About the University of Texas at Arlington

University Profile

The University of Texas at Arlington is a Carnegie Research Institution (High Research Activity) whose mission is the advancement of knowledge and the pursuit of excellence in research, teaching, and service to the community. The mission statement affirms UT Arlington's commitment to expanding academic research; to attracting and retaining high quality faculty scholars who actively engage students; to providing a well-rounded academic experience that promotes student involvement, service learning and free discourse; to employing alternative access venues to meet students' needs; and to developing public and private partnerships.

Founded in 1895 as a private liberal arts institution, UT Arlington has evolved through a succession of names and missions. The institution achieved senior college status in 1959 and became part of The University of Texas System in 1965. The institution, which comprises 409 acres in downtown Arlington, is currently authorized by the Texas Higher Education Coordinating Board to offer 80 baccalaureate, 74 master's, and 31 doctoral degree programs.

UT Arlington currently serves more than 28,000 students, including more than 6,700 graduate students.

The UT Arlington Fort Worth Center serves the Tarrant County region and is committed to meeting the life-long educational needs of working professionals. The center offers upper-division undergraduate and graduate programs and has the flexibility and vision to capitalize on global opportunities that address economic development.

UT Arlington is categorized by *U. S. News & World Report* as "selective" based on the test scores of freshmen applicants (mean composite SAT = 1066), percentage of first-time freshmen applicants accepted (75 percent) and percentage of incoming freshmen who graduated in the top quarter of their high school classes (61 percent).

The student population is non-traditional in many ways. Most students enter UT Arlington as transfers, many with 60 or more hours already completed. The average age of students in fall 2009 was 26, and 38 percent were enrolled on a part-time basis. According to the 2008 Student Survey, 69 percent of UT Arlington students hold jobs, with 32 percent working 21 or more hours per week. It should be noted, however, that the cohort of traditional first-time freshman is growing. The size of the incoming freshman class has almost doubled since 1999, reaching 2,629 in fall 2009. These students have an average age of 18, almost all attend full-time, and about 41 percent live in campus residence halls or apartments.

UT Arlington is one of the most diverse institutions in the nation. In fall 2009, the student population was 14.5 percent African American, 16.5 percent Hispanic, 10.2 percent Asian, 0.5 percent Native American and 10 percent International. It is estimated that the Hispanic student population will be UT Arlington's fastest growing student segment in the coming decades.

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). ORAU is a consortium of 98 colleges and universities, a contractor for the U.S. Department of Energy (DOE), and a strategic partner with Oak Ridge National Laboratories. Located in Oak Ridge, Tennessee, ORAU works with member institutions to help students and faculty gain access to federal research facilities throughout the country; to keep its members informed about fellowship, scholarship, and research opportunities; and to organize research alliances among member institutions.

Undergraduates, graduates, postgraduates, as well as faculty enjoy access to a multitude of opportunities for study and research through the Oak Ridge Institute for Science and Education (ORISE) – a program managed by ORAU for the DOE. 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 http://orise.orau.gov/, 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 and Federal Relations
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)

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 the 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 Services, 710 S. Davis Drive, Office and Classroom Building (OCB), 817-272-2106. E-mail: eoaa@uta.edu. Web site: www.uta.edu/eos.

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.

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.

Constitutionally protected expression cannot be considered harassment under this policy.

Complaints and violations of the policy should be reported to the Office of Equal Opportunity Services, 710 S. Davis Drive, Office and Classroom Building (OCB),

817-272-2106. E-mail: eoaa@uta.edu. Web site: www.uta.edu/eos.

Academic Programs and Degree Offerings

Academic Programs and Degree Offerings

The University of Texas at Arlington is organized into the following academic units:

- College of Business
- College of Education
- College of Engineering
- College of Liberal Arts
- College of Science
- School of Architecture
- College of Nursing
- School of Social Work
- School of Urban and Public Affairs
- Honors College
- Graduate School
- University College

UT Arlington offers baccalaureate degrees in the following areas:

Architecture

- Architecture
- Interior Design

Business Administration

- Accounting
- Business Administration (includes options in Accounting, Economics, Finance, Information Systems, International Business/Modern Language, Management, Marketing, Operations Management, and Real Estate)
- Economics
- Information Systems

Education

- Athletic Training
- Child Studies
- Child/Bilingual Studies
- Exercise Science
- Interdisciplinary Studies
- Kinesiology

Engineering

- Aerospace Engineering
- Civil Engineering
- Computer Science
- Computer Science and Engineering
- Electrical Engineering
- Industrial Engineering
- Mechanical Engineering
- Software Engineering

Liberal Arts

- Anthropology
- Art (Art History, Media, Studio)
- Communication (Advertising, Broadcast Communication, Communication Technology, Journalism, Public Relations, Speech)
- Criminology and Criminal Justice
- English
- History
- Modern Languages (French, German, Russian, Spanish)
- Music
- Philosophy
- Political Science
- Sociology
- Theatre Arts

Nursing

- Nursing

Science

- Biochemistry
- Biology
- Chemistry
- Geology
- Mathematics
- Medical Technology
- Microbiology
- Physics
- Psychology

Social Work

- Social Work

Urban and Public Affairs

- Interdisciplinary Studies

University College

- University Studies

UT Arlington/Fort Worth Center

UT Arlington/Fort Worth Center strives to serve the Tarrant County region 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 as well as upper-division undergraduate programs
- having the vision and flexibility to capitalize on global opportunities that address the economic development needs of the community

UT Arlington/Fort Worth Center has partnered with Tarrant County College (TCC) to offer UT Arlington junior/senior level Business Administration courses that lead to a BBA degree in Management at select TCC campuses as well as the Fort Worth Center Santa Fe Station location.

UT Arlington/Fort Worth offers master's degree programs tailored for working professionals. The Executive MBA cohort program is designed for upper-level executives and can be completed in 15 months. The cohort-based Professional MBA program starts every fall and spring semesters and takes 24 months to complete. The cohort-based Master of Science in Healthcare Administration spans 24 months. The Master of Science in Engineering Management is also cohort in nature and takes 24 months from start to finish. The Scholars of Practice 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. These UT Arlington/Fort Worth Center programs and course offerings are the highest quality and most affordable of their kind in the Tarrant County region.

In addition, UT Arlington/Fort Worth provides select non-credit professional development and continuing education at the Santa Fe Station location.

UT Arlington/Fort Worth Center has two excellent locations in Fort Worth. The Santa Fe Station is located in downtown Fort Worth at 1401 Jones Street, Fort Worth, Texas 76102. Riverbend Park is a satellite

location housing the Master of Education and Master of Science in Systems Engineering graduate programs. Riverbend Park is conveniently located at 7300 Jack Newell Blvd. S., Fort Worth, TX 76118. Please access the UT Arlington/Fort Worth Center Web site, 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 a faculty, staff and student resource for the creation and delivery of online instruction at UT Arlington. Instructional designers and multimedia specialists at the Center work with faculty teachers to develop Internet-based courses and programs, at both the graduate and undergraduate level. The Center for Distance Education also serves as an information and coordination resource for all faculty, staff and students relative to distance education.

UT Arlington's Internet-based courses and degrees are accessed by learners throughout Texas, the United States, and around the world, attracting national attention and award status.

Further information regarding online degree programs is available in this catalog, by referring to the representative academic units. Complete information about distance education activities is available at distance.uta.edu, via e-mail to info@distance.uta.edu, or by calling 1-888-UTA-DIST (882-3478).

The University of Texas at Arlington utilizes a number of media and digital technologies to offer undergraduate and graduate courses and degree programs. Technologies for the delivery of distance education include videoconferencing, cable television, videotape, CD/DVD formats, as well as Internet-based technologies including learning management systems and synchronous online communication tools. For more information, contact the Center for Distance Education at 817-272-5727.

Study Abroad Program

To help students attain the education demanded by today's increasingly interdependent world, UT Arlington offers the opportunity to study overseas while earning credit toward a degree. Some programs involve direct enrollment in an overseas institution, while others are led by faculty members. Year, semester and summer programs are available. Fluency in another language is not a prerequisite.

Program offerings vary but typically include such countries as Australia, China, England, France, Italy, Korea, Malaysia, Mexico, New Zealand, Norway, Russia and Eastern Europe, Spain and Thailand. Students can find more information about these programs in the Study Abroad Reference Library in the Office of International Education, Swift Center, by visiting www.uta.edu/oie, or by calling 817-272-1120. Application deadlines for spring programs are typically in early October. Deadlines for most summer and fall programs are usually in mid-March.

Most financial aid that students would normally receive for studying at the University may continue to be utilized during a UT Arlington study abroad program. Participants are also eligible to apply for an International Education Fee Scholarship (IEFS). Applications are available from the Office of International Education and are due October 20 for spring programs, and March 31 for summer and fall programs.

Additional information regarding study abroad opportunities may also be available from individual academic departments.

Transfer Programs

The course offerings of the University are sufficient in the following fields for a student to complete the first two years of study toward a baccalaureate degree. The student must transfer to another institution to complete their studies. Information about the programs may be obtained from the Allied Health Coordinator in Room 351, Life Science Building.

Two-year transfer programs

- Gerontology
- Dietetics
- Occupational Therapy
- Pharmacy
- Dental Hygiene
- Rehabilitation Science
- Prosthetics and Orthotics

Professions

Medicine and Dentistry

In general, medical and dental school admission committees do not state a preference about an undergraduate major field, leaving the student free to choose a degree program suited to individual abilities and interests. Therefore, the student may choose any major, after conferring with an advisor, if the minimum requirements stated by the professional schools are met.

Admission Requirements for The University of Texas Medical and Dental Schools

English

One year of college English

Biology

Two years, as required for college science majors; one year must include formal laboratory work

Mathematics

One-half year of college calculus; mathematics is not required for admission to dental school

Physics

One year, as required for college science majors

Chemistry

One year of general chemistry and one year of organic chemistry, as required for college science majors, including the corresponding laboratory experience

Test

New Medical College Admission Test (New MCAT) or Dental Aptitude Test (DAT) as required

These requirements are representative of admission requirements for most other American medical and dental schools.

Health Professions Counseling and Advising

The Health Professions Counseling and Advising Center, located in Room 206, Life Science Building, provides counseling for students interested in medicine, dentistry, optometry, pharmacy and veterinary medicine. All pre-professional students should contact the office upon entering the University. The services provided include

new student orientation, academic advising, career counseling and assistance in applying to professional school. In addition, numerous career materials including catalogs, applications and testing information are available in Room 206, Life Science Building. The health professions counselor coordinates the Health Professions Advisory Committee's evaluation recommended for each premedical and pre-dental student before applying to professional school. Students applying to professional schools should contact the health professions counselor at least one year prior to applying.

The Health Professions Advisory Committee, which is responsible for recommending students for medical and dental schools, bases evaluations on two factors: a student's academic record and personal qualities. The ideal applicant will demonstrate strength in both areas. The committee may decline to recommend students who have not completed at least a portion of his/her premedical sciences at The University of Texas at Arlington, or may be unable to recommend students because their personal qualities are not known. Therefore, it is important that a student actively participate in health profession programs involving medical schools and the Medical Dental Preparatory Association. Also, students should interact with the faculty and premedical advisor for at least one year prior to medical school application so the advisors will have an opportunity to become familiar with the students' individual background.

The Legal Profession

Law schools do not generally prefer any major field for undergraduate preparation. Consequently, pre-law students are free to choose the degree program that best suits their interests and abilities. Students who desire a pre-law education should choose a major and consult the advisor in the major department and/or in the University Advising Center early in their undergraduate career. Law schools do not customarily list required courses. It is recommended, however, that students choose courses from among those offered in the following areas:

- Accounting
- American and English History
- Business Administration
- Criminal Justice
- Economics
- English, Literature and Speech
- Latin
- Mathematics
- Philosophy, Logic and Scientific Method
- Political Science
- Psychology
- Sciences
- Sociology

Enterprise Development

The Division of Enterprise Development (formerly Continuing Education) provides lifelong learning opportunities for individuals of all ages who are interested in self-improvement, and contributing to their professional and personal growth. Continuing Education classes, notable for their diversity, are non-degreed and are offered under a variety of formats. Enrollment at the University or previous collegiate background is not necessary.

Professional and technical certifications are offered in Project Management, Paralegal, Microsoft, UNIX, Oracle and many more topics. Other programs enable individuals to begin a career in the healthcare industry such as becoming a pharmacy technician, patient care technician, dental assistant, veterinary assistant, or medical billing and coding specialist. Preparatory course for the GMAT, GRE, LSAT, and SAT are also

scheduled routinely. In our computer labs, classes are available at all skill levels covering a wide range of software applications including Microsoft, Adobe, Macromedia, and AutoCAD, as well as variety of programming languages. For pleasure and personal enrichment, classes are offered in such diverse interests as art, cake decorating, dance, gardening, languages, music, photography, travel and wellness. For corporate customers, training and professional development opportunities can be specialized to meet specific business needs.

Courses are scheduled during weekdays, evenings and weekends for the convenience of the customer. Registration fees vary. For more information, contact the Division of Enterprise Development by calling 817-272-2581 or visit www.uta.edu/ced for a complete schedule of classes. Registration and payment can be made over the Internet, in person, by mail or by faxing 817-272-2556.

Academic Regulations

Student Responsibility

While University faculty and staff members give students academic advice and assistance, each graduate and undergraduate student is expected to take responsibility for his or her education and personal development. The student must know and abide by the academic and disciplinary policies given in this catalog, including rules governing quantity of work, the standard of work required to continue in the University, scholastic probation and dismissal, and enforced withdrawal. The student must also know and meet the requirements of his or her degree program, including the University's core education requirements; must enroll in courses appropriate to the program; must meet prerequisites and take courses in the proper sequence to ensure orderly and timely progress; and must seek advice from appropriate University representatives about degree requirements and other University policies when necessary. The student must also know and adhere to all University deadlines.

Once a student registers for classes, the University commits resources to provide registered students with instruction by qualified faculty and sufficient class space for the course. Thus, upon registration, a student assumes full responsibility for either paying fees in full by a prescribed due date, or notifying the University in an appropriate time frame that he/she will not attend and take all appropriate action as prescribed to drop a course(s) and/or officially withdraw from the University.

A student's registration is not automatically cancelled for non-attendance. A student should either pay fees in full by the designated deadline or take the appropriate steps to withdraw. To avoid financial responsibility to the University, this cancellation of enrollment must be completed as soon as possible, but no later than the day before the first official University class day. Prompt notification also helps to free up class space for other students who are interested in the same classes.

Courses in the Schedule of Classes are subject to change. Although unusual, a section may be cancelled due to low enrollment or staffing considerations. The department that cancels the class should notify any students already enrolled and assist with alternate arrangements. At the beginning of the semester, students should

always check for changes regarding class meeting times or classroom locations.

The student must verify his or her schedule of classes each semester, must see that necessary corrections are made, and must keep documentation of all schedule changes and other transactions.

E-mail is a prime means for communication. Therefore, the University has the right to send communications to students via e-mail and the right to expect that those communications will be received and read in a timely fashion. The Office of Information Technology (OIT) will assign all students an official University e-mail address. It is to this official address that the University will send e-mail communications. Students are expected to check their official e-mail account on a frequent and consistent basis to stay current with University communications. The University recommends checking e-mail daily; in recognition that certain communications may be time-critical.

The student must give current and correct local and permanent addresses and telephone numbers to the Office of Admissions, Records and Registration and must notify this office immediately of any changes. Official correspondence may be mailed, versus e-mailed, to the appropriate address depending upon the nature of the correspondence and the academic calendar; if the student has moved and failed to correct this address, he or she will not be relieved of responsibility on the grounds that the correspondence was not delivered.

All students should be familiar with the following sources of information:

University Undergraduate and Graduate Catalogs. The catalogs give important information about academic policies and procedures that apply to all students. The official academic calendar, admission procedures and residence requirements, and policies on quantity of work, grades and the grade point average, credit by examination and correspondence course work, adding and dropping courses, withdrawal from the University, and scholastic probation and dismissal are all included in the catalog. These catalogs also give historical and current information about the University's organization and physical facilities. The services of the Vice President for Student Affairs, the libraries and research facilities that support the University's academic programs are also described in these catalogs.

The Undergraduate Catalog gives information about degrees offered by the undergraduate divisions and lists the faculty. The chapter for each college or school describes the academic policies and procedures that apply to students in that division and lists the division's undergraduate degree programs and courses. The Graduate Catalog gives similar information about graduate programs. Catalogs are available online at www3.uta.edu/registrar .

The Course Schedule. The Schedule of Classes on the Web at MyMav is published by the Office of Admissions, Records and Registration and is available before registration for each semester, winter intersession, summer intersession, and summer session. It includes information about registration procedures; times, locations, instructors, prerequisites, and special fees of courses offered; and advising locations.

The University Directory. The University directory is published and distributed by Student Congress each fall. It gives addresses and telephone numbers of University offices and of students, faculty, and staff members.

Dean's Offices. Students are responsible to the appropriate Dean of a College or School. Undeclared students are responsible to the Director of the University Advising Center. In each college/school, the office of the assistant or associate dean serves as a central source of information about academic affairs and student services.

Academic Advising. The responsibilities of the advisor at UT Arlington are to empower students to discover and attain their academic and life goals; to serve as an advocate for student success; to serve as an interface to university services; and to provide accurate information about academic requirements and standards in a timely and efficient manner.

The student is responsible for seeking academic advice, for enrolling in appropriate courses to insure progress toward a degree, for timely completion of his or her academic program, for familiarity with the appropriate Catalog, and for maintaining University standards. Assistance from an academic advisor is not a substitute for the personal responsibility of the student described above.

The student should consult the advising office in his or her department or, if he or she is undeclared, the University Advising Center for information not provided in the publications listed above. A student who is in doubt about any University regulation should always seek clarification before proceeding.

General

Any student who registers to attend classes at UT Arlington and is ineligible to attend for academic or disciplinary reasons will be dropped automatically from the rolls of the University.

Students are required to report promptly any change in their U.S. address to the Office of Admissions, Records and Registration or change it through MyMav.

Maximum Semester Load

Without permission from the appropriate academic dean, a student may not register in a fall or spring semester for more than 19 hours at UT Arlington or concurrently at UT Arlington and another institution. Any student who violates this regulation may be required to drop hours to comply with the 19-hour rule or may be denied transfer credit for those hours in excess of 19 taken at another institution.

A student who registers in the summer sessions for more than 14 hours without permission from the academic dean may be required to drop sufficient hours to comply with the 14-hour limit. The table below indicates the combinations of course work for which a student may enroll and stay within the maximum load of 14 hours.

Combination of Summer Semester Hours Permitted

Maximum each:

5-week session	+	11-week session
7	+	0
6	+	2
5	+	4
4	+	6

3	+	8
2	+	10
1	+	12
0	+	14

A student may register for a maximum of three hours during the Winter Intersession and Summer Intersession terms.

Class Attendance

Class attendance and lateness regulations will be established by instructors and announced to their classes. At the discretion of the instructor, such regulations may or may not include provisions for making up work missed by the student as a consequence of an absence. Students who are late to class are responsible for reporting their presence to the instructor after the class is dismissed.

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.

If the student is called to active military duty or participates in active military service for a reasonably brief period, the student will be allowed to complete an assignment or exam within a reasonable time after the absence (Section 51.9111 Texas Education Code; 19 Texas Administrative Code §4.9.) Students called to active duty for longer periods of time, should contact the Office of Admissions, Records & Registration (Section 54.006).

Observance of Religious Holy Days

Students who must miss 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 (19 Texas Administrative Code §4.4).

A religious holy day means a holy day observed by a religion whose places of worship are exempt from property taxation under Section 11.20 of the Tax Code. A student will be excused from attending classes or completing other required activities, including examinations for the observance of a religious holy day. The period of the excused absence will include time for any travel needed to fulfill that religious obligation. The student will be given the opportunity to complete the work missed, within a reasonable time period following the absence, provided the student has properly notified the instructor. The instructor must be notified in writing at least one week in advance of the absence and the student must arrange with the

instructor to make up missed work or examinations. The instructor is 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 the instructor and the student disagree about whether an absence constitutes a religious holy day as defined above, or if there is similar disagreement about whether the student has been given reasonable 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.

75 Hours to Undergraduate Major Policy

Applies only to students who enter the University in Fall 2006 and thereafter

1. Undergraduate students must be admitted to a major before they accumulate 75 semester credit hours. An enrollment hold will be placed on students exceeding this limit who have not been admitted to a major. To have the enrollment hold removed, students who have not been admitted to a major by the time they have reached 75 hours must see an academic advisor in the University Advising Center. The decision to admit a student to a major resides with the academic department and the department may establish independent admission criteria, pre-requisites, and other admissions conditions. Students who have reached 60 hours and have not declared a major will be notified of this policy.

2. Students transferring to UT Arlington with 75 or more hours should be admitted directly into a major. The decision to admit a student to a major resides with the academic department and the department may establish independent admission criteria, pre-requisites, and other admission conditions. Students who are unable to be admitted to a major of their choosing must see an academic advisor in the University Advising Center for special permission to enroll.

Academic Probation and Dismissal

Academic probation and dismissal regulations apply to all undergraduate students except provisionally and conditionally admitted students until they have met the requirements for regular admission.

A student must maintain a minimum cumulative grade point average (GPA) at UT Arlington to remain academically eligible to register for the subsequent semester or summer session. The minimum average required varies with the total number of college credit hours attempted at UT Arlington and is shown in the Table of Academic Standards.

Students on academic probation may not take more than 14 semester hours without permission of their college/school dean, or if undeclared, the director of the University Advising Center. Academic advisors may further limit the number of hours and overall difficulty of the students' schedules, require students to take specific courses deemed necessary to their education,

prevent students from taking unsuitable courses, require students to attend advising sessions, and take other actions approved by the dean of their college/school or the director of the University Advising Center to assure the students' attention to their academic deficiencies.

Students on academic probation cannot hold office in any club or organization, represent UT Arlington at any official or social event, or make any University trip without the permission of the appropriate dean or the University Advising Center.

Table of Academic Standards for Continuance

The cumulative University grade point average is calculated on the basis of all work undertaken at UT Arlington, including credit by examination, correspondence and extension, for which a letter grade is given. (The symbols P, Q, W, X and Z are not considered in calculating the grade point average.) Grades earned at any institution other than UT Arlington are not used in calculating the University grade point average, but semester hours of transfer credit accepted by UT Arlington are added to hours taken at the University to determine the total college hours undertaken.

Table of Academic Standards

Total College Hours Undertaken	UTA GPA for Academic Probation	UTA GPA for Academic Dismissal
0-29	less than 2.00	less than 1.60
30-59	less than 2.00	less than 1.80
60 or more	less than 2.00	less than 2.00

Probation and Dismissal

Rules governing academic probation and dismissal, as well as exceptions permitting continuance and special college regulations, are given below.

1. Change of Academic Status

Academic status is determined when grades are reported at the end of each fall and spring semester and at the end of the entire summer session. Although a student's cumulative grade point average may change between these grade-reporting periods (e.g., by recording a final grade in place of an I), the student's academic status is not changed until the next official grade-reporting period during which the student is enrolled at the University.

2. Removal from Academic Probation

Students on academic probation who achieve a 2.0 or higher cumulative GPA at the end of a grade-reporting period during which they are registered at the University will be removed from academic probation. Removal from probation will be reflected on the student's permanent academic record.

3. Academic Warning

Before a student is dismissed from the University, the student is on academic warning. At the end of the warning semester, the student must earn a cumulative GPA that meets or exceeds the appropriate values in the Table of Academic Standards or a semester GPA of at least 2.5 to avoid dismissal.

4. Academic Continuance

After receiving an academic warning, students who earn a GPA of 2.5 or higher on a minimum of three semester credit hours each subsequent semester are given a one-semester continuance. After returning from a one- or a two-semester dismissal, students who fail to continuously earn a semester GPA of 2.5 or higher and/or reach appropriate Table of Standards values are dismissed for a 12-month period.

5. Academic Dismissals

Students placed on academic dismissal for the first time are eligible to continue enrollment after not having attended UT Arlington for one regular semester (fall or spring).

Students placed on academic dismissal for a second or subsequent time are eligible to apply for readmission after having not attended UT Arlington for a minimum 12-month period. After this time period, students may petition for reinstatement to the dean of the college/school in which they wish to major. Undeclared students petition the director of the University Advising Center. Students may obtain petition for readmission forms at the deans' offices or the University Advising Center. If the petition for reinstatement is disapproved, a student may not file another petition until the following semester. Appeal of a denial for reinstatement may be made to the Office of the Provost within two weeks after the notice of the denial is mailed. The decision of the Office of the Provost is final.

6. Students in Degree Programs

Students on academic probation (see the catalog section titled Academic Probation and Dismissal) who have been accepted into a degree program are subject to all additional rules governing the definition and terms of academic probation established by the program in which they are enrolled. The appropriate sections of this catalog and the offices of the academic deans should be consulted for specific requirements.

Students dismissed from a degree program or leaving a degree program voluntarily may transfer to another major or pre-major with the permission of the dean of the receiving college/school, or to undeclared status with the approval of the director of the University Advising Center.

Academic dismissal is reflected on the student's permanent academic record.

Freshman Potential for Academic Success Policy

Effective Fall 2006, freshman students who earn less than a 2.0 grade point average during their first semester at UT Arlington will be required to enroll in and satisfactorily complete a one-hour course (EDUC 1131: Potential for Academic Success Seminar Freshman PASS) during the following long term. The course is designed to build academic study skills related to college success.

1. Students may not employ the grade exclusion policy to avoid taking the Freshman PASS course.
2. Students who do not enroll in an appropriate section of EDUC 1131 (Freshman PASS) by the Friday prior to the first day of classes will be dropped from all coursework for the term.
3. Students who are required to take EDUC 1131 for the Freshman PASS program must receive a grade of "P" (passing grade) in the course in order to remain enrolled in future academic sessions. Students who receive a grade of "F" (failing grade) in the course will be dropped from future academic sessions for which they are enrolled and

future attempts to enroll will be blocked. Appeals for future enrollment will be considered by the Director of the University Advising Center.
4. Students who have already satisfied a version of EDUC 1131 through other affiliated programs (i.e., FIGs, Athletics, Major Exploration) must retake this course for the Freshman PASS program.
5. Academic colleges, schools and departments determine if any EDUC 1131 course may be used to satisfy degree requirements.
6. Students who were admitted to the University through a provisional program, such as Gateway Advantage, are not eligible to take this course to remain enrolled at the University.

Institutional Grading Policies

1. Computation of the Grade Point Average

The cumulative University grade point average for an undergraduate student is calculated on the basis of all work undertaken at UT Arlington for which a letter grade is recorded unless the course is repeated under the Grade Replacement Policy or removed from the calculation under the Grade Exclusion Policy. Courses in which the symbol I, P, Q, W or Z is recorded are excluded in calculating the grade point average.

The following grade procedure is used:

Grade	Description	Grade Points Per Semester Hour
A	Excellent	4
B	Good	3
C	Fair	2
D	Passing, Below Average	1
F	Failure	0
P	Pass	0
Q	Withdrawn*	0
W	Withdrawn	0
X	Incomplete	0
Z	No Credit	0

*Does not count towards maximum six course drop policy, see “State Limits on Dropped Courses”

Grade Scores

Although a grade of D may be sufficient for an undergraduate to earn credit in a course, a cumulative University grade point average of at least 2.00 © is necessary for satisfactory progress toward a degree. A grade of I (incomplete) may be assigned for a course if, in the opinion of the instructor, there are extenuating circumstances which prevent the student from completing the required work within the semester of enrollment for the course. The incomplete must be removed by the end of the final examination period of the following semester, excluding the summer session, for the student to receive credit for the course. If the incomplete is not removed

during the allotted time period, it will convert automatically to an F. As long as the grade is carried as an I, it will not be used in the calculation of the student's grade point average. A student should not re-enroll in a course for which an I remains the grade of record. A course for which the symbol I, P, Q, W or Z is given does not count as hours undertaken for the purpose of calculating the grade point average, and no grade points are earned. A course taken and passed on the pass/fail basis, including developmental courses, does count as hours undertaken, but no grade points are earned.

2. Effect of Grades in Courses Repeated

A student may repeat any course except as limited by individual colleges and schools, provided the student's grade earned in an earlier semester is below C. Courses transferred for credit to UT Arlington from another college or university may not be repeated for credit. A student may not repeat a course for additional hours toward a degree unless the catalog description specifically states that the course may be repeated for credit.

Courses originally taken or repeated at another college will not affect a student's grade point average at UT Arlington. If a student earned a grade of less than C in a course taken at UT Arlington, the student may take that course or its equivalent at another college or university for transfer to UT Arlington only with the prior written approval of the student's major department chair or academic dean.

3. Grade Replacement and Grade Exclusion Policies

Grade Replacement Policy: This policy may be utilized by any student who has already completed a grade replacement for one or more courses at UT Arlington before the first day of classes for Fall 2006. The grade replacement policy is as follows: Upon receiving a grade of D or F in a course, a student may, after filing an intent to do so, replace the grade by repeating the course. The second grade earned, whether higher or lower, will be used in calculating the grade point average unless the second grade is a W. This policy applies only the second time a course is attempted. Both grades received will be shown on the student's transcript. This policy will apply to a maximum of 10 credit hours at UT Arlington. Courses transferred for credit to UT Arlington from another college or university may not be repeated for credit. Students must file their intention to replace a grade with the Office of Records (Registrar). This policy will not apply to courses that may be repeated for credit nor to courses taken on a pass/fail basis. This policy is not applicable to graduate students *and is not retroactive in that a grade in a course taken prior to adoption may be replaced, but a grade earned in a course prior to adoption (fall 1994) may not be used as a replacement*. Individual colleges and schools may limit this policy. Students may not apply this policy to grades of D or F which result from disciplinary action. Students who have already completed a grade replacement for one or more courses at UT Arlington are not eligible to utilize the grade exclusion policy.

Grade Exclusion Policy: As of the first day of classes Fall 2006 and after, new students are eligible to utilize the grade exclusion policy.

Upon receiving a D or F in a course, a student may file a request with the Office of Admissions, Records and Registration for grade exclusion. The following conditions apply:

- Students seeking grade exclusion must receive counseling from the

following as appropriate: Academic Advisor to determine effect on completion of degree requirements and probation requirements, Financial Aid Office if receiving a scholarship or financial aid administered by that office, Athletic Department if a student athlete, International Office if an international student

- Grade exclusion requests must be made using a grade exclusion form available from the Office of the Registrar. The request must be approved by the academic dean from the student's major College/School.
- The course grade will be removed from the academic GPA; although the grade received will remain on the student's transcript.
- This policy will apply to a maximum of three courses at UT Arlington and will not apply to courses that may be repeated for credit or to courses taken on a pass/fail basis. Of the three courses, only one course can be 3000/4000 level.
- This policy is not applicable to graduate students.
- Individual colleges and schools may limit this policy.
- Students may not apply this policy to grades of D or F which result from disciplinary action.
- Students who are dismissed from the University for academic reasons cannot use a grade exclusion until their dismissal period is completed.
- Excluded grades will be included in the calculation of GPA for determining graduation with Latin Honors.
- Excluded hours will count toward the 30 hr/45 hr policy for Tuition for Excessive Undergraduate Hours.
- Tuition and fee refunds, rebates or other financial consideration will not be given for courses for which grade exclusion is granted.
- Once a course has been excluded, a student may not later have the exclusion removed.
- Excluded courses cannot be used to satisfy degree requirements.
- Students must be enrolled at UT Arlington on Census Day of the semester that the grade exclusion, if approved, is processed.

4. Pass/Fail Program (Engineering, Liberal Arts, Science, Nursing)

Students who are majors in the colleges of Engineering, Liberal Arts or Science, or in the School of Nursing may take courses on a pass/fail basis subject to differing rules established by these academic units. This policy is intended to offer students an opportunity to take courses that will broaden their education with less immediate emphasis on the need to achieve grade points. However, an F received in a pass/fail course will be evaluated the same as an F received on a regular basis, adversely affecting the grade point average. Students must inform the instructor of their intention to take a course on a pass/fail basis by the Census Date of the semester. Complete details and requirements of each college are available in the offices of the academic deans and in the departmental offices of the colleges.

Developmental Course Grades: Students assigned to developmental courses, as a result of TSI status will be graded on a pass/fail basis.

5. Grade Reports

Semester Reports from the Office of Admissions, Records and Registration: Grades are available on the Web at MyMav. Grades are posted at the end of each

regular, summer, and intersession semester. The grade reported at the end of a semester is the official and permanent evaluation of a student's performance in a given course. Official grade report copies are available in the Office of Admissions, Records and Registration for those students who need official verification for tuition reimbursement and other external programs. Students with transcript holds will not be able to access their grade reports.

Progress Reports: Freshmen, first term transfers, athletes, undergraduates with a cumulative GPA of 2.25 or lower, and undeclared majors will receive an interim grade report. The progress report is not recorded on the student's permanent record. It is for information purposes only and is intended to benefit the student, advisors and instructors. The grade reported at the end of a semester or term is the official and permanent evaluation of a student's performance in a given course.

6. Student Grievance Procedures Related to Grades

In attempting to resolve any student grievances regarding grades, it is the student's obligation first to make a serious effort to resolve the matter with the individual with whom the grievance originated. Individual course instructors retain primary responsibility for assigning grades. The instructor's judgment is final unless compelling evidence shows discrimination, preferential treatment or procedural irregularities. If students wish to appeal, their request must be submitted in writing—on an appeal form available in departmental or program offices—to the department chair or program director. The student has one calendar year from the date the grade is assigned to initiate the grievance. The normal academic channels are department chair or program director, academic dean and the Office of the Provost. However, before considering a grievance, the department chair or program director (dean) will refer the issue to a departmental or program (college/school) committee of faculty. If the committee cannot reach a decision acceptable to the parties involved, the matter will follow the remaining academic channels. The decision of the provost is final. Information specific to the procedures to be followed in each academic unit is available in the office of the academic dean.

The dean of the college or school in which a student is enrolled, or the director of the University Advising Center if the student has not declared a pre-major or major, has jurisdiction over the student's program of study, degree requirements and all other academic matters including grievances. However, students taking a course in a college or school other than the one in which they are primarily registered are subject to the dean of the college or school in which the course is offered concerning the course and academic grievances regarding the course.

For issues involving scholastic dishonesty, see the Academic Dishonesty entry in this section of the catalog.

Schedule Changes (Adds and Drops)

Adds and drops may be made through late registration either on the Web at MyMav or in person by contacting their major academic department (or the University Advising Center for undeclared students). Drops may continue in person until a point in time two-thirds of the way through the semester, session, or term. Students are responsible for adhering to the following regulations concerning adds and drops.

a. A student may not add a course after the end of the late registration period.
b. No grade is posted if a student drops a course before 5:00 p.m. on the Census Date of that semester/term.
c. Students who enrolled in a Texas public institution of higher education as a first-time freshman in fall 2007 or later are permitted to drop no more than six courses during their entire undergraduate career. This limit includes all transfer work taken at a Texas institution of higher education and to second baccalaureate degrees. This statute was enacted by the State of Texas in spring 2007 (Texas Education Code 51.907, and Texas Administrative Code §4.10). Any course that a student drops is counted toward the six-course limit if

   "(1) the student was able to drop the course without receiving a grade or incurring an academic penalty;

   (2) the student's transcript indicates or will indicate that the student was enrolled in the course; and

   (3) the student is not dropping the course in order to withdraw from the institution."

   A UT Arlington student affected by this statute who has attended or plans to attend another institution of higher education should become familiar with that institution's policies on dropping courses. This statute applies across all Texas public institutions, but procedures for implementation may vary between institutions. Students affected by this policy may request an exemption to the policy by submitting a "Petition for Exemption to 6-Course Drop Policy" form. Students who enroll in coursework at more than one institution of higher education have an obligation to keep track of the number of dropped courses across all institutions and ensure that they do not exceed the six dropped course limit.
d. A student may drop a course with a grade of "W" until the two-thirds point of the semester, session, or course offering period. A student may drop a course after that point only upon approval of the appropriate official. A student may request an exception to the late drop policy by submitting a "Petition for Late Drop or Withdraw" request.
e. Exceptions to this policy may be entertained because of extraordinary non-academic circumstances. Under such circumstances, approval must be received from the instructor, department chair, dean, and the Office of the Provost.

Students wanting to drop all courses for which they are enrolled must withdraw from the University for that semester/term. (Students should follow the procedure in the Withdrawal section of the Undergraduate Catalog.)

Withdrawals

Effective May/Summer terms 2006, a student may withdraw from all courses, from the first class day until a point in time two-thirds of the way through the semester/term, by contacting their major academic department (or the University Advising Center for undeclared students) for appropriate advisement and removal from the coursework. For students who entered a

Texas public institution of higher education as a first-time freshman in fall 2007 or later, withdrawal from all courses for a given semester does not count against the 6-dropped course limit imposed by Texas Education Code 51.907.

Requirement to Update Academic Records

UT Arlington students who also enroll at other institutions of higher education have an obligation to ensure that UT Arlington has a complete and accurate academic record. Students who enroll in coursework at other institutions must transfer a record of that coursework to UT Arlington's Office of Admissions, Records and Registration at the conclusion of each semester.

Honor Roll

Students with excellent grades will be recognized by being listed on the Honor Roll. The Honor Roll will include those students who have both:

- 30 semester credit hours earned in residence with a GPA of not less than 3.0

and

- 12 semester credit hours earned in the current semester, not including pass/fail work, with a GPA for the semester of not less than 3.0

Satisfactory Scholastic Progress

A student is considered to be making satisfactory scholastic progress when:

- The student meets the following minimum grade point average standards:

Total Credit Hours Completed	Minimum GPA
0-29	1.6
30-59	1.8
60 or more	2.0

Including transfer credit; based on classification at the end of the first semester at UT Arlington

Based on UT Arlington courses only

- The student has completed the following minimum number of hours in the last semester in which the student enrolled for six or more hours at UT Arlington:

Enrollment as of Census Date	Minimum Completion
12 or more	8
9-11	6
6-8	3
0-5	0

- The student has completed an increment of the declared degree objective sufficient to permit completion of the baccalaureate degree or other undergraduate study

with 12 semesters of full-time study or its equivalent. All summer terms are considered together as one semester.

In extenuating circumstances, exceptions to the satisfactory scholastic progress regulations may be approved.

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 course work, plagiarism (offering the work of another as one's own) and unauthorized collaboration with another person. Students found responsible for dishonesty in their academic pursuits are subject to penalties that may range from disciplinary probation to suspension or expulsion from the University.

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 Judicial Affairs Web site at www.uta.edu/studentaffairs/conduct/.

Final Review Week

A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week unless specified in the class syllabi. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week.

Final Examinations

Final examinations are scheduled at the end of each semester. In some courses, a departmental final examination is given. Final examinations will be given only at the time printed in the official class schedule. Exceptions must be approved in advance by the academic dean.

Classification

Students at UT Arlington are classified in accordance with the number of semester hours earned. Hours earned are interpreted as hours passed at UT Arlington plus hours accepted in transfer from other institutions and/or credit by examination.

- Freshman: One who has earned fewer than 30 hours.
- Sophomore: One who has earned 30 hours but fewer than 60 hours.
- Junior: One who has earned 60 hours but fewer than 90 hours.
- Senior: One who has earned 90 hours or more.
- Degreed: One who has earned a bachelor's degree or higher and is enrolled as an undergraduate.

Family Educational Rights and Privacy Act (FERPA)

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. 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 Office of Admissions, Records and Registration 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. Requests will not be accepted by telephone or from persons other than the student without that student's written permission. Upon request, the University discloses education records without consent to officials of another school in which a student seeks or intends to enroll. The University has the right to prohibit the release of academic records if there is a debt owed to the institution.

The **Family Educational Rights and Privacy Act (FERPA) of 1974** provides that a university may release directory-type information about students. In addition, research papers and theses authored by students will be available to interested members of the public. The information released may include the following items: the student's name, address, electronic mail address (UTA-issued e-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 also may be withheld by editing your profile at 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 insure that their records are not inaccurate, misleading or in violation of other rights of the 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.

For admission, applicants are requested to submit their Social Security number, which serves as the basis for identification of various University records. Usage will vary according to requirements of the office in which the record is located.

A more detailed statement of the records policy is available in the Office of the Vice President for Business Affairs and Controller, Finance and Administration Annex.

Student Right-to-Know and Campus Security Act

Campus Security and Safety Guidelines

In case of emergency or to report a crime in progress, contact the UT Arlington Police at (817) 272-3003.

For all other security and safety issues, dial (817) 272-3381 or visit the Campus Police homepage.

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.

Campus security policies include:

- 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 and life safety policies and procedures.
- Campus-wide emergency notification procedures in case of immediate threat or campus evacuation (MavAlert).

To learn more how to prevent crime or to respond to emergency situations, visit the "Students Know What To Do" website at http://policy.uta.edu/index.php?navid=11103890.

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

Gang-Free Zones. To promote campus safety and deter crime, premises owned, rented or leaded 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.

Missing Student Notification Policy. If a member of the University community has reason to believe that a student who resides in on-campus housing is missing, he or she should immediately notify the UT Arlington Police Department at 817-272-3381.

Students residing in on-campus housing have the option to identify confidentially an individual to be contacted by UT Arlington in the event the student is determined to be missing for more than 24 hours. Contact information will be accessible only to

authorized campus officials and law enforcement and will not be disclosed outside of a missing person investigation. To designate a confidential contact, contact Apartment and Residence Life at (817) 272-2926. More details can be found at http://www.uta.edu/policy/documents/police/campus-safety-report.pdf

Graduation Rates

As of August 31, 2006, the graduation rate was 38.9 percent for students who entered The University of Texas at Arlington in fall 2000 on a full-time basis as first-time, degree-seeking freshmen.

Common Course Number Index

Common Course Number Index

UT Arlington is a participant in the Texas Common Course Numbering System designed to facilitate the transfer of lower-division academic courses between colleges and universities in Texas. Each UT Arlington course listed below has been determined to be substantially equivalent to the common course shown beside it. In the appropriate sections of the catalog, the dual course numbers will be listed side by side for easy identification. For the Texas Common Course Numbering System online matrix, please visit www.tccns.org.

Texas Education Code, Section 61.830.

Texas Common Course Number	UT Arlington Course Number
ACCT 2301	ACCT 2301
ACCT 2302	ACCT 2302
ANTH 2302	ANTH 2339
ANTH 2346	ANTH 1306
ANTH 2351	ANTH 2322
ARTS 1301	ART 1301
ARTS 1303	ART 1309
ARTS 1304	ART 1310
ARTS 1311	ART 1305
ARTS 1312	ART 1306
ARTS 1316	ART 1307
ARTS 1317	ART 2308
ARTS 2316	ART 2371
ARTS 2356	ART 2359
BIOL 1306	BIOL 1333
BIOL 1307	BIOL 1334
BIOL 1322	BIOL 1301
BIOL 1406	BIOL 1441
BIOL 1407	BIOL 1442
BIOL 2306	BIOL 2311
BIOL 2401	BIOL 2457

BIOL 2402	BIOL 2458	CRIJ 1301	CRCJ 2334
BUSI 1301	BUSA 2304	CRIJ 2314	CRCJ 2340
CHEM 1311	CHEM 1301	DANC 1141	DNCA 0135
CHEM 1312	CHEM 1302	DANC 1145	DNCA 0132
CHEM 1405	CHEM 1445	DANC 1147	DNCA 0136
CHEM 1408	CHEM 1446	DANC 1210	DNCA 0134
CHEM 1411	CHEM 1441	DRAM 1120	THEA 0181
CHEM 1412	CHEM 1442	DRAM 1310	THEA 1343
CHEM 2123	CHEM 2181	DRAM 1330	THEA 1304
CHEM 2125	CHEM 2182	DRAM 1342	THEA 2306
CHEM 2323	CHEM 2321	DRAM 1351	THEA 1307
CHEM 2325	CHEM 2322	DRAM 1352	THEA 2352
COMM 1307	COMM 1300	DRAM 2336	THEA 1302
COMM 1316	COMM 2340	ECON 2301	ECON 2305
COMM 2309	JOUR 1345	ECON 2302	ECON 2306
COMM 2310	JOUR 2346	ENGL 1301	ENGL 1301
COMM 2327	ADVT 2337	ENGL 1302	ENGL 1302
COMM 2331	BCMN 1355	ENGL 2322	ENGL 2319
COSC 1301	CSE 1301	ENGL 2326	ENGL 2329
COSC 1317	CSE 1306	ENGL 2331	ENGL 2309
COSC 1320	CSE 1310	ENGR 1304	DG 1350

ENGR 2301	AE 1312	HIST 1302	HIST 1312
ENGR 2302	AE 2323	HIST 2311	HIST 2301
ENGR 2305	EE 2315	HIST 2312	HIST 2302
FREN 1411	FREN 1441	HIST 2313	HIST 2313
FREN 1412	FREN 1442	HIST 2314	HIST 2314
FREN 2311	FREN 2313	LATN 1411	LATN 1441
FREN 2312	FREN 2314	LATN 1412	LATN 1442
GEOL 1403	GEOL 1425	LATN 2311	LATN 2313
GEOL 1404	GEOL 1426	LATN 2312	LATN 2314
GEOL 2409	GEOL 2445	MATH 1314	MATH 1302
GERM 1411	GERM 1441	MATH 1316	MATH 1303
GERM 1412	GERM 1442	MATH 1324	MATH 1315
GERM 2311	GERM 2313	MATH 1325	MATH 1316
GERM 2312	GERM 2314	MATH 1342	MATH 1308
GOVT 2305	POLS 2311	MATH 1348	MATH 1325
GOVT 2306	POLS 2312	MATH 2314	MATH 2325
GREE 1411	GREK 1441	MATH 2315	MATH 2326
GREE 1412	GREK 1442	MATH 2413	MATH 1426
GREE 2311	GREK 2313	MATH 2414	MATH 2425
GREE 2312	GREK 2314	MUSI 1116	MUSI 1185
HIST 1301	HIST 1311	MUSI 1117	MUSI 1186

MUSI 1166	MUSI 1104	PHIL 2306	PHIL 1304
MUSI 1168	MUSI 1103	PHYS 1401	PHYS 1441
MUSI 1181	MUSI 1180	PHYS 1402	PHYS 1442
MUSI 1182	MUSI 1181	PHYS 1405	PHYS 1401
MUSI 1183	MUSI 1105	PHYS 1407	PHYS 1402
MUSI 1188	MUSI 2104	PHYS 1411	PHYS 1445
MUSI 1301	MUSI 1301	PHYS 1412	PHYS 1446
MUSI 1306	MUSI 1300	PHYS 2425	PHYS 1443
MUSI 1308	MUSI 2302	PHYS 2426	PHYS 1444
MUSI 1311	MUSI 1325	PORT 1411	PORT 1441
MUSI 1312	MUSI 1326	PORT 1412	PORT 1442
MUSI 2116	MUSI 2185	PORT 2311	PORT 2313
MUSI 2117	MUSI 2186	PORT 2312	PORT 2314
MUSI 2181	MUSI 2180	PSYC 2301	PSYC 1315
MUSI 2182	MUSI 2181	RUSS 1411	RUSS 1441
MUSI 2311	MUSI 2325	RUSS 1412	RUSS 1442
MUSI 2312	MUSI 2326	RUSS 2311	RUSS 2313
PHED 1251	EXSA 1249	RUSS 2312	RUSS 2314
PHED 1252	EXSA 1259	SOCI 1301	SOCI 1311
PHIL 1301	PHIL 2300	SOCI 1306	SOCI 2312
PHIL 2303	PHIL 1301	SOCW 2361	SOCW 2311

SPAN 1411	SPAN 1441
SPAN 1412	SPAN 1442
SPAN 2311	SPAN 2313
SPAN 2312	SPAN 2314
SPCH 1144	COMS 0185
SPCH 1311	COMS 1301
SPCH 1321	COMS 2305
SPCH 1342	COMS 1302
SPCH 2333	COMS 2304

Course Abbreviations

Course Abbreviations

The following course prefixes correspond to the course listings in the academic departments, colleges and schools.

Abbreviation	Course
ACCT	Accounting
ADVT	Advertising
ANTH	Anthropology
ARCH	Architecture
ART	Art
AS	Aerospace Studies
BCMN	Broadcast Communication
BE	Biomedical Engineering
BEEP	Bilingual/ESL/Early Childhood Program
BIOL	Biology
BLAW	Business Law
BSTAT	Business Statistics
BUSA	Business Administration
CCJO	Criminology and Criminal Justice Online
CE	Civil Engineering
CHEM	Chemistry
CIRP	City and Regional Planning
CLAS	Classics
COLA	College of Liberal Arts
COMM	Communication
CRCJ	Criminology and Criminal Justice

CSE	Computer Science and Engineering
CTEC	Communications Technology
DNCA	Dance Activities
DNCE	Dance Theory
DG	Design Graphics
ECED	Early Childhood Education
ECON	Economics
EDML	Education Middle Level
EDTC	Educational Technology
EDUC	Education
EE	Electrical Engineering
ENGL	English
ENGR	Engineering
ESOL	English for Speakers of Other Languages
EXSA	Exercise and Sport Activities
FACC	Foundations of Accounting
FECO	Foundations of Economics

FFIN	Foundations of Business Finance
FINA	Finance
FLAW	Foundations of Business Law
FMAN	Foundations of Management
FMRK	Foundations of Marketing
FREN	French
GEOG	Geography
GEOL	Geology
GERM	German
GREK	Greek
HEED	Health
HIST	History
HONR	Honors
HUMA	Humanities
IE	Industrial Engineering
INSU	Insurance
INSY	Information Systems
INTD	Interior Design

INTS	Interdisciplinary Studies
JOUR	Journalism
KINE	Kinesiology
LATN	Latin
LING	Linguistics
LIST	Literacy Studies
MAE	Mechanical and Aerospace Engineering
MANA	Management
MARK	Marketing
MAS	Mexican American Studies
MATH	Mathematics
MILS	Military Science
MODL	Modern Languages
MUSI	Music
NURS	Nursing
OPMA	Operations Management
PHIL	Philosophy
PHYS	Physics
POLS	Political Science
PORT	Portuguese
PREL	Public Relations
PSYC	Psychology
REAE	Real Estate
RUSS	Russian
SCIE	Science
SOCI	Sociology
SOCW	Social Work
SPAN	Spanish
THEA	Theatre Arts
URPA	Urban and Public Affairs
WOMS	Women's Studies

Degree Program Requirements

Undergraduate Admission to a Degree Program

Admission to the University's degree programs is determined by application to the academic unit offering the degree.

Degree Plan

Students are responsible for requesting the preparation of a degree plan through their major department advisor during the semester following admission to a degree program. No deviation from a degree plan will be allowed except with the written approval of the department advisor, the chair of the major department and the academic dean. A student should file an application for graduation in the Office of Admissions, Records and Registration before the start of the student's final semester of work for a degree. After the student makes application for graduation, the registrar's representative will determine whether the graduation requirements have been met.

Minor Field of Study

A minor requires at least 18 semester hours in a given program, including six hours of advanced work. Specific course sequences for a minor are determined by the program offering the minor. Since some undergraduate degree programs do not offer minors, students should consult an advisor in their program of study.

In a case where the student wishes to pursue a minor comprised of courses within the same college as that which offers his/her major program of study, the student and his/her advisor will propose a program of study/list courses for approval by the dean of the college.

In a case where the student wishes to pursue a minor which includes one or more courses offered by a different college from that which offers his/her major program of study, the student and his/her advisor will propose a program of study/list of courses for approval by both (a) the dean of the college which offers his/her major, and (b) the dean of the college which offers the minor courses.

In either case, the approved minor program of study will be forwarded to the Office of Admissions, Records and Registration for verification and notation on the student's transcript.

The Core Curriculum

he University of Texas at Arlington is committed to ensuring that students take a common core of courses during their tenure at the institution. These courses are central to any career a student may choose, since they provide basic skills, perspectives and knowledge. The remainder of a student's course work will focus on the methods, skills and knowledge appropriate to whatever field or discipline he or she chooses. One virtue of a core curriculum, besides the obvious practical one of helping graduates adapt to a rapidly changing economy, is that it provides a common cultural experience. This shared experience facilitates both appreciation and criticism of the values, norms and institutions of one's culture.

The specific aims of UT Arlington's core curriculum are to ensure that each graduate: (1) be able to read and write clear, correct English; (2) understand the features and exemplars of the major literary forms; (3) understand the basic principles of critical thinking, argument and mathematical relationships (as well as the relations among these); (4) understand and appreciate the scientific method of problem analysis (as well as the principal results in various fields); (5) comprehend the nature of historical research and the relevance of historical events to contemporary

situations; (6) be able to analyze political and economic phenomena, including the functioning of and relations among national, state and local governments; (7) understand various forms of art and aesthetic principles; and (8) have a practical and theoretical knowledge of various human cultures, past and present.

Core Complete: Students who transfer from a Texas public community college or public university and are certified as core complete shall have satisfied the core requirements of UT Arlington. Academic departments may, in some instances, require specific courses outside their major as prerequisites for major course work. (See "Credit Evaluation" and "Transfer of Lower Division Course Credit" under Undergraduate Admission section, p.15-16.)

Transcript Codes: The Transcript Codes identify specific core requirements on a student's transcript. For further information on core transferability, consult with an academic advisor, or refer to the Texas Administrative Code.

Field of Study: Students who complete an approved field of study curriculum in whole or in part will receive academic credit for the equivalent courses within their selected field of study at UT Arlington. View the field of study curriculums approved by the Texas Higher Education Coordinating Board at www.thecb.state.tx.us.

Note: Consult a specific academic department in this catalog regarding further requirements for a degree in your area of interest.

Core Curriculum for a Bachelor's Degree

The University requires the following courses for each degree:

English Composition

Six hours (1301 and 1302 or suitable substitutes).

Literature

Three hours of English or modern language literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing.

U.S. History

Six hours of American history or three hours of American and three hours of Texas history. (This requirement is mandated by state law and cannot be waived.)

U.S. Political Science

Six hours covering U.S. and Texas constitutions. (This requirement is mandated by state law and cannot be waived.)

Mathematics

Six hours (MATH 1301 or higher. Credit will not be given for both MATH 1301 and 1302.)

Natural Science

Eight hours in a single lab science (biology, chemistry, geology or physics).

Social/Cultural Studies

Three hours*.

Fine Arts

Three hours from art, dance, music, architecture or theatre arts.

**The Social and Cultural Studies requirement will be satisfied by designated courses which have been approved by the Undergraduate Assembly. For a list of approved courses, contact the University Advising Center (817-272-3140; http://www.uta.edu/uac).*

International students whose secondary education was taught in their native tongue (other than English) may meet the modern language requirement for the Bachelor of Arts degree by successfully completing six additional hours in English beyond the general requirements for a bachelor's degree. The eight additional hours needed to fulfill the total degree requirements must be approved by the student's major department and must be included in the degree plan. The major department has the right to stipulate the modern language permitted for the bachelor's degree, provided the language is taught at UT Arlington.

Competence in Computer Use

Graduating students should be proficient in the use of computers. Proficiency is understood as the ability to use word-processing, database/spreadsheet and representative software of one's major discipline. Each student should be able to tap the communications, analytical and information-retrieval potential of computers to solve research problems and be able to evaluate the results. Students should consult their departmental, school or college advisors to determine the mechanisms by which they can demonstrate proficiency. An examination or completion of a department- or college-designated course may be required.

Competence in Communication

Students should have proficiency in communication skills including interaction in classroom settings to meet the needs of course work and the use of acceptable grammar and pronunciation in formal presentations. Students should consult their individual department, school or college advisors to determine the mechanisms by which they can demonstrate this competency. A proficiency examination or completion of a department- or college-designated course may be required.

Tuition for Excessive Undergraduate Hours

Pursuant to state law, students who first enrolled in any college or university in Fall 1999 or a later semester will be required to pay nonresident tuition rates if attempted undergraduate credit hours exceed a designated limit as explained below. Students who first entered a college or university in Fall semester 1999 through Summer semester 2006 are required to pay nonresident tuition rates when the credit hours attempted at a publicly-funded Texas college or university exceed by 45 or more the hours required for the student's declared baccalaureate degree. Students who first entered a college or university in Fall semester 2006 and thereafter are required to pay nonresident tuition rates when the credit hours attempted at a

publicly-funded Texas college or university exceed by 30 or more the hours required for the student's declared baccalaureate degree. This requirement applies only to the first baccalaureate degree earned; students already holding one baccalaureate degree are exempt when enrolled in a second baccalaureate degree program.

This requirement applies to **all credit hours attempted at any publicly-funded Texas institution, including courses with a grade of D, F, or W** as well as courses serving as a grade replacement and courses that have been grade replaced or grade excluded. Credit hours earned at a private or an out-of-state institution are not counted toward the limit. Some other exceptions may apply.

For more information about this state law, see www.statutes.legis.state.tx.us (Texas Education Code, secs. 54.014 and 61.0595)

Residency Requirements

The degree requirements for graduation in specific divisions of the University are explained at the beginning of each division in the catalog. In addition:

- Each candidate for a degree must complete and receive credit in residence* for:
    a. 25 percent of the semester credit hours required for a degree (some colleges or schools may have additional residency requirements)
    b. at least 18 semester hours of advanced (3000/4000 level) course work, to include 12 hours of advanced courses in the major subject
- Successful completion of a course of study prescribed by the major department, including a minimum of 36 advanced hours, is required for a degree at UT Arlington. Courses numbered with a first digit of 3 or 4 are classified as advanced courses.
- A minimum overall grade point average of 2.0 (C average) is required. In addition, a minimum grade point average of 2.0 in the major is required. Individual units will determine the specific courses to be included in the calculation of the GPA in the major, and may have higher overall GPA requirements for graduation than a 2.0. (The College of Business requires a 2.0 overall grade-point average, 2.0 on all course work taken in the college, and 2.0 within the major and concentration area for those majors having a concentration.)
- No more than 30 of the semester hours required for any degree may be completed by correspondence and/or extension, but may include approved online course work.
- Only the first four semester hours of exercise and sport activity (EXSA) and dance activity (DNCA) courses may be counted toward graduation. Additional activity courses taken will not be calculated in the student's grade point average. Each college, school or department will determine if activity courses satisfy degree requirements. Consult department academic advisor.
- Graduate courses (numbered 5000 and above) cannot be used to fulfill undergraduate degree requirements except in programs approved by the Undergraduate Assembly.
- To qualify for a second bachelor's degree, a student must complete all the degree requirements as stated in the catalog for that degree and must complete no fewer than 30 semester hours beyond those of the bachelor's degree program requiring the

greater number of hours. The additional hours must be taken in residence at UT Arlington.

**The term "in residence" is defined as in residence at the (U.T. System) component which ultimately grants the degree. Residence credit does not include courses taken by extension or correspondence or exam, but may include approved online course work.*

75 Hours to Undergraduate Major Policy

This policy is included in the Academic Regulations section of this catalog.

Financial Aid

Financial Aid

www.uta.edu/fao

Many sources of student financial aid exist at The University of Texas at Arlington. Any interested student should apply for assistance each year, as eligibility can vary from one year to the next. Financial aid is generally limited to U.S. citizens or permanent residents. A minimum of half-time enrollment (6 hours per term for undergraduates and 5 hours per term for graduates) with the intent of obtaining a degree or certificate and the maintenance of satisfactory academic progress are required to participate in most aid programs. 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 for financial aid.

Unless otherwise noted in this section of the Catalog, financial aid is available through the Office of Financial Aid in Room 252, Davis Hall, 817-272-3561. Information is also available on the financial aid Web site: www.uta.edu/fao.

Scholarships

The University of Texas at Arlington provides a variety of scholarship programs for students who have demonstrated exceptional academic achievement. In addition to academic considerations, scholarships are awarded in compliance with the stipulated selection criteria of any given scholarship and include such factors as leadership, community service, financial need, and course of study. These funds have been contributed by individual donors, UT Arlington alumni, corporations, government agencies and others to recognize and reward academic excellence. Detailed information about the scholarships offered through the University is contained in a brochure available in the Office of Financial Aid and on the financial aid Web site. Additional information regarding private scholarships is also available.

Federal and State Programs

The University participates in most of the federal student financial aid programs offered through the U.S. Department of Education. In addition, several state and institutional programs are available for students with exceptional financial need. Among the programs in which the University participates are Federal Pell Grants, Federal Work-Study, Federal Supplemental Educational Opportunity Grants, Federal Academic Competitiveness Grants, Federal SMART Grants, Federal TEACH Grants, Federal Perkins Loan, Federal Direct

Stafford Loan, Federal Direct PLUS, Texas Public Education Grants and TEXAS Grants. Information regarding eligibility and application procedures for these programs is available from the Office of Financial Aid. The Texas Education Coordinating Board administers various tuition assistance programs including programs for teachers and vocational nursing students.

Aid applicants may check the status of their financial aid applications on the Web through their MyMav accounts.

Assistance Based on Need

Students wishing to participate in any of the need-based student 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 awarding process requires 2 – 3 weeks for completion once all required documents are received and is governed by the availability of funds. The FAFSA can be obtained online at http://www.fafsa.ed.gov.

Loans Not Based on Financial Need

Federal PLUS (Parent Loan for Undergraduate Students) loans are available to parents to finance their dependents' educational costs. Information and application process are available on the Web site, www.uta.edu/fao. Although it is possible to apply for a loan through the Direct PLUS program without applying for need-based financial aid, the student and parent should consider the PLUS as the last alternative for financing an education since its terms are not as attractive as the other forms of financial aid.

Students who are determined to be ineligible for federally subsidized loans may apply for unsubsidized Federal Direct Stafford Loans. Application is made by completing a Free Application for Federal Student Aid (FAFSA) and a promissory note. Further information is available from the Office of Financial Aid.

Financial Counseling

The Financial Aid Office provides financial or budgetary counseling for any and all students whether or not they qualify for other types of financial assistance. Please call the Office of Financial Aid at 817-272-3561 for an appointment.

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. Information may be obtained from the Office of Financial Aid or your state educational agency.

International Student Assistance

Students who are not eligible for federal financial assistance may apply for a Texas Public Education Grant (TPEG). Funding for the program is limited; applications for this grant for each academic year are available in the Office of Financial Aid during the month of June. The deadline for submission of completed applications is July 1. Selection is based on need and academic performance. Recipients must be maintaining satisfactory academic progress and must pay out-of-state tuition.

Graduate Admission and Programs

Graduate Admission and Programs

333 Davis Hall · Box 19167 · 817-272-2688 · grad.uta.edu · graduate.school@uta.edu

Graduate Offerings

The University of Texas at Arlington offers approximately 100 different master's and doctoral degrees across a wide spectrum of academic and professional programs. In addition to typical classroom instruction suited to either full or part-time students, a number of degrees can be pursued through distance educational formats. Numerous certificate programs not requiring admission in a particular master's or doctoral degree program are also available for persons seeking to enhance their professional skills and careers. Anyone considering graduate study at The University of Texas at Arlington is encouraged to go to the Graduate School Web site, grad.uta.edu for detailed information about educational opportunities, application materials and contact information. For those students who are particularly interested in distance education opportunities, the Distance Education Web site at distance.uta.edu will provide valuable guidance. Graduate School staff are also available for assistance and may be contacted by calling 817-272-2688 or by e-mail, addressed to graduate.school@uta.edu.

Master's Programs

- Accounting
- Aerospace Engineering
- Anthropology
- Architecture
- Art
- Biology
- Biomedical Engineering
- Business Administration
- Chemistry
- City and Regional Planning
- Civil Engineering
- Cohort Masters of Business Administration
- Communication
- Computer Science
- Computer Science and Engineering
- Criminal Justice
- Criminology and Criminal Justice
- Economics
- Education Administration
- Education Curriculum and Instruction
- Education Leadership and Policy Studies
- Education Teaching
- Electrical Engineering
- Engineering Management
- Engineering Mechanics
- English
- Environmental and Earth Science
- Environmental Design
- Environmental Science and Engineering
- Executive Masters of Business Administration
- Exercise Physiology
- Foreign Language
- French
- Geology
- German
- Government
- Health Care Administration
- History
- Humanities
- Humanities MAT
- Human Resource Management
- Industrial Engineering
- Information Systems

- Interdisciplinary Science
- Interdisciplinary Studies
- International MBA
- International Business Administration
- Landscape Architecture
- Linguistics
- Logistics
- Management of Technology
- Marketing Research
- Master of Arts in Foreign Language
- Materials Science
- Materials Science and Engineering
- Math Teaching
- Mathematics – General Mathematics
- Mathematics – General Statistics
- Mechanical Engineering
- Modern Languages
- Music
- Nursing
- Nursing Administration
- Nursing Administration – Joint with UNT
- Nursing Practitioner
- Nursing – Adult Nurse Practitioner
- Nursing – Acute Care Nurse Practitioner
- Nursing – Adult Psychiatric-Mental Health Nurse Practitioner
- Nursing – Emergency Nurse Practitioner
- Nursing – Family Nurse Practitioner
- Nursing – Family Psychiatric-Mental Health Nurse Practitioner
- Nursing – Gerontological Nurse Practitioner
- Nursing – Pediatric Nurse Practitioner
- Nursing – Pediatric Acute Care Nursing Practitioner
- Online Computer Science
- Online Computer Science & Engineering
- Online Electrical Engineering
- Online Business Administration
- Personnel and Human Resource Management
- Physics
- Political Science
- Professional Accounting
- Psychology
- Public Administration
- Public Administration – Online
- Quantitative Finance
- Radiological Physics
- Real Estate
- Social Work
- Sociology
- Software Engineering
- Spanish
- Systems Engineering
- Taxation
- Teaching English to Speakers of Other Languages (TESOL)
- Urban Affairs

Doctoral Programs

- Administration Business
- Administration
- Administration Social Work
- Administration Urban Affairs
- Aerospace Engineering
- Applied Chemistry
- Applied Physics
- Biomedical Engineering
- BSN to PhD in Nursing – Administration
- BSN to PhD in Nursing – Clinical
- Business Administration
- Business Administration – concentration in Accounting
- Business Administration – concentration in Economics
- Business Administration – concentration in Finance
- Business Administration – concentration in Information Systems
- Business Administration – concentration in Management
- Business Administration – concentration in Marketing
- Business Administration – concentration in Taxation
- Chemistry

- Civil Engineering
- Computer Science
- Computer Science – BS to PhD
- Computer Science and Engineering
- Computer Science and Engineering – BS to PhD
- Educational Leadership
- Educational Leadership and Policy Studies (K-16)
- Electrical Engineering
- Engineering Mechanics
- Engineering Interdisciplinary
- Engineering Undifferentiated
- English
- Environmental and Earth Science
- Environmental Science and Engineering
- Experimental Psychology
- General Experimental Psychology
- Humanities
- Industrial Engineering
- Linguistics
- Literature
- Materials Science
- Materials Science and Engineering
- Mathematics – General Mathematics
- Mathematics – General Statistics
- Mathematics – BS to PhD, General Mathematics
- Mathematics BS to PhD, General Statistics
- Math Science – Biology
- Math Science – Chemistry
- Math Science – Computer Science
- Math Science – Geology
- Math Science – Information Systems
- Math Science – Mathematics
- Math Science – Physics
- Math Science – Psychology
- Mathematical Science
- Mechanical Engineering
- Nursing
- Public and Urban Administration
- Quantitative Biology
- Rhetoric
- Social Work
- Transatlantic History
- Urban Planning and Public Policy

Certificates

The University of Texas at Arlington offers the following graduate certificates through the Graduate School:

- Acute Care Pediatric Nurse Practitioner
- Acute Care Nurse Practitioner
- Adult Nurse Practitioner
- Adult Psychiatric Mental Health Nurse Practitioner
- Advanced Nursing Educator Role
- Archival Administration
- Bilingual
- Budgeting
- Development Review
- Graduate Advanced Studies
- Geographical Information Systems
- Education in Curriculum and Instruction – English Second Language
- Education in Curriculum and Instruction – Master Reading Teacher
- Education in Curriculum and Instruction – Master Technology Teacher
- Education in Curriculum and Instruction – Reading Specialist
- Education in Teaching – All Level
- Education in Teaching – Early Childhood
- Education in Teaching – Middle Level
- Education in Teaching – Secondary Level
- Environmental & Earth Science
- Emergency Nurse Practitioner
- Educational Leadership & Policy Studies – Principal
- Educational Leadership & Policy Studies – Superintendent
- Electronic Packaging
- Family Nurse Practitioner
- Family Psychiatric Mental Health Nurse Practitioner
- Gifted and Talented
- Gerontological Nurse Practitioner
- GIS In Spatial Information Systems

- Hazardous Material & Waste Management
- Law & Public Policy
- Nursing Education
- Nurse Educator Role
- Palliative Care Practitioner
- Pediatric Nurse Practitioner
- Petroleum Geoscience
- Performance
- Real Estate Development
- Registered Nurse First Assistant
- Spanish
- Telecommunications
- TESOL
- Taxation
- Urban Journalism
- Urban Non-Profit Management

Admission to the Graduate School to Pursue a Master's or Doctoral Degree

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

The admission policies of the Graduate School and the academic departments of The University of Texas at Arlington comply with standards specified by *Texas Education Code,* Sec. 51.842. Specifically, performance on a standardized test is not a the sole criterion for consideration of an applicant for admission or competitive scholarships or as quality of an applicant's academic preparation, 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 an accredited U.S. institution.

Basic Admission Requirements

The Graduate School 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 an 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(s) in which a degree is sought. Many departments have additional requirements that concern such things as a person's work or other experience and skills. Some programs require a criminal background check as a condition of admission, program completion or licensure expectations concerning acceptable qualifications, applicants should examine departmental requirements with care.

Application

Application for admission must be made on official application forms. Students may complete our application online, download an application package and apply by submitting a paper application, or obtain an application package by contacting the Graduate School office, Room 333, Davis Hall. Online access to application materials

and other helpful information for applicants can be found at the Web site's Virtual Graduate Admissions Counselor page.

Application Evaluation Charge

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 $30 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 $60 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 $60 application evaluation charge.

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 by advanced 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, advanced 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 hrs of study as calculated in the Graduate School for admission purposes; b. all work completed at UT Arlington to date.

Students who qualify for advanced admission will be admitted directly to the 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 Advanced Admission of Outstanding Undergraduates.

Waiver of the Graduate Record Examination for Outstanding UT Arlington Undergraduates

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 the Graduate School; (b) in all undergraduate coursework completed at UT Arlington.
3. 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. Not all graduate programs participate in the GRE waiver program.

Graduate School Web Site: grad.uta.edu

Graduation

Graduation Procedures

Recognition ceremonies are held three times yearly at the end of the fall, spring and summer semesters. Candidates are urged to attend the recognition ceremony sponsored by their college or school; however, attendance at a ceremony is not mandatory for graduation. A candidate for undergraduate graduation must apply for their bachelor's degree by filing an application with the Office of Admissions, Records and Registration by the graduation application deadline for the semester they plan to graduate. Students who complete degree requirements at another institution must also file an application for graduation by the graduation application deadline for the semester they plan to graduate. An official transcript from the candidate's other institution listing the courses completed in the graduation semester must be received by the Office of Admissions, Records and Registration by the transfer transcript deadline for graduating seniors. Failing to meet this transfer transcript deadline may require a student to wait until the following semester for their degree to be awarded and posted to their transcript. A graduation application fee is charged to a student's account when they submit their application for graduation.

Graduation With Latin Honors

Bachelor's degree candidates who have attempted and completed at least 45 semester hours in residence at The University of Texas at Arlington, including all hours completed in the first and final semesters that contain the last 45 hours, will receive:

- *Cum Laude* Latin Honors, if their overall GPA is 3.500 – 3.699 OR (their overall GPA is 3.300 – 3.499 and the GPA for their last 45 semester hours in residence is 3.500 – 3.699).
- *Magna Cum Laude* Latin Honors, if their overall GPA is 3.700 – 3.899 OR (their overall GPA is 3.500 – 3.699

and the GPA for their last 45 semester hours in residence is 3.700 – 3.899).
- *Summa Cum Laude* Latin Honors, if their overall GPA is 3.900 – 4.000 OR (their overall GPA is 3.700 – 4.000 and the GPA for their last 45 semester hours in residence is 3.900 – 4.000).

Graduation Under a Particular Catalog

Students may obtain a degree or certification according to the course requirements for a degree or certification stated in the catalog under which they first entered the University, provided the courses are being offered. Or, students may choose to graduate under the course requirements in effect during any subsequent year in which they are registered, provided the courses are offered. A student entering for the first time in the summer session may obtain a degree or certification according to the course requirements of the catalog of the previous long session or the next long session. The above provisions, however, are subject to the restriction that all requirements for a degree or certification must be completed in eight years from the date of the catalog chosen and that the courses are still offered.

A student may graduate under the current catalog. The above provisions are also subject to the University's authority to modify degree, certification or graduation requirements as necessary.

Policy on Posthumous Degrees

A posthumous degree will be awarded if the deceased was enrolled in his or her final semester in courses that would have completed all work required for the degree and meets the minimum GPA requirements for graduation. If an Application for Graduation is not already on file, one may be completed by the deceased's academic advisor or family member. For further information, individuals may contact the Office of Admissions, Records and Registration or the appropriate dean's office.

Registration and Enrollment

Office of Admissions, Records and Registration

Office of Admissions, Records and Registration · 129 Davis Hall · Box 19088 · 817-272-3372 or 817-272-6287

Requirements Prior to Registration

Advising

Students new to UT Arlington, many continuing students and readmitted former students must be advised by their major department academic advisor prior to registration each semester. Undeclared students should meet with their academic advisor in the University Advising Center. Students can check to see if they need to be advised on their Student Center using MyMav**,** the computerized, high-security student records system used by UT Arlington. If advising is required, a service indicator (enrollment hold) will

appear on the student's record. The service indicator must be released by the academic advisor before the student can register.

Typically, the advising period for the Spring term opens in October, and for the Summer and Fall terms in March.

Meeting with an academic advisor is strongly recommended even if the student is exempted from advising.

Texas Success Initiative (TSI)

Undergraduate students who have not fulfilled testing or exemption requirements of the Texas Success Initiative (TSI) will be barred from registering in **MyMav**. See requirements listed at Texas Success Initiative. For information regarding TSI status, contact the Office of Admissions, Records and Registration at 817-272-6287. Some students may be exempt from the TSI. For a list of exemptions, go to Texas Success Initiative. For TSI requirements, contact the University Advising Center at 817-272-3140 or uac.uta.edu. To register for the THEA test or the Accuplacer test, contact Testing Services at 817-272-2362 or visit their Web site at www.uta.edu/assessment.

What to Know Before Registering

Registrant Responsibilities

- The student must know and abide by all University policies and deadlines.
- UT Arlington's **Student Responsibility Statement** includes specific information on registrant responsibilities.
- Students must drop courses prior to the first class day for a given term to avoid financial responsibility.
- A student's registration is not automatically cancelled for non-attendance. A student should either pay tuition and fees in full by the designated deadline or take the appropriate steps to withdraw.
- Students must apply for financial aid using the Free Application for Federal Student Aid (FAFSA).

Terms and Sessions

There are three terms and seven regularly scheduled sessions in the academic calendar year at UT Arlington. The three terms are Fall, Spring and Summer.

A session called Dynamic Dated Session is associated with all three terms. This session has classes scheduled outside of the normally scheduled time periods and is used for special programs known as Academic Partnership programs. Only students associated with these programs can enroll in the Dynamic Dated Sessions.

Fall Term

The Fall term has one session, called the regular session. It typically begins the fourth Monday in August and ends the second week in December.

Commencement exercises for the Fall term are typically held the second week of December, following the conclusion of the term.

Spring Term

The Spring term has two sessions. The first session is Intersession Winter (ISW). It begins the week after the Fall term ends and concludes the week before the start of the Spring term regular session.

The Spring term regular session typically begins the Tuesday after the Martin Luther King Memorial Holiday and ends the second week in May.

Commencement exercises for the Spring term sessions are typically held the second week of May, following the conclusion of the Spring regular session.

Summer Term

The Summer term has four sessions. The first session is Intersession Summer (ISS). It typically begins the week after the Spring regular session concludes and ends the Friday before the Memorial Day Holiday weekend.

The second session of the Summer term is the First 5-Week Session (5W1). It typically begins the Tuesday following the Memorial Day Holiday weekend and ends before the Fourth of July.

The third session of the Summer term is the Summer 11-Week Session (11W). It begins concurrently with the First 5-Week Session and typically ends the second week of August.

The fourth session of the Summer term is the Second 5-Week Session (5W2). It typically begins after the Fourth of July and ends concurrently with the Summer 11-Week Session in the second week of August.

Commencement exercises for all Summer term sessions are typically held the second week of August, following the conclusion of the Summer term.

Full-Time and Part-Time

All full-time status calculations are done at the term level.

Credit Hours Required for Half-Time or Full-Time Status	Undergraduate		Graduate	
	Half-Time	Full-Time	Half-Time	Full-Time
Long Semester	6	12	5	9
A 5-Week Session	3	6	3	6
11-Week Session	5	9	5	9
Thesis/Dissertation only (any session)			3	6

Note: For all students, 9 credit hours equal full-time status for any summer session combination.

Class Meeting Times

On-campus class meeting times are typically scheduled Monday through Friday, 8 a.m. to 10 p.m. Class meeting times can vary; consult the **Schedule of Classes** for specific days and times.

Course ID System

Courses at UT Arlington are designated by a combination of letters and numbers. The letters indicate the department, or the area within a department, that offers the course. A list of these code letters is on the Course Abbreviations web page. The numbers

furnish information such as level, credit and hours of theory or practice.

Example: CHEM 1301 (3-0) 3 hours credit

- "CHEM" indicates that the course is offered by the Chemistry Department.
- The first digit (1 in the example above) denotes the year in which the course is usually taken: 1 and 2 indicate lower division (freshman and sophomore) courses; 3 and 4 indicate upper division (junior and senior) courses; and 5 and 6 indicate graduate courses.
- The second digit (3) denotes the semester hours credit the student is attempting to earn by taking the course.
- The third and fourth digits (0 and 1) distinguish the individual course. Course numbers 90 through 99 indicate individual or small group instruction.
- The first figure in parentheses (3) indicates the clock hours per week in the long (spring and fall) terms devoted to theory. Theory includes recitations and lectures.
- The second figure in parentheses (0) indicates the clock hours per week in the long (spring and fall) terms devoted to practice. Practice includes work done in the laboratory, shop, drawing room or field.
- The final figure is the credit value of the course. The unit of credit is the "semester credit hour," which involves one hour of theory and/or from two to four hours of practice per week for a 16-week term.

Enrollment

To attend UT Arlington in any given semester, a student must accept financial responsibility for any enrollment transactions, register and pay tuition and fees. Registration at UT Arlington is done online using MyMav. The current term's Registration Timetable gives the exact dates and times for registration.
The Schedule of Classes is updated for the Spring term in mid-October, and in mid-March for the Summer and Fall terms. A commonly-asked question set about registration is available on MyMav, along with the Undergraduate Catalog. Students log in to MyMav to register.

For payment of tuition and fees information, refer to Tuition, Fees, and Charges section of this catalog for registration billing and payment.

Late Registration

Late registration is held each term for students who are unable to register during the regular registration period. Late registration at UT Arlington is done online using MyMav. Late registration fees are assessed for enrollment transactions made during the late registration period.

Schedule Changes

Students can elect to make changes to their course schedules on MyMav.

- **Adding Classes:** Students can add classes through self-service in MyMav or in person in the major academic department (or the University Advising Center for undeclared students) from the beginning of the registration period through the late registration period. A student will not be permitted to add a course for credit or make a section change

after the last day of late registration.

- **Dropping Classes:** Students can drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. In a long (fall or spring) term, this point is through the tenth week of classes.
- No grade or withdrawal is posted if a student drops a course before 5:00 pm Central Standard Time on the Census Date of that term.
- For additional information on withdrawing from classes**,** see the Withdrawals section below.
- Although unusual, a section may be cancelled due to low enrollment or staffing considerations. The department that cancels the class should notify any students already enrolled and assist with alternate arrangements. At the beginning of the semester, students should always check for changes regarding class meeting times or classroom locations.

Change of Major Program of Study

Undergraduate students who wish to change their major program of study must consult with the proposed major department to process the program change.

An academic unit may require students to change their major program of study if the students do not meet the academic standards or the professional conduct standards of the unit. For information concerning specific standards in a program of study, students should contact the office of the appropriate academic dean.

Withdrawals

A student may withdraw from all courses for the current session/term from the first class day until a point two-thirds of the way through the session or term by contacting their major academic department (or the University Advising Center for undeclared students) for appropriate advisement and removal from the coursework. A student who elects to withdraw on the first day of classes or thereafter will incur financial responsibility to the University as regulated by Student Financial Services.

A student may withdraw from the University with grades of "W" until the two-thirds point in the semester/term. A student may be removed from a course after that point only upon approval of the appropriate official.

Students who withdraw from the University to perform active military service (not including Texas National Guard training exercises) will not have to reapply for admission, but will be readmitted upon a request made to the Office of Admissions, Records and Registration within one year of being released from active military service.

Students who withdraw as a result of military service may choose to receive a full refund of tuition and fees, an incomplete (if eligible) or final grade at institution discretion. (Texas Education Code, Section 54.006.)

Special Enrollment Programs

Auditing

Arrangements to audit an undergraduate course may be made during the late registration period only. The required form, obtained from the Office of Admissions, Records and Registration Web site, must be completed and taken to the instructor for approval during the late registration period only. After obtaining the instructor's approval, the applicant pays a fee at Bursar Services of $20 per course if enrolled for course work at UT Arlington or $100 per course if not enrolled for course work in residence at UT Arlington. Persons 65 years of age or older may audit courses without paying an audit fee. The auditor has the privilege of hearing and observing only; no University credit is granted for auditing. An academic department may place restrictions on the privilege of auditing or may deny permission to audit certain courses. Activity classes, repeatable courses, labs, etc., are generally not auditable.

Cooperative Programs Between University of Texas System Components

A student concurrently enrolling at two or more University of Texas System components may register and pay tuition and fees for all courses through the student's home institution. Detailed procedures may be obtained from the registrar or records office of the student's home institution. The concurrent enrollment agreement and waiver of specified fees applies only to students following the concurrent enrollment procedures specified by the home institution.

The charges for the following will be assessed and collected at the home institution for the other institution(s):

- Tuition at an appropriate rate
- Applicable laboratory fees and special course charges
- General Use Fee at the appropriate rate
- Any other fees 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 fees or other matters related to concurrent enrollment procedures to the registrar or records office 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, schedule changes may be done through the home institution's records office. After the Census Date, drops must be done at the host institution.

All paperwork must be turned in two weeks prior to the host institution's first class day.

Other Public Institutions of Higher Education

When students register at more than one public institution of higher education in Texas, they shall pay the full tuition charges to the first institution at which they are registered. A student who is first registered at another institution must present a copy of the fee receipt from that institution to Bursar Services when registering at UT Arlington. Any reduction in tuition per the

following guidelines will be refunded to the student approximately one month after the beginning of the term.

- If the minimum tuition at the first institution is the same as or greater than the UT Arlington minimum, the amount charged for tuition will be the UT Arlington hourly rate.
- If the minimum tuition at the first institution is lower than the UT Arlington minimum, the amount charged for tuition will include the difference in the minimum charges. In no case will the amount charged be less than the UT Arlington hourly rate.
- All other applicable fees will be charged.

Ineligibility to Register

Students who are no longer eligible for enrollment at the start of the term will have their registration canceled and their tuition and fees refunded.

Additionally, violation of several academic policies can result in a student's inability to register without permission or action. See the Academic Regulations section of the Undergraduate Catalog for specific limitations.

Student Housing, University Center and Dining Services

Student Housing, University Center and Dining Services

210 University Center · Box 19349 · 817-272-2791 www.uta.edu/housing

Advantages of Living on Campus

UT Arlington offers students a wide selection of affordable residence halls and apartments, sure to fit your needs and interests. On-campus facilities are just a short walk from classrooms, libraries, the University Center, dining facilities, and the Maverick Activities Center. Students living on campus have access to social and academic support communities, as well as many ways to actively get involved and engaged in student life. For more information and to apply online, visit www.uta.edu/housing.

Housing Choices

Residence Halls

Living in a residence hall is great place to start if you want to become involved on campus and meet other students. University housing facilities include five residence halls that can house a total of 1,680 students. Students can choose from both private and double-occupancy rooms and all residence halls rooms are air-conditioned and furnished. Residence hall rooms include free high-speed internet service, and cable or satellite TV services. Community amenities include computer labs, study and social lounges, kitchens, laundry facilities, gated parking and exterior card access systems. Professional live-in residence directors and on-site resident assistant staff provide a wide range of student services and activities. Meal plans are available for all students.

Residence Halls at a Glance

Residen	Commun	Be	Meal	Pet	Furnitu

ce Hall	ity Type	ds	Plans	s	re
Arlington Hall	Coed	596	Required	Fish only	Moveable
Brazos House	Coed	96	Available	Fish only	Moveable
KC Hall	Coed	419	Required	Fish only	Moveable
Lipscomb Hall North	Coed	185	Available	Fish only	Stationary
Lipscomb Hall South	All female	147	Available	Fish only	Moveable
Trinity House	Coed	237	Available	Fish only	Stationary

Visit www.uta.edu/housing to apply online or call 817-272-2791 for more information.

Centennial Court Apartments

Centennial Court is a unique living/learning on-campus community that offers an excellent combination of independent living and a vibrant collegiate atmosphere. Centennial Court offers many floor plans: unfurnished efficiency and two-bedroom/two bathroom apartments; and furnished two-bedroom/two bathroom and four-bedroom/two bathroom apartments. Each lease is on an individual basis, so residents are not responsible for their roommate's rental payments. Up-to-date amenities include a new fitness center, video gaming area, two laundry rooms, two pools and spas, two barbecue pavilions, and sand volleyball court. Each apartment is equipped with a high-speed internet connection in every bedroom as well as expanded basic cable service. We do have wireless connectivity in each clubhouse. Centennial Court provides on-site management, 24-hour maintenance, resident programming by a live-on Resident Assistant staff, all with the convenience of no commute to class. For information about academic or full-year contracts, financial aid deferment plan, and current rates call 817-436-4800 or visit www.centennialcourtUTA.com.

UT Arlington Apartments

Students may choose from 20 University-owned apartment communities with a wide selection of efficiency, one-and two-bedroom floor plans. All apartments are unfurnished and feature air-conditioning, kitchen appliances, carpeting, window blinds, and dead-bolt security locks. The University's newest apartment communities, constructed between 2002 and 2005, include free high-speed internet service, free cable or satellite TV service, and a full-size washer and dryer in each apartment.. Many communities include all utilities at no additional charge, or students may select a community where they pay their own

electric bill. On-site management staff, swimming pools, and laundry facilities are located on or near each apartment community.

Visit www.uta.edu/housing for more information or to apply online.

Resident Responsibilities

Resident students are cautioned to read carefully and to assume full responsibility for terms and conditions stated on application forms, information sheets and contracts. All residents are expected to be familiar with and abide by housing regulations, University rules and regulations, and the Rules and Regulations of the Board of Regents of The University of Texas System. These documents are available online. Students who violate these rules are subject to disciplinary action by the Office of Student Conduct Affairs.

E.H. Hereford University Center

University Center · Box 19349 · 817-272-2929 · www.uta.edu/ucenter

The E.H. Hereford University Center (U.C.) provides a place for students to gather between or after classes. Commonly referred to as the U.C., the University Center features facilities for relaxation, dining, recreation, and entertainment. The U.C. houses an art gallery, mail service, bowling alley, The Market convenience store, pool hall, lounges, meeting rooms, ballrooms, and dining areas. The Bowling and Billiards area offers a billiards room, 12-lane bowling center, big-screen TV area, foosball tables, and a snack shop. Lockers throughout the building are also available to students for a nominal fee.

The University Center is also home to over 275 student organizations, including Student Congress and the Graduate Student Senate. U.C. offices include Housing and University Center, Mav Express Office, Campus Activities and Community Programs, Student Governance and Organizations, Judicial Affairs and Legal Services, Multicultural Affairs, Center for Mexican American Studies (CMAS) and Student Employment Services.

University Dining Services

University Center · Box 19349 · 817-272-2919 · www.uta.edu/ucenter

www.campusdish.com/en-US/CSSW/UnivTexasArlington

Students may choose from a variety of foods when visiting the University Center. The Connection Cafe offers a RfoC (Real food on Campus) program for a first-class dining experience. Additionally, the Plaza features Pizza Hut Express, Chick-fil-A, Montague's, Panda Express, Starbucks Coffee, Mav Salads, and Freshen Smoothie. Bottled and fountain beverages are also available.

Java City, at the Library, offers a full-service coffee bar including pastries and scones. The coffee bar is open six days a week.

The catering division of University Dining Services offers banquets, receptions, beverage services, and special dining assistance as requested by groups utilizing the University Center.

Student Involvement and Policies

Department of Student Activities

Lower Level, University Center · Box 19348 · 817 – 272 – 2963 · www.uta.edu/stuact

The Department of Student Activities is the center for out-of-classroom activities at UT Arlington. Participating in co-curricular activities helps students gain valuable leadership skills that complement their academic work, enhance and enrich their collegiate experience. The Student Activities area includes EXCEL Campus Activities and UTA Volunteers.

EXCEL plans and implements campus-wide cultural, social, recreational and educational activities for students, faculty, staff and the community. Some of EXCEL's student-run committees include Campus Traditions, Entertainment and Arts, Special Events, Advertising and Membership.

UTA Volunteers is a student group that plans, promotes, and participates in volunteer and community service programs at UT Arlington and within the community.

Department of Greek Life and University Events

B170 Lower Level, University Center · Box 19348 · 817-272-2963· www.uta.edu/greek · www.uta.edu/universityevents

Greek Life

Greek Life at UT Arlington prepares young men and women to be contributing members of society. Fraternity and sorority members have social, leadership and service opportunities on and off campus geared toward the enhancement of their educational experience and contributions toward their personal development. Most importantly, Greek Life assists in the development of lifelong friendships. The Greek community is comprised of four governing bodies representing 30 fraternities and sororities, and two affiliated honorary organizations, Order of Omega and Gamma Sigma Alpha.

University Events

The Office of University Events plans, implements and evaluates events and activities for UT Arlington. These events are intended to focus on bringing well-known performers to campus. University Events is involved in the planning of UT Arlington's participation in Arlington and community parades, Welcome Days, Parent's Weekend, UT Arlington Homecoming and the MavsMeet after-party celebration. In addition, University Events helps to organize the Maverick Speakers Series and the University Concert Series.

Leadership Center

B140 Lower Level, University Center · Box 19348 · 817-272-9220 · www.utaleadershipcenter.com

The Leadership Center strives to develop innovative and collaborative

leaders who are relational in their approach, educate themselves for the purpose of being engaged, global citizens, and actively apply their leadership knowledge and skills to improve their local and world community. Some key components of the center are The Leadership Academy, The Mavs ACT Leadership Program, leadership retreats, courses and our newly acquired Leadership Studies minor.

Office of Student Governance and Organizations

B120, Lower Level, E. H. Hereford University Center • Box 19350 • 817-272-2293
• www.uta.edu/studentgovernance

Student Governance at UT Arlington consists of Student Congress, the Graduate Student Senate, Constituent Councils, UTA-HOSTS!, Freshman Leaders On Campus (FLOC), the Ambassador Program, Student Organizations and student representatives on various University committees. The varied activities of student organizations and student government provide a major means through which students may give expression to their talents, develop worthwhile skills, and improve their knowledge of the principles and processes by which democracy works. UT Arlington has more than 280 registered student organizations, which meet nearly every students need, including honorary, professional, international, cultural, political, religious and more.

Academic Student Organizations

The following academic student organizations are registered on the UT Arlington campus.

- Alpha Lambda Delta
- Alpha Psi Omega (Drama)
- Beta Alpha Psi (Accounting)
- Beta Beta Beta
- Beta Gamma Sigma (Business)
- Chemistry Graduate Student Association
- Chi Epsilon (Civil Engineering)
- Eta Kappa Nu (Electrical Engineering)
- Eta Sigma Phi (Classical Language)
- Gamma Sigma Alpha (Greek Honorary)
- Golden Key International Honor Society
- Honor Society of Nursing, Sigma Theta Tau International
- Kappa Delta Pi (International Education)
- Kappa Tau Alpha (Journalism)
- Lambda Alpha (Anthropology)
- Order of Omega (Greek)
- Phi Alpha Honor Society (Social Work)
- Phi Alpha Theta (History)
- Phi Sigma (Biology)
- Phi Sigma Tau (Philosophy)
- Phi Theta Kappa Alumni Association
- Pi Sigma Alpha (Political Science)
- Pi Tau Sigma (Mechanical Engineering)
- Psi Chi (Psychology)
- Sigma Gamma Epsilon (Geology)
- Sigma Tau Delta (English)
- Tau Beta Pi (Engineering)
- Upsilon Pi Epsilon (Computer Science)

Professional Student Organizations

The following professional student organizations are registered on the UT Arlington campus.

- Accounting Society
- Advertising League of Texas-Arlington (ALTA)
- Air and Waste Management Association
- Air Force ROTC - Air Force Flying Mavs
- Alpha Phi Sigma (Lambda Sigma Chi - Graduate Criminal Justice)
- Alpha Phi Sigma (Tau Chi Gamma - Undergrad Criminal Justice)
- American Institute of Aeronautics and Astronautics
- American Marketing Association
- American Society of Civil Engineers
- American Society of Landscape Architecture
- American Society of Materials
- American Society of Mechanical Engineers
- Anthropology Club
- Arlington Nursing Students' Association
- Art History Student Union
- Association for Computing Machinery
- Association for Women in Communication
- Association of Black Journalists
- Association of Information Technology Professionals
- Association of Latino Professionals in Finance and Accounting
- Biomedical Engineering Students Society
- Black Student Nurse Association
- Delta Sigma Pi (Business)
- English Student Association
- Finance Society
- Focus: The Photographic Fine Arts Association
- Forensic Investigation, Research and Education
- Geological Society
- Global Medical Training
- Hispanic Student Nurse Association
- Institute for Electrical and Electronic Engineers (IEEE)
- Institute of Industrial Engineers (IIE)
- Institute of Transportation Engineers
- Interdisciplinary Studies National Leadership Organization
- International Business Society
- International Interior Design Association
- Lambda Alpha Epsilon (Lambda Sigma Phi - Criminal Justice)
- Lingua: The Linguistics Circle at UTA
- Marketing Research Graduate Student Association
- Maverick Society of Athletic Training Students
- Medical and Dental Preparatory Association
- Moot Court Association
- Mu Sigma Microbiology Society
- National Association of Social Work (NASW)
- National Society of Black Engineers
- National Society of Collegiate Scholars
- National Society of Leadership and Success (Sigma Alpha Pi)
- North American Society for Trenchless Technology (NASTT)
- Optical Society of America (OSA)
- Organization of Visual Communicators
- Pre-Optometry Professional Society
- Pre-Pharmacy Association
- Psychology Society
- Public Relations Student Society of America
- Sigma Alpha Iota (Music)
- Society for Industrial and Applied Mathematics
- Society of Automotive Engineers
- Society of Hispanic Professional Engineers
- Society of Human Resource Management
- Society of Kinesiology Scholars
- Society of Physics Students

- Society of Professional Journalists
- Society of Women Engineers
- Sociology Student Association
- Student Art Association
- Student Chapter of The Mathematical Association of America
- Student National Medical Association
- Student National Medical Association
- Texas Society of Professional Engineers
- Transatlantic History Student Organization
- United States Institute for Theatre Technology (USITT)

UTA-HOSTS!

Lower Level, E.H. Hereford University Center • Box 19350 • 817-272-2293 •www.uta.edu/studentgovernance/hosts

UTA-HOSTS! (Helping Other Students To Succeed) is a peer mentor program sponsored by the Office of Student Governance and Organizations to help new students achieve success their first year on campus. The program matches first-year students with upper level students with a similar major. The upper level students, or mentors, will help students new to UT Arlington gain insight into campus opportunities and resources including important dates and deadlines, academic services and co-curricular activities. Participation in the program is voluntary and open to the student body.

Freshmen Leaders On Campus (FLOC)

Lower Level, E.H. Hereford University Center • Box 19350 • 817-272-2293 • www.uta.edu/studentgovernance/floc

Freshmen Leaders On Campus (FLOC) is a select organization created to promote freshmen involvement at UT Arlington. Students who were high school leaders have the opportunity to further develop their skills. Students, who are becoming interested in leadership, can become involved at UT Arlington as a member of FLOC.

FLOC provides an outstanding opportunity to meet many people, network with campus leaders, and collaborate with other UT Arlington organizations. Members learn to plan and coordinate campus and community events for their organization and for UT Arlington freshmen. FLOC provides a great way for freshmen to get involved, learn more about UT Arlington and have fun.

Intercollegiate Athletics

C.R. Gilstrap Athletic Center · Box 19079 · 817-272-2261 · www.uta.edu/athletics

All men's andwomen's intercollegiate teams representing UT Arlington are members of the Southland Conference. Other conference members are University of Central Arkansas, Lamar University, McNeese State University, Nicholls State University, University of Louisiana-Monroe, Northwestern State University, Sam Houston State University, Southeastern Louisiana University, Stephen F. Austin State University, Texas A&M University-Corpus Christi, The University of Texas at San Antonio and Texas State University. All UT Arlington athletic teams compete in the highest division (Division I) of the National Collegiate Athletic Association.

- Men's Athletics: Men's intercollegiate teams are fielded in baseball, basketball, cross country, golf, tennis, and indoor and outdoor track and field. Individuals interested in participating in the UT

Arlington athletic programs should contact the Athletic Office in the Gilstrap Center, 1309 W. Mitchell St., 817-272-2261.
- Women's Athletics: Women's intercollegiate teams are fielded in basketball, cross country, softball, tennis, indoor and outdoor track and field, and volleyball. Individuals wanting to participate should contact the Athletic Office in the Gilstrap Center, 1309 W. Mitchell St., 817-272-2261.

UT Arlington students with valid ID cards are admitted without charge to all regular season home athletic contests. All home men's and women's track and field meets are held at Maverick Stadium. Men's and women's home basketball games and women's home volleyball games are played in Texas Hall. Baseball games are played at Clay Gould Ballpark and softball games are played at Allan Saxe Field. Men's and women's tennis matches are played at the Tennis Center.

Department of Campus Recreation

500 W. Nedderman Drive • 817.272.3277 • www.uta.edu/campusrec

The Department of Campus Recreation at provides a diverse span of recreational and leisure opportunities for students, faculty and staff through six component including Informal Recreation, Intramural Sports, Fitness & Wellness, Sport Clubs, Aquatics and Spirit Groups.

The MAC–Maverick Activities Center is a state-of-the-art, $34.5 million recreation facility where students, faculty, staff, and alumni can meet, relax, workout, and continue to be engaged in UT Arlington's campus life. Some of the amenities include a 20,000 square foot weight and fitness room (80+ pieces of cardio equipment, 4 circuit training units & a free weight area), 5 indoor basketball courts, 8 volleyball courts, a climbing wall, game room and more.

Student Publications

University Center · Box 19038 · 817-272-3661 · www.uta.edu/studentpubs/

The Shorthorn is the official newspaper of the University community. It is published Tuesday through Friday during long semesters, except on holidays and during examination weeks, and once a week during the summer semester.

Funded by the student activity fee and advertising sales, the newspaper is distributed in all campus areas and many off-campus locations. It is also accessible online at www.theshorthorn.com. All students may apply for scholarships or paid positions through this publication.

Photo Identification Cards

Students are strongly urged to retain possession of their photo identification cards at all times. Misuse of University identification is an offense, which subjects students to discipline. Students lending their photo identification cards for fraudulent purposes, as well as those making use of them, will be disciplined. The student photo identification card is the property of the University, and a student may be asked to surrender the card for appropriate reasons.

Office of Student Conduct

All students are expected to obey the civil and penal statutes of the State of Texas and the United States, the Regents' Rules and Regulations of The University of Texas System, the rules and regulations of the University, and the orders or instructions issued by an administrative official of the University or The University of Texas System in the course of his/her duties and to observe standards of conduct that are compatible with the University's functions as an educational institution (Regents' Rules and Regulations, Rule 50101). Any student who engages in conduct that is prohibited by the Regents' Rules and Regulations or the rules of the University, or by federal, state, local law or regulation is subject to disciplinary action regardless of whether such conduct takes place on or off campus or whether civil or criminal penalties are also imposed for such conduct. Individuals who are not currently enrolled at a component institution of The University of Texas System remain subject to the disciplinary process for conduct that occurred during any period of enrollment and for statements, acts, or omissions related to application for enrollment or the award of a degree.

Unauthorized distribution of copyrighted material may subject students to disciplinary action and 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). The University's policies on copyrighted materials (ADM 5-200 and 5-300) can be found at http://www.uta.edu/policy/hop.

Information about the rules of conduct and due process procedures can be found on these Web sites:

- UT Arlington Handbook of Operations Procedures
- UT System Regents' Rules and Regulations

Hazing

The 74th Texas Legislature modified the law concerning hazing which became effective May 30, 1995. Under the law, individuals or organizations engaging in hazing could be subject to fines and charged with criminal offenses (Section 51.936, Texas Education Code).

According to the law, a person can commit a hazing offense not only by engaging in a hazing activity, but also by soliciting, directing, encouraging, aiding or attempting to aid another in hazing; intentionally, knowingly or recklessly allowing hazing to occur; or by failing to report first hand information that a hazing incident is planned or has occurred in writing to the Office of Student Conduct. The fact that a person consented to or acquiesced in a hazing activity is not a defense to prosecution for hazing under this law.

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 to the Office of Student Conduct; and immunizes that person from participation in any judicial proceeding resulting from that report. The penalty for failure to report is a fine of up to $2,000, up to 180 days in jail, or both. Penalties for other hazing offenses vary according to the severity of the injury, which results and range from $500 to $10,000 in fines and up to two years confinement.

The law defines hazing as 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 any organization whose members are or include students at an educational institution. Hazing includes but is not limited to:

- Any type of physical brutality, such as whipping, beating, striking, branding, electronic shocking, placing a harmful substance on the body, or similar activity;
- Any type of physical activity, such as sleep deprivation, exposure to the elements, confinement in small space, calisthenics, or other activity that subjects the student to an unreasonable risk or harm or that adversely affects the mental or physical health or safety of the student;
- Any activity involving consumption of food, liquid, alcoholic beverage, liquor, drug, or other substance which subjects the student to an unreasonable risk of harm or which adversely affects the mental or physical health of the student;
- Any activity that intimidates or threatens the student with ostracism, that subjects the student to extreme mental stress, shame, or humiliation, or 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 subsection;
- Any activity that induces, causes, or requires the students to perform a duty or tasks, which involved a violation of the Penal Code.

The University of Texas at Arlington regards hazing as a serious issue and is committed to the removal of any such practice. The Office of Student Conduct is prepared to assist any organization with a review of its activities to ensure they do not violate the hazing law.

Academic Integrity and Scholastic Dishonesty

Introduction

It is the policy of The University of Texas at Arlington to uphold and support standards of personal honesty and integrity for all students consistent with the goals of a community of scholars and students seeking knowledge and responsibility. Furthermore, it is the policy of the University to enforce these standards through fair and objective procedures governing instances of alleged dishonesty, cheating and other academic/non-academic misconduct. Students found responsible for dishonesty in their academic pursuits are subject to sanctions that may range from disciplinary probation, suspension and expulsion from the University.

What Is Academic Integrity?

Academic integrity is defined as being a firm adherence to a code or standard of values. It is a commitment on the part

- Honesty
- Truth
- Fairness
- Respect
- Responsibility

"From these values flow principles of behavior that enable academic communities to translate ideals into action" (The Center for Academic Integrity, 2004).

Unfortunately, when these ideals are not translated to each and every one in the academic community, academic dishonesty is inevitable.

Student Responsibility

You can assume responsibility in two ways. First, if you choose to take the risk associated with scholastic dishonesty and any other violation of the Code of Student Conduct and Discipline, you must assume responsibility for your behavior and accept the consequences. In an academic community, the standards for integrity are high. Second, if you are aware of scholastic dishonesty and any other conduct violations on the part of others, you have the responsibility to report it to the professor or the Office of Student Conduct. The decision to do so is another moral dilemma to be faced as you define who you are.

What Constitutes Scholastic Dishonesty?

Scholastic Dishonesty includes, but is not limited to, cheating, plagiarism, and collusion on an examination or an assignment being offered for credit. Each student is accountable for work submitted for credit, including group projects.

Cheating

- Copying another's test or assignment.
- Communication with another during an exam or assignment (i.e., written, oral or otherwise).
- Giving or seeking aid from another when not permitted by the instructor.
- Possessing or using unauthorized materials during the test.
- Buying, using, stealing, transporting, or soliciting a test, draft of a test, or answer key.

Plagiarism

- Using someone else's work in your assignment without appropriate acknowledgement.
- Making slight variations in the language and then failing to give credit to the source.

Collusion

- Without authorization, collaborating with another when preparing an assignment.

Grievances Other Than Grades

In attempting to resolve any student grievance, 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 senior vice president for finance and administration or the executive vice president for academic affairs and provost. If the matter remains unresolved at this level, the student may make a final appeal to the president. Appeals to the executive vice president for academic affairs and provost must be submitted in writing on an appeal form available in academic departments or the Office of the Registrar. (For grievances involving grades, see

instructions in the Academic Regulations section of this catalog.)

Campus Solicitations

"Solicitation," as defined in Rule 80103, Section 3 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 or 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 oral or written appeal or request to support or join an organization other than a registered student, faculty or staff organization; 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

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 the Rules and Regulations of the Board of Regents of The University of Texas System. Any authorized use must be conducted in compliance with the provisions of the Regents' Rules and Regulations (Rigents' Rules and Regulations, Rule 80101), the approved rules and regulations of UT Arlington, and applicable federal, state and local laws and regulations.

Student Travel Policy

Before any student organization travels, it is beneficial to come to the Office of Student Governance and Organizations to receive information about liability and to consider using release forms that are available (Texas Education Code, Section 51.950).

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 are 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.

Student Services

Counseling Services

305 Ransom Hall • 817-272-3671 • 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 seminars or meet in groups. Services are available to enrolled UT Arlington students at no charge.

Seminar topics vary by semester and may include Enhancing Self-Esteem, Stress Management, Relaxation Training, Healthy Dating Relationships, Test Taking Skills, Time Management, Improving Your Memory, Improving Your Study Skills and Career Exploration.

Group counseling themes include General Group Counseling, Advanced Relaxation Techniques, International Student Discussion Group and Career Exploration.

Career assessments and seminars 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.

University Advising Center

100 Ransom Hall • 817-272-3140 • www.uta.edu/advising/

The primary focus of the University Advising Center (UAC) is to provide advising for all first-time freshman students, regardless of their major as well as undeclared students regarding basic University rules and regulations, the core curriculum, clarification of academic goals, and the transition into an academic program. Emphasis is placed on helping students attain acceptance into their chosen program and progress toward a degree. UAC services include:

- Analysis of how interests and values fit with academic goals
- Core curriculum and general degree requirement information
- Program and course selection consistent with students' life and career goals
- Mid-semester evaluation
- Course scheduling and planning
- On-site registration facilities

The UAC, in addition to its service to students who are in a period of academic exploration, provides services for all students, including University policy and procedure explanation; probation, dismissal and reinstatement advising; and Texas Success Initiative (TSI) advising.

TSI assistance includes:

- Score retrieval
- Certification of completed developmental course sequence
- Developmental course selection
- Information on exemptions

The UAC administers several academic support programs:

- Gateway Advantage Program - Freshman students who are provisionally admitted to UT Arlington
- Conditional Admission Program - Transfer students who are provisionally admitted to UT Arlington
- Potential for Academic Success Seminar (PASS) - An ten-week, one-hour course focusing on study skills, time management, and academic self-efficacy for students on academic probation
- Major exploration

University College Programs

301 Ransom Hall · 817-272-6107
www.uta.edu/universitycollege/prospective/maverick-scholars/index.php

University College administers the Maverick Scholars Freshmen Interest Groups (FIGs) and Learning Communities, and the College Learning Course (EDUC 1302) for the Gateway Advantage program. We also coordinate the activities of several academic support programs such as OneBook program. University College Programs provides information and referral for students on University transition, transportation, disability assistance, academic support, financial aid, campus activities, and student health and wellness.

Adapting to a new college environment can present both academic and social challenges to first-year and transfer students. University College Programs links students to a wide variety of programs, activities, and services to enhance their UT Arlington experience. Both new and returning students are welcome to contact University College Programs at 817-272-6107 or access all our information at www.uta.edu/universitycollege.

Testing Services

201 Davis Hall · 817-272-2362 · www.uta.edu/testing

The Testing Services Office provides information to help students identify tests they may want to take for undergraduate or graduate admission, or credit by examination. Some academic departments at UT Arlington require tests prior to registration in order to place students in an appropriate course and/or to award college credit by examination.

The Testing Services Office has information on the following tests:

- Admissions Tests: SAT, ACT, Graduate Record Exam (GRE), Graduate Management Admission Test (GMAT), and Law School Admissions Test (LSAT).
- THEA Test: Used to meet Texas Success Initiative requirement and for College of Education admission requirement.
- Credit by Examination: Several programs are available to earn credit by examination. Visit the Testing Services' Web site for credit by exam options and policies, or pick up a Credit by Exam brochure in the Testing Services Office.

Some of these tests are offered in the Testing Office on a regular basis. For more

information access www.uta.edu/testing or call 817-272-2362.

Student Support Services

206 Ransom Hall - 817-272-3684
- www.uta.edu/sss

Provides free academic support to U.S. citizens or permanent residents who are low-income, first generation, and/or disabled. Services include:

- Four hours of free tutoring per week in up to 2 courses.
- Academic, career, personal, financial, and post-graduate education counseling.
- A private computer lab with state-of-the-art software, free printing, and technical assistance.
- Seminars relating to academic success and university life
- A laptop, calculator, and textbook lending program.
- Free admission to cultural events
- Financial literacy programs, including FAFSA preparation.

The goal of Student Support Services is to improve academic performance, increase retention and graduation rates, and foster an environment that supports students.

University Tutorial and Supplemental Instruction

205 Ransom Hall 817-272-2617
- www.uta.edu/tutoring
and www.uta.edu/si

Cost-Share Tutorial Program: Provides low-cost academic support to any UT Arlington student in a variety of courses. To work with a Cost-Share tutor on an individual basis, students charge the $6.50 per hour fee to their student account at the Cost-Share Office. Tutoring is offered for specific courses in the following subject areas: math, English, history, political science, physics, chemistry, biology, modern languages and statistics in addition to entry-level prerequisite courses in business and engineering. Online tutoring is offered in selected courses in business, liberal arts and science.

Supplemental Instruction (SI): A series of weekly review sessions led by an outstanding student who sits through the course again, prepares study aids and review materials, and leads group discussion. SI targets historically difficult academic courses and offers all enrolled students an opportunity to compare notes, discuss readings, develop organizational tools and prepare for exams. For each targeted course, three outside-of-class study sessions are offered each week as well as exam reviews for each major test. Supplemental Instruction is offered in selected biology, chemistry, mathematics, physics, engineering, accounting, economics, finance, statistics and history courses. SI handouts and SI leader e-mail and schedules are easily accessed through the Student Support Services Web Site at www.uta.edu/soar.

McNair Scholars Program

202 Ransom
Hall 817-272-3715 - www.uta.edu/mcnair

This federal program prepares eligible undergraduates (sophomores through seniors) for graduate study leading to the Ph.D. It recruits new scholars each fall from low-income/first-generation or underrepresented backgrounds for program

admission in the spring. McNair Scholars Program benefits include:

- Seminars focused on the skills and knowledge essential to future graduate study
- Faculty-mentored summer research internship (with $3,000 stipend)
- Summer scholarship for three credit hours of independent study associated with research
- Annual *UTA McNair Research Jo*urnal (highlighting student research)
- GRE preparation courses (each summer)
- Assistance with graduate school application process
- Participation in undergraduate research/professional conferences
- Graduate school visits
- Free tutoring
- Financial incentives for graduate study offered by graduate schools throughout the United States (including UTA)

Career Services

Career Services assists students and alumni in finding full-time, part-time and internship opportunities. Services provided include: career development workshops, job listings, resume referral, on-campus employment interviews, job fairs 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 interested in business careers.
- 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 and internships to students and alumni in all degree programs.

On-campus recruiting is conducted in the fall and spring semesters.

Career Services Locations

- Web site: careers.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 140, University Center, 817-272-2895

Center for Community Service Learning

B18 Davis Hall · Box 19124 · 817-272-2124 www2.uta.edu/ccsl

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 Theirot, Director, theirot@uta.edu, 817-272-2124.

Office of Information Technology (OIT)

Arlington Regional Data Center · Box 19318 · 817-272-3666 · 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, and University Hall. All of our facilities are networked and provide access to both UT Arlington systems and the Internet. These facilities allow students free laser printing; several feature color printing, scanning, and classroom facilities.

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, consists of high speed Alpha Servers and Intel servers running HP Tru64 UNIX and Redhat Linux. Numerous scientific and engineering applications software are available to researchers. Accounts on this system are offered to tenured or tenure-track faculty pursuing research for the University.
- A Compaq AlphaServer 4000 5/400 with twoEV56 processors, 1 GB of memory, and 74GB of RAID disk space. This system, called Omega, runs Digital UNIX and supports both teaching and research activities with various compilers, programming tools, utilities, databases and statistical packages. Accounts on this system are available upon request to all UT Arlington students, faculty and staff.
- A Compaq AlphaServer 4100 with four EV56 processors, 1 GB of memory, and 100GB of RAIS disk space. This system, called Epsilon, runs HP Tru64 UNIX and supports Oracle database management system. Accounts on this system are limited to those students enrolled in database classes.
- A Sun Ultra Enterprise 3000 with two UltraSPARC processors, 4GB of memory, and 218GB of RAID disk space. This system, called Gamma, together with its 41 SUN Ultra 1

Model 170E workstations available in OIT's Computing Facility in the Engineering Laboratory Building, runs Sun Solaris 7. It provides programming tools, libraries, utilities, engineering application software, and full network connectivity to the Internet. Accounts on this system 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 Undegraduate 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, www.uta.edu/helpdesk). All OIT labs and resources are available to current UT Arlington students, faculty and staff.

Health Services

605 S. West Street · Box 19329 · 817-272-2771 · www.uta.edu/health_services

UT Arlington Health Services is an on-campus, out-patient facility whose mission is to provide quality health care and promote healthy lifestyles in an accessible, cost-effective manner respect and compassion.

The UT Arlington Health Center is staffed and equipped to care for most routine health needs. Many services are free. A reasonable fee is assessed for services such as medications, x-rays, laboratory tests, etc. Financial support for the Health Center is partially funded by a Medical Services Fee carved out of student tuition.

Health services are available to all enrolled, fee-paying students. Students who choose not to enroll for a semester but who plan to enroll the following semester may receive treatment during the missed semester by paying the Medical Services Fee usually charged in their tuition. Student employees, such as GTAs, GRAs, TAs, and RAs, may utilize Health Services as students and therefore not pay a doctor-visit fee. Faculty/staff may receive treatment at

Health Services for urgent care and other selected services by appointment (817-272-2713) on a fee-for-service basis. Student employees and faculty/staff should ask whether Health Services accepts their UT Arlington employee insurance plan and should bring appropriate proof of insurance coverage to their visit.

Staffing: The staff includes full-time physicians, nurse practitioners, registered nurses, pharmacists, laboratory and x-ray technologists, clinical psychologists, a substance abuse specialist, a health promotion specialist, and support personnel. Health care is available at the Health Center during those times when the University is open. Services are not available during scheduled University holidays. During periods of closure, medical care received from another source will be the patient's financial responsibility.

Services Available

General Medicine: Students with common medical problems are diagnosed and treated on an appointment (817-272-2771) basis. Elective minor surgical procedures such as removal of cysts, moles, and warts, are available. Appointments are required for both the initial evaluation and surgery.

Allergy-Antigen Injections: If patients wish to receive allergy-antigen injections, their allergist should mail the antigen along with details of the allergies and proposed treatment program to Health Services for reference.

Women's Clinic: Health Services diagnoses and treats most diseases of the female reproductive organs. Consultations, contraceptive advice, routine Pap smears, diagnostic tests for sexually-transmitted diseases (STDs), and breast examinations are performed by appointment (817-272-2771).

Mental Health: Psychological and psychiatric assessment and treatment are available to students and faculty/staff by appointment (817-272-2771). Referrals to health agencies or other professionals are made when indicated.

Laboratory: The laboratory is equipped to perform all routine tests. For more sophisticated procedures, specimens are obtained and sent to a reference laboratory for testing.

Pharmacy: The pharmacy dispenses reduced-cost medications and provides medication counseling to students and faculty/staff. The pharmacy accepts the U.T. System student health insurance and both faculty/staff prescription plans. Health Services will dispense prescriptions from any licensed physician as long as the medication is in the formulary.

X-Ray: Health Services performs routine radiographic studies. After an initial reading by a Health Services physician, the films are sent to a radiologist for final interpretation.

Medical Records: Since 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 is available for a small laboratory fee 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 Web site and in the printed Schedule of Classes. First-time students, including transfer students, who reside in on-campus housing must provide a certificate signed by a health practitioner evidencing that the student has been vaccinated against bacterial meningitis at least 10 days prior to the student taking up residence in on-campus housing. (*Texas Education Code*, Section 51.9192; 19 *Texas Administrative Code* 21.610 et seq)

Substance Abuse Prevention: Health Services houses the Office of Substance Abuse Prevention, which is available to assist students and faculty/staff to make appropriate decisions regarding the use of alcohol and other drugs. This office also provides educational programs and materials concerning alcohol, drugs, sexual health, nutrition, wellness and other health-related topics. The University Policy statement, **"Illicit Drugs and Alcohol Abuse,"** is available at Health Services.

Peer Education: This student organization provides students, faculty/staff and the community with education and information on a broad range of health and wellness issues. The organization sponsors awareness events and conducts tailored presentations for various groups throughout the year.

Education: In the spirit of this educational community, it is hoped that students will also use Health Services as a resource for information on health-related issues and preventive medicine.

Patient Rights: Health Services recognizes its responsibility to ensure that every patient, regardless of sex, race, age, beliefs or handicap has the right to be treated with respect, consideration and confidentiality. Patients should take the initiative to communicate their concerns and questions about problems related to their health condition or medication, unclear procedures and previous health history. Patients have the right to seek a second medical opinion, to change primary or specialty physicians, and to be informed of and refuse to participate in experimental research.

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 Insurance: Health Services is not equipped to perform the more extensive diagnostic procedures and services such as those offered by a general hospital. Therefore, all UT Arlington students are strongly urged to have adequate 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. For more information about the Student Health Insurance Plan, contact Health Services at 817-272-2771. Insurance brochures and applications are available online at www.studentresources.com.

Blood Reserve Fund Plan: In cooperation with Carter BloodCare, UT Arlington sponsors a blood reserve fund plan for students and faculty/staff. To participate in the reserve fund, members are requested to donate regularly during semiannual blood drives held on campus. The release of blood credits is coordinated through Health Services.

Office of International Education

Swift Center, 1022 UTA Blvd. · Box 19028 · 817-272-2355 · 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.

Multicultural Affairs

Lower Level, University Center · Box 19353 · 817-272-2099 · www.uta.edu/multicultural

Multicultural Affairs offers a variety of programs that educate the campus about social justice issues and that celebrate the rich diversity found at UTA. The staff aims to provide activities that recognize diversity on multiple levels including, but not limited to, race and ethnicity, gender, sexual orientation, disability, and religious/spiritual diversity.

All UTA students are invited to join a Multicultural Mavericks committee where

they can help plan events for Hispanic Heritage, Asian Heritage, Black History, and Women's History Months. Opportunities to strengthen student's multicultural leadership skills can be found through the Black Leadership Institute, Women in Leadership program, or the annual Kaleidoscope Multicultural Leaders Retreat. Students can join in on a discussion at a Maversity workshop, which offers a safe space to dialogue about hot diversity topics. Maversity students who earn top honors for participation can become involved in the Leaders Educating About Diversity team and also help facilitate future diversity workshops. First year students can apply for the Promoting Academic Student Success program and connect with a peer mentor while taking advantage of individual counseling and free tutoring hours. A select group of seniors who have been committed to social justice while at UTA are invited to our hall of fame group, the Multicultural Senior Society. Get involved with the many culturally based student organizations with whom we work. The entire campus community can enjoy special events like Diversity Week and the Diversity Lecture Series which features distinguished speakers from around the country. And for future Mavericks, there is Multicultural Outreach, a subcomponent of the office and an initiative for recruiting underrepresented students to UT Arlington. For more information visit www.uta.edu/multicultural. Office hours are Monday–Friday, 8 a.m.–5 p.m.

Disability Services (Office for Students with Disabilities)

102 University Hall · Box 19510 · 817-272-3364 · TDD 800-RELAY TX · 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. - 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.

Student Legal Services

Lower Level, University Center · Box 19355 · 817-272-3771 · wweb.uta.edu/attorney

A licensed attorney is employed by the University and available to advise and consult with all currently enrolled students. 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. For more information regarding our services visit wweb.uta.edu/attorney. Office hours are Monday–Friday, 8 a.m.–5 p.m.

SOAR (Students Obtaining Academic Readiness)

132 Hammond Hall · Box 19509 · 817-272-3684 · www.uta.edu/soar

SOAR provides academic assistance to students through the following programs:

SOAR TRIO Programs

Student Support Services: Free academic support is offered for qualifying students.

- Trained and certified peer tutors work with small groups on a weekly basis.
- Professional counselors provide academic, career, personal and post-graduate education counseling.
- Software learning programs are available in the SOAR computer lab to enhance academic and study skills.
- Computer Lab Assistant is available to answer questions.
- Seminars relating to academic success and university life are conducted on a regular basis.

Since 1976, the purpose of Student Support Services has been to retain and graduate UT Arlington students. For more information, call 817-272-3684 or visit Room 132, Hammond Hall.

McNair Scholars Program: This federal program prepares eligible undergraduates (sophomores through seniors) for graduate study leading to the Ph.D. It recruits new scholars each fall for program admission in the spring. McNair Scholars Program benefits include:

- Enrichment/skill-building seminars
- Research methods enhancement
- Summer research program with stipend ($3,000)
- Three hours of independent study credit for summer research
- Annual McNair Research Journal (highlights student research)
- GRE preparation
- Assistance with graduate school application process
- Participation in undergraduate research/professional conferences
- Graduate school visits
- Free tutoring
- Financial incentives, such as the McNair Graduate Assistance Package (M-GAP) at UT Arlington, offered by graduate programs throughout the nation

For more information, call 817-272-3715 or visit Room 122, Hammond Hall.

SOAR University Tutorial

Cost-Share Tutorial Program: Provides low-cost academic support to any UT Arlington student in a variety of courses. To work with a Cost-Share tutor on an

individual basis, students charge the $6.50 per hour fee to their student account at the Cost-Share Office, Room 130, Hammond Hall. Tutoring is offered for specific courses in the following subject areas: math, English, history, political science, physics, chemistry, biology, modern languages and statistics in addition to entry-level prerequisite courses in business and engineering. For quick questions, Cost-Share offers online tutoring at no charge at www.uta.edu/soar/. Online tutoring is offered in selected courses in business, liberal arts and science.

Supplemental Instruction (SI): A series of weekly review sessions led by an outstanding student who sits through the course again, prepares study aids and review materials, and leads group discussion. SI targets historically difficult academic courses and offers all enrolled students an opportunity to compare notes, discuss readings, develop organizational tools and prepare for exams. For each targeted course, three outside-of-class study sessions are offered each week as well as exam reviews for each major test. Supplemental Instruction is offered in selected biology, chemistry, mathematics, physics, engineering, accounting, economics, finance, statistics and history courses. SI handouts and SI leader e-mail and schedules are easily accessed through the Student Support Services Web Site at www.uta.edu/soar/. Call 817-272-2617 or visit Room 130, Hammond Hall for more information.

YWCA Child Development Center

106 W. 6th St. (corner of 6th and Speerstreets) · 817-272-1135

The YWCA Arlington Child Development Center is operated by YWCA Fort Worth and Tarrant County and offers full-time infant, toddler and preschool child care. Children of faculty and staff are welcome, too! The center is open 6:30 a.m. to 6 p.m. Monday through Friday. Some scholarships are available for children of UT Arlington students and the center accepts CCMS (Child Care Management Services) funding. For enrollment information, call 817-272-1135.

Other Student Services

Several offices on campus offer specific services to students. Refer to the following directory for information regarding these services.

Office of Undergraduate Recruitment

123 Davis Hall

- Information for new freshmen and transfer students

Office of Admissions, Records and Registration

129 Davis Hall

- Transferring credits from another institution
- Application for undergraduate admission processing
- Withdrawals (resignations) from the University
- Application for graduation
- Information concerning degrees
- Address changes and name changes

- Student ID changes
- Request to withhold directory information
- Veterans' advising and enrollment certification
- Grade reports at termination of semester
- Request for transcript
- Registration
- Residency determination

Bursar Services

130 Davis Hall · Box 19649 · 817-272-2172

- 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 for an amount not to exceed $25. A $0.25 Check Cashing Charge will apply.

Police Department

University Police Building, 700 S. Davis

- 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 hang tags, rules and information (see Parking Fees)
- Maintains and operates University shuttle bus services
- Provides escort services for personal safety as requested

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.

To contact MavMail:

- Send an e-mail message to mavmail@uta.edu
- Drop a note in campus mail to MavMail (no box number needed)
- Use U.S. mail and address it to MavMail, UT Arlington, Arlington, TX 76019

The University of Texas at Arlington Administration

Executive Officers

James D. Spaniolo, J.D., *President*
Donald R. Bobbitt, Ph.D., *Provost and Vice President for Academic Affairs*
Ronald L. Elsenbaumer, Ph.D., *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*
Suzanne Montague, M.B.A., *Vice President for Information Technology*
Rusty Ward, M.S., *Vice President for Business Affairs and Controller*

Administrative Officers of Academic Units

Barbara Becker, Ph.D., *Dean, School of Urban and Public Affairs*
Bill D. Carroll, 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*
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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*
Gerald Saxon, Ph.D., *Dean, Library*
Beth S. Wright, Ph.D., *Dean, College of Liberal Arts*

The University of Texas System

Board of Regents

Officers

- Colleen McHugh, Chairman
- Paul Foster, Vice Chairman
- Janiece Longoria, Vice Chairman
- Francie A. Frederick, General Counsel to the Board of Regents

Member(s) with term set to expire February 1, 2011

- Brenda Pejovich
- Janiece Longoria
- Colleen McHugh

Member(s) with term set to expire February 1, 2013

- James D. Dannenbaum
- Paul L. Foster
- Printice L. Gary

Member(s) with term set to expire February 1, 2015

- R. Steven "Steve" Hicks
- Wm. Eugene "Gene" Powell
- Robert L. Stillwell

Student Regent with term to expire May 31, 2010

- Kyle J. Kalkwarf

Administration

Francisco G. Cigarroa, Chancellor
David B. Prior, Executive Vice Chancellor for Academic Affairs
Scott C. Kelley, Executive Vice Chancellor for Business Affairs
Kenneth I. Shine, Executive Vice Chancellor for Health Affairs

Tuition, Fees, and Charges

Overview

Tuition, fees, and charges are subject to change. Charges will be effective upon the date of enactment and will be reflected in tuition, fees, and charges assessed. Tuition, fees, and charges are authorized by state statute; however, the specific amounts and the determination to increase the fees and charges are made by The University of Texas at Arlington administration and The University of Texas System Board of Regents. (General Appropriations Act 2010-2011, Article IX, §6.16).
Visit www.uta.edu/fees for current tuition, fees, and charges.

Tuition is charged based on course of study; therefore, a precise session registration total may be calculated by accessing the Registration Cost Estimation site at www.uta.edu/fees.

Undergraduate students who enrolled under the fall 1999 or subsequent catalogs will be required to pay non-Texas resident tuition rates when they exceed 45 hours more than is required for completion of the degree program for which the student is enrolled.

A tuition discount will be given to students who meet ALL of the requirements published in the Designated Tuition Discount link at www.uta.edu/fees.

A tuition credit will be given to students who meet ALL of the requirements published in the On-Time Graduate Tuition Reduction at www.uta.edu/fees.

Failure to pay tuition, fees, and charges by the term/session payment due date constitutes voluntary withdrawal from the term/session.

Description of Tuition, Fees, and Charges

Tuition, fees, and charges are assessed to students based on session credit hours (SCH), a set charge per session, or specific services. They are required of 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 and

choose Description of Tuition and Fees for a detailed description.

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 admission to various University activities such as athletic events and for other situations where personal identification is required.

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, University Bookstore, 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.

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. Fees associated with the Mav Express Card (ID Card Replacement Fee) can be found at Description of Tuition and Fees (www.uta.edu/fees).

For additional information, visit www.uta.edu/mavexpress or call 817-272-2645.

Maverick Parking Garage

The optional parking garage is available at an additional per term 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. The garage is normally closed between terms. 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 a vehicle on campus, need a permit to enter or park legally on

campus (Texas Education Code, Section 51.207). Please order your permit online 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 www.uta.edu/police/parking. Parking permit fees can be found at Description of Tuition and Fees (www.uta.edu/fees).

Graduation Charges

A graduation charge must be paid by each baccalaureate degree candidate when application is made for graduation. If graduation is delayed past the stated semester, the student must reapply for graduation and repay the graduation charge. An additional charge to cover the cost of cap and gown is assessed to each candidate who plans to attend any graduation ceremony. Students who request that their diplomas be mailed after graduation will be required to pay the first class mailing cost.

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. “A student of this institution is not under any obligation to purchase a text-book from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.” (Texas Education Code, Section 51.9705; 19 TAC 4.215 et seq.)

Information about required and recommended course textbooks, including titles, authors, other publisher information and price, can be found at the UT Arlington Bookstore's website, accessible via http://www.bkstr.com. Further information about required course materials is available by reviewing individual course syllabuses at UT Arlington's Instructor and Course Syllabus Information website

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.

Housing and Food Expenses

Information about University housing may be found in the Student Housing section of this catalog. Information about campus food service may be found in the University Center section of this catalog.

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 following categories must have that eligibility certified prior to registration. For a complete description and eligibility requirements, please go to https://policy.uta.edu/UtaSfs/Application?cmd=exemptions. This Web site 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.

A dependent child of a member of the Armed Forces, who is a resident of this state or entitled to pay resident tuition, will be exempted from the payment of resident tuition for any semester or other academic term during which the members of the armed forces is deployed on active duty for the purpose of engaging in a combative military operation outside the United States (Texas Education Code, Section 54.203(b-2))

Payment of Tuition, Fees, and Charges

Please go to www.uta.edu/fees and select Payment Info and Due Dates or Refunds (Withdrawals and Drops) for information on due dates, deadlines, detailed penalties and refunds. Students will be given notice about their tuition bill, tuition receipt or an email in connection with tuition charges, of the amount of his/her tuition payment that is required to be set aside to provide financial assistance for students enrolled as the institution (Texas Education Code, Section 56.014)

Withdrawal for Non-Payment

Please go to www.uta.edu/fees and select Withdrawal for Non-Payment for information for a specific session.

Payment Options

Please go to www.uta.edu/fees and select **Payment Information and Due Dates** in the

Paying Your Bills section for deadlines and payment options for a specific session.

- Installment Payment Option: (Available in fall and spring semesters only) The Installment Payment Option is available to all students and requires payment of at least one third of your total current semester registration, plus all past due amounts, by the session payment due date. Additionally, if your tuition, fees, and charges increase for any reason, such as residency status changes or schedule adjustments, the new higher total must be used in your current session calculations. The service charge for choosing this option is $10 for each additional billing (max $20 per semester). By using the installment plan, you will not be eligible for a Designated Tuition discount.

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 for information.
- Enrollment Loans: Loans are offered only if funds are available and the borrower meets underwriting requirements. Loans are available at Bursar Services, Room 130, Davis Hall. Please visit our Web site, www.uta.edu/fees, and select Enrollment Loans for specified dates and requirements.

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, and the following credit cards: Master Card, Visa, Diners Club, Discover, and American Express. Any form of payment (check, electronic bank draft, or credit card) that is returned unpaid can result in enrollment withdrawal and additional penalties.

- Web: Pay by credit card or electronic bank draft/ACH transfer from your checking or savings account at www.uta.edu/makepayment/.
- 24-Hour Drop Box: Check or money order payments may be placed in the drop box located just inside the north entrance of Davis Hall adjacent to Bursar Services. 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, Davis Hall.
- Mail: Check or money order payments can be mailed to Bursar Services, Box 19649, Arlington TX 76019-0649. Please include your 10-digit student ID number. Do not mail cash or traveler's checks.

Concurrent Enrollment

Cooperative Programs Between University of Texas System Components

A student concurrently enrolling at two or more University of Texas System components may register and pay tuition, fees, and charges for all courses through the student's home institution. Detailed procedures may be obtained from the registrar of 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. (Texas Education Code, Section 54.011.)

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, Room 130, Davis Hall, 817-272-2172, each session prior to the payment deadline date to confirm that an authorization has been received and is sufficient to secure the current session registration.

Estimated Expenses

Annually, the Office of Financial Aid, Scholarships, and Veteran's Affairs estimates the average expenses for a full-time student for two semesters at UT Arlington. Current information may be found at www.uta.edu/fao, click Financial Aid, and then open the Cost of Attendance link (Texas Education Code, Section 61.0777).

Residency Regulations

Resident classifications are determined in accordance with Title 19, Part 1, 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 nonresident student must pay tuition, fees, and charges required of nonresident students. Students may access these rules at the Texas Administrative Code web site.

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 and turn them into the Undergraduate 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. 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 Residency Determination Official in the undergraduate school and have the student's classification officially determined. All requests for reclassification should be submitted to the undergraduate 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.

Audit of Student's Schedule and Fee Audit Adjustments

All adds, drops and other registration adjustments through the Census Date each semester will cause an immediate, automatic fee recalculation. An audit will be performed approximately six weeks into the semester in the fall and spring, sooner

in the short semesters. At that time, the appropriate charges or credits will be added to the student's registration account.

Tuition Rebate for Baccalaureate Graduates

Texas residents enrolling for the first time in a Texas public institution of higher education for the fall 1997 semester or later may be eligible for a tuition rebate up to $1,000 when the baccalaureate degree is completed (Texas Education Code, Section 54.0065). The student must have attempted all course work at a Texas public college or university and have been entitled to pay resident tuition at all times while pursuing the degree. The requested rebate must be for course work related to a first baccalaureate degree received from a Texas public university. No more than three hours may be attempted in excess of the minimum number of semester hours required for the degree under the catalog which the student is graduating. (Hours attempted include transfer credits, credit earned exclusively by examination, courses dropped after the official census date, for-credit developmental courses, optional internship and cooperative education courses, and those repeated exclusively by examination.)

An application form and any other requirements pertaining to the tuition rebate may be obtained from the Graduation section of the Registrar's Office. Interested students should apply for the rebate when filing for graduation prior to registration for the final semester. To be eligible, a student must apply for the rebate before degrees are awarded for that semester.

Refunds

Dropping Course(s) but Continuing Enrollment

Students who drop a course/s while remaining enrolled in the session are refunded in full for drops completed by the published session census date. However, because of the tiered flat rate tuition rates, not every drop will result in a credit to your account. For example, a student who is taking 15 hours and drops to 12 hours will not see a credit to their flat rate tuition amount because 12 hours costs the same as 15 hours (see Flat Rate Fee Schedule). No refunds will be credited and the student is financially responsible for the full cost of the course/s dropped after the published session census date. (Texas Education Code, Section 54.006).

Total Withdrawal from School

A student who officially withdraws from a session (drops all hours of a specific session) 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. Students who withdraw as a result of military service may choose to receive a full refund of tuition and fees, an incomplete (if eligible) or final grade at institution discretion. (Texas Education Code, Section 54.006.)

3. If the foregoing condition is not met, then the refund shall be as shown below. Class days noted are official university class days. They are not the individual student's class meeting days.

Fall, Spring and Summer 11-Week Sessions

During class days 1 through 5—80%

During class days 6 through 10—70%

During class days 11 through 15—50%

During class days 16 through 20—25%

After 20th class day—no refund

Intersessions, Summer I 5-Week and Summer II 5-Week Sessions

On first class day—80%

On second class day—50%

After second class day—no refund

Applicable dates and deadlines are available at www.uta.edu/fees. Select Refunds (Withdrawals and Drops).

4. Parking refunds must be applied for separately at the Parking Office, 1225 W. Mitchell.

Return of Title IV and Other Aid Funds

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 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 (see example below). 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, click Financial Aid on the left menu, then Return of Funds Policy. Contact the Office of Financial Aid for additional information.

Disbursement of Refunds

For your convenience, direct deposit of your refund is available. Information about direct deposit is published at www.uta.edu/fees, select Direct Deposit.

Inquiries concerning refunds should be directed to Bursar Services, Room 130, Davis Hall, 817-272-2172.

Current detailed information is available at www.uta.edu/fees. Select Refunds (Withdrawals and Drops).

Undergraduate Admissions

Office of Admissions, Records and Registration

123 Davis Hall · Box 19114 · 817-272-MAVS (6287) · Fax: 817-272-3435
· www.uta.edu/admissions
· admissions@uta.edu

Application for Admission

New prospective students who wish to enroll at The University of Texas at Arlington must apply for admission. They should apply as early as possible. All application materials—signed application, appropriate application fee or fee waiver documentation, official copies of transcripts of all high school and all college work attempted, and official test scores when appropriate—should be submitted by the priority deadlines. Completed applications will be accepted after the priority deadlines until the first day of classes. A late application fee will be assessed. However, adherence to the deadlines ensures careful evaluation of credentials resulting in an admission decision and notification of that decision to the student in time for orientation, academic advising, registration, and tuition/fee payment.

All documents, including official transcripts submitted to the Office of Admissions, become the property of the University and will not be returned to the student. Official transcripts must be currently dated with an issue date that closely corresponds to the date the admission application is submitted. An offer of admittance to UT Arlington is only valid for the semester indicated on the admission application. Applicants wishing to be considered for a future semester other than the one identified on their first application must submit a new application. Although a new application must be completed, a second application fee will not be required if the application is being updated for the first time within the same academic year. If the second or subsequent admission application reflects a change in academic history, the student must provide the new official transcripts and test scores reflecting any new work completed since the first application was submitted. Once complete, the student's admission status will be re-evaluated. The application for admission can be found at www.ApplyTexas.org.

Priority Deadlines

Application Deadline	Fall Semester	Spring Semester & Winter Intersession	Summer Semester & Summer Intersession
Freshmen	June 1	December 1	April 1
Transfer students	June 1	December 1	April 1
Former students	June 1	December 1	April 1
International students	May 1	October 1	March 1
Transient	June 1	December	April 1

students		1	

Apply Texas Application

Pursuant to Section 51.762 and 51.763 of the Texas Education Code, the Texas Higher Education Coordinating Board adopted a uniform undergraduate admission application called the Apply Texas Application. All undergraduate freshmen, transfer, former and transient students applying to a Texas public institution of higher education must use this form. It may be accessed and sent electronically via the Internet at www.applytexas.org.

Admission Application Fee

All new applicants to UT Arlington must pay a $35 (U.S. Citizen/Permanent Resident) or a $50 (International documents) non-refundable admission application fee. U.S. citizens and permanent residents with international academic credentials must pay a $50, instead of a $35 application fee. Any application or application fee received after the published application deadline will be assessed a $50 application fee. The fee must be paid by check, credit card or money order in U.S. dollars. Admission decisions will not be made until after the application, application fee and all academic credentials are received and reviewed. Applicants who are not admitted or who do not enroll on the basis of their original admission application may receive one free update within the same academic year.

Freshman Admission

An applicant for admission, to be admitted to The University of Texas at Arlington, must have graduated from an accredited high school or is on track to graduate from high school prior to enrollment at UT Arlington. Applicants must submit an application for admission, an application fee, an official high school transcript indicating rank-in-class and official scores on the Scholastic Assessment Test (SAT) or the American College Test (ACT). If an admission offer is made prior to graduation, a second official transcript that identifies the graduation date and final class rank will be required prior to the first day of classes.

All applications for admission from prospective freshmen are reviewed individually. Decisions are based on factors that predict academic success: rank-in-class; and scores on standardized admission tests at the freshman level.

Applicants who meet the minimum SAT/ACT requirements listed in this section or who graduated in the top 25 percent of their class from an accredited Texas high school are guaranteed admission. Those who have a different pattern of rank and test scores will be considered on an individual basis and may be asked to submit additional information such as recommendations from teachers and counselors, a writing sample or an interview. Applicants who do not meet unconditional criteria will also be evaluated on the following factors:

- the socioeconomic background of the applicant
- whether the applicant would be the first generation of the applicant's family to attend or graduate from an institution of higher education
- whether the applicant has bilingual proficiency
- the applicant's responsibilities while attending school, including whether the applicant has been employed, whether the applicant has helped to raise children, or other similar factors
- the applicant's region of residence

- whether the applicant is a resident of a rural or urban area or a resident of a central city or suburban area in the state
- the applicant's involvement in community activities
- the applicant's extracurricular activities
- the applicant's commitment to a particular field of study

In addition to current university requirements for admission, Texas Education Code, Sections 51.803, 51.804, 51.804(2) require applicants to also have either:

1. successfully completed the curriculum requirements for the recommended or advanced high school program or its equivalent; **OR**
2. satisfied ACT's College Readiness Benchmarks on the ACT assessment applicable to the applicant (minimum 18 on the English, 22 on Math, 21 on Reading, and 24 on Science) **OR** earned on the SAT assessment a score of at least 1,500 (Critical Reading + Math + Writing) out of 2,400 or the equivalent.

If the applicant does not meet admission requirements after individual review, admission may be deferred pending completion of a minimum of 24 transferable credit hours at a junior or community college with a grade point average of at least a 2.25. Students with at least a 2.0 but less than a 2.25 overall GPA are encouraged to apply and may be considered on a space available basis.

Prospective freshmen who have graduated from high school and who are not admissible unconditionally, may be offered the Gateway Advantage Program.

Rank in High School Graduating Class	**Minimum Acceptable SAT Score**	**Minimum Acceptable ACT Score**
Top 25%	No minimum score but students must submit scores.	No minimum score, but students must submit scores.
Second quarter	1050	22
Third quarter	1150	25
Fourth quarter	Individual review	Individual review
Minimum SAT scores are based on the highest Critical Reading score obtained added to the highest Math score.		
Engineering: For full-major status, applicants to the College of Engineering are required to present the following minimum test scores in addition to meeting other criteria specified in the College of	Minimum SAT Score	Minimum ACT Score

Engineering section of this catalog:		
	1200	28
Prospective engineering majors who meet general university requirements for admission, but not the above listed test scores, will be reviewed and considered on the basis of individual merits by the College of Engineering for admission as pre-majors.		

An applicant is entitled to automatic admission if the applicant meets the minimum requirements and is a child of certain public servants who were killed or sustained a fatal injury in the line of duty.(Section 51.803(e), Texas Education Code.

Entrance Examination

Freshman applicants for admission must take the Scholastic Assessment Test (SAT) or the American College Test (ACT). The SAT is given nationally in October, November, December, January, April, May and June. Any student graduating from high school in 2006 or later, must also submit the writing score from the new SAT or the writing score from the ACT. Students taking the ACT should make sure they sign up for the writing exam since it is an optional component of the regular ACT. Test applications and a sample test bulletin can be obtained from the Educational Testing Service, College Board ATP, CN 6200, Princeton, N.J. 08541-6200 or online at www.collegeboard.com/student/testing/sat/about.html. The ACT is given nationally in October, December, February, March and June. Test applications and a sample test bulletin can be obtained from American College Testing Program, P.O. Box 414, Iowa City, Iowa 52243 or online at www.actstudent.org. Test applications can also be obtained from a local high school or from the Office of Testing Services at UT Arlington. Applications will not be accepted later than one month prior to the test date. The applicant should complete one of the examinations at least three months prior to the start of the semester for which admission is sought. Test scores are only considered official if they are received directly from the testing service or are included on an official transcript.

High School Preparation

It is recommended that students complete the college preparatory program of study offered by their high schools. For purposes of admission as a freshman to the University, passing the General Educational Development Test (GED) is not considered to be the equivalent of graduating from high school. An applicant with a GED certification may be eligible for admission under the Individual Approval clause explained later in this section of the catalog.

In order for majors in architecture, engineering, biology, biochemistry, chemistry, mathematics, and physics, and B.S. candidates in geology and psychology to start their mathematics sequence with analytic geometry, applicants should have

at least 3 1/2 units of high school mathematics. Those who made low scores on the mathematics part of the SAT or the ACT examination are required to take, without credit toward a degree, the necessary mathematics courses prerequisite to taking analytic geometry.

Early Admission and Honors Academy Programs

The Early Admission and Honors Academy Programs are designed for high school students who wish to gain college credit at UT Arlington and the Honors College while still attending high school. It is also possible for students in some school districts to earn dual credit for their course work. Students should contact their home school district or the Honors College for further information regarding dual credit.

Early Admission students must submit:

- Applications for both general admission and the Early Admission Program.
- Official high school transcript showing course work through the sophomore year.
- Any of the following:

Official minimum SAT scores of 1050 (Critical Reading + Math), a minimum PSAT score of 105, a minimum ACT composite score of 22, or a minimum pre-ACT (PLAN) score of at least 19.

- Upon graduation, a final high school transcript showing graduation and final rank-in-class.

Each individual admitted into this program will be enrolled in regular University classes and will receive credit for the course work completed at the end of the semester. A permanent academic record will be established for each person enrolled under the Early Admission Program.

Upon completion of the Early Admission Program, a student who wishes to continue enrolling at UT Arlington must complete a Freshman Application for Admission and submit an official final high school transcript.

Honors Academy

The Honors College offers an outstanding program of study for exceptionally motivated high school students. A student may earn credit hours toward the college degree while also receiving credit toward the high school diploma for the course work taken at UT Arlington. Granting of dual credit is subject to the policies of each independent school district under the guidelines of the Texas Education Agency. Students should check with their home districts or the Honors College for more information regarding dual credit.

Honors Academy students must submit:

- Applications for both general admission and the Early Admission Program.
- Official high school transcript showing course work through the junior year. Students must be in the top 10 percent of their class.
- Official minimum SAT scores of 1,200 or minimum PSAT scores of 120, or minimum ACT scores of 27.
- Upon graduation, a final high school transcript showing graduation and final rank-in-class.

Qualified Honors Academy students are eligible to receive scholarships, will be enrolled in Honors College classes and will receive credit for the course work completed at the end of the semester. A

permanent academic record will be established for each person enrolled under the Honors Academy Program.

Upon completion of the Honors Academy Program, a student who wishes to continue enrolling at UT Arlington must complete a Freshman Application for Admission and submit an official final high school transcript.

Gateway Advantage (Provisional Admission)

A student who graduates from an accredited high school, but does not meet the minimum test score and class rank requirements for regular admission to the University, may be eligible for provisional admission in the Gateway Advantage Program. A Gateway student must enroll in the first year following high school graduation. Gateway students will only be admitted for the fall term. By completing the following requirements, a student may enroll for the next session and will be classified as an undeclared major until the first 30 hours have been successfully completed. The number of spaces available in the Gateway Program is limited.

A Gateway Program student must:

- Attend an orientation program on campus prior to registration. The purpose of this program is to advise the student of general University policies, course load, course scheduling and course registration. At this program, you will meet your Gateway Program Advisor.
- Enroll in a maximum of 6 credit hours to include EDUC 1302 'College Learning' and one other college level course.
- Satisfactorily complete all course work (i.e., fail no courses).
- Earn a 2.0 GPA or higher at the end of the first semester.
- Students who earn less than a 2.0 GPA at the end of the first semester will be dismissed and will be eligible to return to UT Arlington upon completion of 24 semester credits of transferable credit and a 2.25 GPA or higher from another college or university. Dismissed students may appeal this decision to the Gateway Program Appeal Committee.

To increase their chances for academic success, students will meet with an advisor in the University Advising Center (241 Davis Hall) several times during the first semester. The priority application deadline for the fall Gateway Program is June 1. All Gateway students must meet the requirements of the Texas Success Initiative (TSI) or provide proof of exemption prior to registration.

Individual Approval

Graduation from an accredited high school is a prerequisite for admission to the University for most individuals. However, freshmen with the following educational profiles may be considered for admission under certain circumstances.

- Graduates from unaccredited high schools
- Graduates from home schools
- Graduates with a General Educational Development (GED) certificate
- Texas residents age 21 or older who did not graduate from high school but scored at least 1010 (or 900 if the SAT score was earned prior to April 1995) on the SAT or 22 on the ACT.

Applicants should submit an admission application, application fee or fee waiver documentation, official transcripts of all high school grades completed from all unaccredited or home schools, official transcripts of all partially completed grades from accredited high schools, GED test scores if applicable, and official SAT or ACT test scores. Admission will be based on the freshman criteria stated in the Freshman Admission section of this catalog with emphasis placed on each individual's academic preparation and readiness to begin a college-level curriculum. Applicants with exceptional circumstances are encouraged to discuss their educational plans with an admission counselor.

Individuals age 25 or older who have graduated from an accredited high school may be considered for admission without taking the SAT or the ACT. The Admissions Review Committee and the director of admissions have the authority to waive the entrance examinations for applicants 25 years of age who can present persuasive evidence that they are prepared to profit by the studies they wish to take. Such students may, however, be ineligible for federal student aid under the "Ability to Benefit" rules. An individual admitted under this waiver will be required to enroll as an undeclared major until 30 semester hours have been successfully completed. An application for admission, an official copy of the high school transcript, official transcripts of all attempted college work and the application fee will be required for admission consideration. The testing waiver does not apply to international students who must submit the results of the SAT and TOEFL for admission purposes.

An applicant seeking admission under the Individual Approval provisions who has any course credit from previous college enrollment must meet the University transfer requirements for all college work attempted. Passing the General Educational Development (GED) Test is not recognized by UT Arlington as being equivalent to graduation from an accredited high school.

Students denied admission may appeal the decision by sending a letter of written appeal addressed to the Admissions Appeal Committee, The University of Texas at Arlington, Box 19111, Arlington, TX 76019. In the letter, students should provide the committee with the reason(s) they feel they should be admitted to the university and provide any additional information not provided at time of application including letters of recommendation, new transcripts, and new test scores. Students can expect a decision from the committee within two weeks from its receipt of the appeal.

Transfer Admission

Prospective students who have attempted college-level courses beyond 24 hours are considered transfer students. An applicant who is not eligible to continue at another institution for academic or disciplinary reasons is not eligible for admission to The University of Texas at Arlington. Applicants, whether a new or former student, who have attended another collegiate institution may not disregard any part of their academic record except as permitted under the "fresh start" option described in this section. Applicants who fail to report all college course work are subject to disciplinary action, including expulsion, and possible loss of credit for subsequent work taken at the University.

All college-level courses except those determined to be developmental or pre-college-level courses are used to compute a transfer grade point average. Grades earned in every course attempted are part of this calculation with the

exception of 10 hours of repeated courses. In the case of repeated courses, the second course attempt is counted and the first forgiven even if the second attempt is a withdrawal. Subsequent attempts after the second time a course is taken are counted toward the grade point average calculated for transfer admission. To be considered for admission, transfer applicants must have a minimum 2.25 GPA on all previous college work. Students with at least a 2.0 but less than a 2.25 overall GPA are encouraged to apply and may be considered on a space available basis.

Freshman Transfers

(less than 24 college hours completed)

Applicants who have completed fewer than 24 hours of transferable credit must have a grade point average of at least 2.25 to be admitted. In addition, they must meet the admission requirements for entering freshmen at UT Arlington. Freshman transfer students must submit: 1) an official score report from a national administration of the SAT I or ACT, 2) an official high school transcript showing graduation and rank-in-class, 3) a completed undergraduate application form, 4) official transcripts of all college work attempted, and 5) the application fee or fee waiver documentation. Students taking college classes while still in high school will be considered freshmen instead of transfer students.

Transfers With Sophomore or Higher Classification

(24 or more college hours completed)

Applicants who have completed 24 or more hours of transferable credit must have at least a 2.25 grade point average to be admitted. Students taking college classes while still in high school will be considered freshmen instead of transfer students.

Prospective transfer students who have completed 24 or more transferable credit hours must submit: 1) an undergraduate application for admission, 2) an official transcript from each accredited college or community college attended, and 3) the application fee or fee waiver documentation.

Transfers With Degrees

An applicant who has received a degree from another accredited senior college or university will be admitted as a degreed undergraduate. Acceptance into specific academic programs will be subject to the criteria set by each academic department. Applicants seeking a second baccalaureate degree must submit an application for admission, application fee, and an official transcript from each college attended as an undergraduate student to the Office of Admissions. The applicant should submit required credentials for admission by the priority deadline date. Non-degree seeking applicants must submit an application for admission, application fee, and an official transcript from the degree-granting institution. These procedures are for undergraduate admission only; information about admission to a graduate program may be obtained from the UT Arlington Graduate School. An applicant who wishes to take graduate course work before gaining admission to the Graduate School should contact the UT Arlington Graduate School and the graduate advisor in the appropriate academic department.

Credit Evaluation

The Office of Admissions completes an evaluation of transfer credit for all admitted degree-seeking students. This

evaluation does not constitute approval of the credit for use toward a degree. Decisions on which transferred courses satisfy degree requirements are solely within the jurisdiction of a student's academic department. Policies governing the evaluation of transfer credit include the following:

- Transfer credit is generally awarded for academic course credit earned from regionally accredited institutions or from institutions that are candidates for regional accreditation if the course credit was earned during the candidacy period.
- Occupational or some workforce courses from junior/community colleges, developmental courses, and courses classified as below freshman level by the sending institution are not transferable and will not count toward a degree.
- Workforce Courses that are agreed upon in Articulation Agreements between Texas community colleges and UT Arlington are transferable. The use of these courses is in the jurisdiction of the student's academic department.
- Junior/community college courses transfer as lower-division (freshman or sophomore) credit. Undergraduate courses from senior colleges transfer at the same level, lower- or upper-division, as they were taken. Graduate level course work may be transferred as upper-division credit at the written request of the student. Any graduate courses transferred in as upper-division undergraduate work will not be eligible for use at a later date in the graduate school.
- No limit is placed on the total amount of course credit accepted in transfer from either junior or senior institutions. However, use of transfer credit toward a degree may be limited by the student's academic department.
- Credit-by-examination earned at other institutions is treated as transfer credit only if the sending institution posts such credit on the student's transcript with regular catalog course numbers and with a grade of at least C, with the symbol CR, or with a similar designation representing credit earned without letter grade.
- Evaluation of military transcripts that include ACE, AARTS, SMART, CCAF and the Language Institute are evaluated for all admitted students.
- Credit in which a grade of D was earned is not transferable and will not count toward a degree.
- Grade Point Averages earned at other institutions are not transferred to UT Arlington.
- Transfer credit evaluations.

a. University course numbers may be modified in transfer credit evaluations to reflect differences in the number of credit hours. For example, if a course has 4 hours from the sending institution such as Mathematics "College Algebra," the course will be brought in as MATHTRAN 1000, since UT Arlington's "College Algebra" is a three-hour course.

b. Courses taught at other institutions often have no direct UT Arlington equivalents, but may be accepted in transfer. If such a course is in a discipline offered at the University, credit without a specific course number is awarded in the appropriate academic department. General elective credit may be awarded if no equivalent department exists at the University; use of elective credit toward a degree may be restricted by the student's academic department.

c. Courses taught at other institutions that are determined to be developmental or workforce credit are not accepted as transfer credit. Transfer credit of English courses taught at institutions in non-native English-speaking countries may be restricted or not accepted.

Transfer of Lower Division Course Credit

UT Arlington operates in accordance with Section 61.821, et seq., of the Texas Education Code. This statute recognizes that all lower division academic courses are fully transferable among public institutions and count toward the same degree at any public college or university in Texas. As such, any Texas Higher Education Coordinating Board approved core or field of study curricula are fully transferable to equivalent UT Arlington academic programs with the following stipulations:

- No institution shall be required to accept in transfer more credit hours in a major than the number set out in the applicable Coordinating Board-approved Transfer Curriculum for that major, as prescribed by the current issue of the Coordinating Board's guide, Transfer of Credit Policies and Curricula.
- In any major for which there is not a Coordinating Board-approved Transfer Curriculum, no institution shall be required to accept in transfer more lower division course credit in the major applicable to a baccalaureate degree than the institution allows their non-transfer students in that major.
- The university will only accept grades of C or higher in transfer credit.
- No university shall be required to accept in transfer or toward a degree more than sixty-six (66) semester credit hours of academic credits earned by a student in a community college. Universities, however, may choose to accept additional credit hours.

Catalog Eligibility for Texas Community College Transfers

A student transferring from an accredited public community college in Texas has the same choice of catalog, designating degree requirements, that would have been possible if the student's dates of attendance at the University had been the same as the dates of attendance at the community college. However, the student's choice of major may affect whether or not transferable course work may be counted toward a degree.

Resolution of Transfer Disputes

If the University refuses to accept lower-division credit earned at another Texas public institution of higher education, students and the institution where the credit was earned will be given written notice that the transfer credit was denied. If the denial of transfer credit is contested, the University will attempt to resolve the issue with the student and the sending institution according to applicable rules and guidelines of the Texas Higher Education Coordinating Board. If the dispute is not resolved to the student’s satisfaction or to the satisfaction of the sending institution within 45 days of the initial notification, the University will notify the Coordinating Board of the denial of the transfer credit and the reason for the denial. The Coordinating Board will resolve the dispute and notify all involved parties of its findings. For more information contact the Office of Admissions, Records and Registration at 817-272-6287.

Former and Continuing Students

A student who has attended UT Arlington previously, but has not been enrolled for one calendar year must reapply for admission by submitting an application for admission and application fee to the Office of Admissions, Records and Registration. Continuing students, those who have been officially enrolled at UT Arlington during the calendar year, do not need to reapply for admission.

If a former student has attended another college or university since last enrolling at UT Arlington, the student must submit official transcripts from all institutions attended. Academic performance in such work will be factored into the enrollment/eligibility process. Students transferring back to the University must have a minimum cumulative 2.25 grade point average on all college-level courses attempted since last enrolled at UT Arlington. Former students on academic probation or suspension upon resigning from UT Arlington may be required to obtain special permission to re-enroll from the academic dean's office of their intended major or from the University Advising Center.

Any student who withdraws from the University to perform active military service (not including Texas National Guard training exercises) will not have to reapply for admission, but 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. This right to readmission is afforded under Section 51.9242, *Texas Education Code*.

Applicants cannot be admitted without required credentials. Former international students seeking readmission must refer to the catalog section titled International Students.

Transient Admission

Undergraduate students who are pursuing degrees at other colleges and universities during the long session (fall and spring semesters) and wish to continue their studies at the University for one semester may be admitted to some undergraduate programs as transient students. Individuals who wish to enroll as a transient student must submit an admission application, application fee and official transcript from their home campus. Admittance requires good academic standing from the home institution. Transient students may not enroll in two consecutive semesters at UT Arlington. A transient student who wishes to be admitted to the University on a regular basis must apply for admission in accordance with the procedures, criteria and deadlines governing transfer admission. Students who attend the University as transient students and then are admitted on a regular basis are immediately subject to the University's academic regulations. In particular, such students will be placed on scholastic probation upon enrollment if their grade point average for work undertaken as a transient student at the University is below 2.0. Transient students are subject to all Texas Success Initiative (TSI) requirements. TSI requirements are listed in the Office of Counseling and Career Development section of this catalog.

International Students

All prospective students from countries other than the United States who are not immigrants and have not been granted permanent residency must submit: 1) an

International Student Application. 2) the application processing fee of $50 U.S., which is not refundable. 3) **Entering freshmen** must present completed official secondary school transcripts, diplomas, certificates and/or national test examination scores as appropriate for the educational systems in their country. In order to be considered for freshman admission you must have completed a secondary school series equivalent to that of United States high school graduation. Transcripts and exam marks should be attested as true copies of the originals by the school you attended. Notarized copies are not used for admission. If documents are written in a language other than English, complete and official English translations must be provided with the original language transcripts, exam records and diplomas. Official SAT I or ACT scores are required for entering freshmen with less than 30 semester hours of university level course work (equivalent to one year of full time study). The minimum required SAT I score for entering freshmen educated in a country other than the U.S. is 900. The minimum ACT score is 19. International Freshman applicants educated in the U.S. must meet U.S. freshman admission standards regarding high school class rank and SAT I or ACT scores. Scores must be sent directly to UT Arlington from the Testing Service in order to be considered official. Student score reports are not used for admission processing.

International Transfer Students must submit official transcripts or mark-sheets of all college or university level course work showing subjects completed and grades (marks) earned. Transcripts and diplomas must be attested as true copies of the originals by the school you attended or UT Arlington. Notarized copies are not used for admission. If documents are written in a language other than English, complete and official English translations must be provided with the original language transcripts, exam records and diplomas.

4) Official TOEFL scores are required from International students (entering freshman and transfer students) from non-native English speaking countries on the following visas: B, C, D, F, H-4 dependents of H-1C, H-2A, and H-2B visa holders, J, M, O-2, O-3, P, Q, S, TN, TD, TWOV. Applicants who have graduated from secondary schools or colleges in the following countries are exempt from the TOEFL: Anguilla, Antigua, Australia, Bahamas, Barbados, Belize, Bermuda, British Virgin Islands, Canada (except Quebec), Cayman Islands, Dominica, Grenada, Grand Cayman, Guyana, Ireland, Jamaica, Liberia, Montserrat, New Zealand, Sierra Leone, St. Kitts and Nevis, St. Lucia, St. Vincent, Trinidad/Tobago, Turks and Caicos Islands, and United Kingdom.

The TOEFL will be waived for those applicants:

- who have an SAT I verbal score of at least 480 or an ACT I English score of 19, or
- who have completed English Composition I and II with a grade of C or better, plus 24 additional transferable hours at a college or university located in the U.S.

The minimum acceptable score on the TOEFL is 79 on the Internet-based test, 550 on the paper-based test and 213 on the computer-based test. Scores must be sent directly to UT Arlington from the Testing Service in order to be considered official. Student score reports are not used for admission processing.
5) The applications of prospective students from countries other than the United States are reviewed on an individual basis, and admission decisions are based on the strength of the previous academic work,

scores on the SAT if required, and the Test of English as a Foreign Language score. Academic background and curriculum are important considerations in decisions on admissibility.
6) International students who plan to attend UT Arlington on an F-1 (student visa) and who wish to be issued an I-20 must present a copy of their passport, I-94 card and evidence of sufficient financial support while studying in this country. Please see the latest Financial Statement Form at UT Arlington's Web site at www.uta.edu/admissions for the most current estimate to be documented and types of acceptable documentation.
7) International Students on any visa other than F-1 must present a copy of their passport and I-94 card.
8) Prior to course registration each prospective International student must clear through the Office of International Education. In addition, International students on the following visas are required to attend an International Orientation before registering for classes: A-2, e-2, F-1 (including transfer students) H-4, J-1, J-2, L-2, O-3, R-2, TD.

9) Prior to course registration each prospective International student must have a Tuberculosis screening and/or chest X-ray in order to enroll. For further information please call the Health Services Immunization Clinic at 817-272-7143 or visit their Web site at www.uta.edu/health_services.

Texas Success Initiative

All new entering UT Arlington undergraduate students must meet the requirements of the Texas Success Initiative (TSI). (Texas Education Code, Section 51.3062 and 19 Texas Administrative Code §4.51, et seq.)

The Texas Success Initiative has been developed by the state legislature to ensure student success at institutions of higher education. The two major steps of the program are (1) assessment of each student's academic skills in reading, writing, and math before enrolling and, (2) advisement into appropriate developmental coursework for any academic skills that need improvement. Under the Texas Success Initiative, all new entering students must take the Texas Higher Education Assessment test unless the student is exempt.

You are exempt if you:

- took the SAT I less than 5 years ago and made a qualifying score of 1070 total (does not include essay), with 500 verbal and 500 math.
- took the ACT less than 5 years ago and made a qualifying score of 23 composite, with 19 English and 19 math.
- took the TAAS test less than 3 years ago and made a qualifying score of 1770 writing, a Texas Learning Index (TLI) of 89 on the reading test and 86 on the math test.
- took the TAKS test less than 3 years ago and made a qualifying score of 2200 reading, 2200 math and 3 on the writing.
- have a bachelor's degree or associate's degree from an institution of higher education.
- are serving on active duty as a member of the armed forces of the United States, the Texas National Guard, or as a member of a reserve component of the armed forces of the United States and have been serving for at least three years preceding enrollment.
- were honorably discharged, retired or released from active duty on or after August 1, 1990 as a member of

the armed forces of the United States, the Texas National Guard, or as a member of a reserve component of the armed forces of the United States.
- a student who has previously attended any institution and has been determined to have met readiness standards by that institution * a student who is enrolled in a certificate program of one year or less (Level-One certificates, 42 or fewer semester credit hours or the equivalent) at a public community college, a public technical institute, or a public state college.
- are a non-degree seeking or non-certificate-seeking student.

Taking the Texas Higher Education Assessment

UT Arlington requires incoming students who are not exempt to take the Texas Higher Education Assessment (THEA), Asset, Compass or Accuplacer test. To find out more about THEA, go to www.thea.nesinc.com or the UT Arlington Testing Services Web site: www.uta.edu/uac/testing/tsi-thea.

If you took THEA or Quick THEA and did not have the scores sent to UT Arlington, notify the Office of Admissions, Records and Registration so the scores can be retrieved from National Evaluation Systems. The following offices can retrieve scores if the student signs a waiver to release scores to the University:

- University Advising Center
- Office of Admissions, Records and Registration

If you attended a Texas public college for dual-credit while you were in high school or are transferring from a Texas public college, you were required to take one of the tests approved by the Higher Education Coordinating Board – THEA, ASSET, COMPASS, ACCUPLACER (or MAPS if taken before September 1, 2003.) All these tests are accepted by UT Arlington.

Your scores should be listed on your college transcript. It is your responsibility to ask your community college to send an official transcript to the UT Arlington Office of Admissions.

We also accept faxed scores if they are sent directly from the college you attended. The fax number for the Office of Admissions, Records and Registration is: 817.272.3435.Note: The Office of Admissions, Records and Registration will not accept transcripts for evaluation of transfer courses by fax.

If you do not pass a section of the THEA or alternative assessment, you are required to enroll in developmental coursework for the failed areas. You should speak with your advisor to ensure that you are enrolled in the right courses: www.uta.edu/uac/studentsuccess-home.

Major Classifications

All entering students will be classified either as undeclared majors, intended-majors or majors. All entering students who are not ready to declare a major will be admitted as undeclared majors.

All first-time freshman students and freshman transfer students will be advised by the University Advising Center in University College for their first year and then advised by departmental advisors thereafter. Undeclared majors beyond the

first year will continue be advised in the University Advising Center until they are ready to move into an intended major or major.

Transfer students will be advised by a departmental advisor for the intended major or major, unless admitted as an undeclared major and be advised by the University Advising Center.

Enrollment as a Non-Degree Student

A student who holds a bachelor's degree from an accredited institution, including The University of Texas at Arlington, may choose to apply for admission as a non-degree student in one of the undergraduate colleges or schools and is subject to the rules that apply to other undergraduates. Students may, with the approval of the director of admissions and the academic dean, change to degree-seeking status in an undergraduate college.

Consideration for the non-degree option is made by submitting an admission application, application fee and an official transcript showing the awarding of at least a bachelor's degree. Materials must be submitted by the deadline for undergraduate admission.

Admission to a Degree Program

Admission to the University's degree programs is determined by application to the academic unit offering the degree. Before being admitted to a degree program, students must fulfill all departmental and college requirements. Degree programs may require students to complete additional courses or hours in residence prior to applying for admission to the degree program. Until students are admitted into a degree program, students will remain on pre-major status.

Criminal Background Check

Some programs require a criminal background check as a condition of admission or program completion or licensure expectations concerning acceptable qualifications. Applicants should examine departmental requirements with care.

Academic Fresh Start

Section 51.931 of the Texas Education Code provides that a resident of Texas may apply for admission to the University as an undergraduate student without consideration of course credit or grades earned 10 or more years prior to the semester the applicant plans to enroll. To be admitted, the applicant must meet the admissions standards in effect at the time of application. Students admitted under the "fresh start" option may not receive credit for any course work taken 10 or more years prior to enrollment. The Academic Fresh Start provision does not affect Texas Success Initiative exemptions claimed on the basis of college credit earned prior to September 1989.

After enrollment, a message will be posted to the student's academic record at UT Arlington indicating admission has been g ranted through the Academic Fresh Start provision. Once this option has been claimed and the student has enrolled at any state institution, the provision cannot be reversed. An applicant may use the

Academic Fresh Start provision only once at UT Arlington.

Academic Fresh Start may be claimed only upon application to the University and will not be applicable to currently enrolled UT Arlington students. Once a student has enrolled, Academic Fresh Start may only be requested upon application for readmission to the University. Students apply for readmission after resigning for one calendar year. All requests for Academic Fresh Start should be made to the Office of Admissions by completing an Academic Fresh Start form.

Orientation and Early Registration

Orientation and Early Registration is a program which includes placement testing, group sessions to prepare for the transition to UT Arlington, resources for academic success, and an introduction to social and extracurricular opportunities. A highlight of the program is early advising and registration.

Upon completion of the admission requirements and admittance to the University, students are sent information regarding orientation from the UT Arlington Division of Student Affairs. The orientation program is required for all first-time freshmen students.

For students starting UT Arlington in the fall semester, several orientation options are available. New freshman students may attend one of several one-and-a-half-day sessions offered in June, July and August. Students have the option to stay overnight in the residence halls. Parents of freshman students are invited to attend a separate but concurrent program. There are limited accommodations for parents or guests on campus. Transfer students and adult students may attend a one-day program in July or August. All Orientation programs conducted during the summer include Academic Advising and Early Registration. For students starting in the other semesters, Orientation and Early Registration is offered prior to the start of the semester.

International Student Orientation

The New International Student Orientation provides new international students with information about immigration matters, health services and health insurance, registration procedures, academic rules and regulations, cultural adjustment, and Office of International Education programs and activities. Attendance at this orientation program is required for all non-immigrants who are new to UT Arlington, including transfer students. Orientations are offered on various days in the two weeks preceding each semester. Students are notified by letter of this New International Student Orientation at the time of notification of admission. The dates and details of orientation are included in this letter. Attendance at any other UT Arlington orientation does not substitute for attendance at the New International Student Orientation. Those who do not attend will not be allowed to register during regular registration and must attend a makeup orientation program before being allowed to register in late registration.

College Credit by Examination

The University of Texas at Arlington recognizes that many excellent students have gained academic achievement in certain subject areas prior to entering an

institution of higher education. UT Arlington strongly encourages such superior attainment, recognizes it for academic purposes and permits students who have done such work to obtain course credit through examination. Students will be given the opportunity to receive credit by examination in courses within the regular curricular offerings of the University where proficiency may be practically and validly determined by examination.

UT Arlington uses several examination programs to assess the prior academic achievement of undergraduate students. The University awards credit for scores on certain tests from the College Board Advanced Placement Program (AP), the College Board College Level Examination Program (CLEP), the College Board SAT II: Subject Tests, the DANTES Subject Standardized Test (DSST), and the International Baccalaureate Program (IB). UT Arlington also offers advanced standing examinations prepared by departmental faculties.

The following policies govern the awarding of credit by examination by UT Arlington:

- Credit by examination is available to undergraduate students with a completed application on file, currently enrolled students, and formerly enrolled students who meet eligibility requirements. Provided the student has neither passed nor failed that course at the University of Texas at Arlington (including a Z in English). Credit by examination will not be given for a course the student previously passed or failed, or received transfer credit at UT Arlington. Additional eligibility requirements for certain courses are listed in Assessment Services Credit by Examination brochure or on their Web site.
- Although prospective students may take examinations to establish their eligibility to receive credit, credit is awarded only to currently enrolled students or to former students who meet eligibility requirements.
- Credit by examination may not be used for graduate credit and no such credit, graduate or undergraduate, may appear on graduate student transcripts.
- Credit earned by examination satisfies degree requirements in the same way as credit earned by passing courses except it does not count as credit earned in residence. Credit by examination cannot be used to satisfy general degree requirements for: (a) 30 semester hours in residence, (b) at least 18 semester hours in residence of advanced course work (courses numbered 3000 and 4000), to include 12 hours of advanced course work in the major field. Credit by examination can be used to meet prerequisites for higher-level courses.
- After the official Census Date, students may earn credit by examination for a course they are enrolled in only upon written approval of the chair of the appropriate academic department.
- Most academic departments award semester hours of credit, but no letter grades. In a few subjects, credit may be awarded with grades of A, B or C, depending on the level of test performance. For each course in which grades are assigned, students may choose to accept credit hours recorded either with the letter grade or as credit only. Accepting credit only will not affect a student's cumulative grade point average. After credit has been posted to the academic record, a

student's choice, letter grade or credit only, cannot be changed.

- To have credit reported to the registrar, official test scores must be sent to Assessment Services for credit by examination to be awarded. Students must complete a Petition to Record Credit by Examination at the Assessment Services office. Credit by examination will be posted to a student's official record after the student has enrolled and completed one semester at UT Arlington. Unsuccessful attempts to earn credit by examination are not recorded on students' academic records.
- Credit by examination on a transcript from another institution of higher education is considered transfer work and will transfer to UT Arlington, subject to the same conditions as corresponding resident course work from that institution. The Office of Admissions, Records and Registration is responsible for evaluating all transfer work.

Further information regarding test dates, registration procedures and deadlines, fees, current eligibility criteria and petitioning to record credit may be obtained from Assessment Services in Room 201, Davis Hall. Students may write to Assessment Services, University of Texas at Arlington, P.O. Box 19156, Arlington, Texas 76019; call 817-272-3670; or FAX to 817-272-5792; e-mail testing@uta.edu; or Web site www.uta.edu/uac/testing-home.

Placement Examinations

Certain departments offer (or require of) the student an exemption from taking courses based on departmental placement examinations. Such exemption does not grant credit for the course but permits the student to enroll in the next course in the subject area.

Modern Language Placement Examination

The Modern Language Department recommends that students who are native speakers, have high school credit, or equivalent knowledge of French, German or Spanish language take a placement exam prior to enrolling in certain lower-division language courses. Modern Language placements tests are the CLEP French, German, or Spanish Language exams and may be taken in an attempt to earn credit by examination. Students have the option to choose credit with letter grade or credit without letter grade for credit earned depending on level of test performance. Additional credit by examination policies and information are found at www.uta.edu/uac/testing-home.

Texas Residency for Tuition Purposes

The Office of Admissions, Records and Registration determines Texas residency status for all new and continuing UT Arlington undergraduate students. Graduate students should contact the UT Arlington Graduate Office. A review of responses on the admission application is conducted by the residency determination official in accordance with Title 19, Chapter 21, Subchapter B of the Texas Administrative Code.

When incomplete, insufficient or conflicting information is presented on the admission application, the student will be sent a Core Residency Questionnaire. This should be completed and returned to the Office of Admissions, Records and Registration with

appropriate supporting documentation prior to registration. After the Core Residency Questionnaire has been reviewed, the student will receive a written response of the residency determination from the Office of Admissions, Records and Registration.

Report of Medical History

A Report of Medical History form will be sent to students when they are accepted for admission.

First-time students: Prior to registration, a first-time student must submit a Report of Medical History to UT Arlington Health Services. It is the responsibility of the student to complete the health form and mail it to UT Arlington Health Services at least two weeks prior to registration. A Report of Medical History form will be sent to students when they are accepted for admission.

Students who are from countries other than the United States and who are not immigrants or have not been granted permanent residency: All students who are from countries other than the United States and who are not immigrants or have not been granted permanent residency must submit to UT Arlington Health Services an International Health Card issued within the past year. The International Health Card must note that the student has tested negative for tuberculosis. Once the card has been presented, the student will be cleared to register for classes. Students who do not present this card will not be permitted to enroll in classes.

International students: In addition to the International Health Card requirement, all international students must be tested by a U.S. medical facility for tuberculosis prior to the 25th class day. Failure to receive clearance from a U.S. medical facility will result in the removal from classes. Testing is available at UT Arlington Health Services.

First-time Non-U.S. Citizen/Non-Permanent Resident and Intensive English students: The University of Texas at Arlington requires all entering Non-U.S. Citizen/Non-Permanent Resident and Intensive English students to:

- Have a Tuberculosis screening and/or chest X-ray performed at UT Arlington Health Services upon arrival to the University for classes. TB screening or chest X-ray will be performed even if the student has been vaccinated with BCG (vaccine for TB usually administered to children and effective for 8-10 years-not widely used in the U.S.).
- Ensure that all documentation is complete and submitted to UT Arlington Health Services by the 25th class day or the student will be dropped from classes without reinstatement privileges. Students dropped from classes due to non-compliance will not be eligible for a refund of tuition or fees.
- For the complete text of the UT Arlington policy concerning Tuberculosis screening, please visit UT Arlington Health Services.

University Calendar (2010 - 2011)

University Academic Calendar (2010-2011)

Summer Intersession 2010

Summer 1st Five Weeks 2010

Summer 11 Weeks 2010

Summer 2nd Five Weeks 2010

Fall 2010

Winter 2010/2011

Spring 2011

Summer Intersession 2011

Summer 1st Five Weeks 2011

Summer 11 Weeks 2011

Summer 2nd Five Weeks 2011

University Library

University Library

Box 19497 - 817-272-3000 -library.uta.edu

The UT Arlington Library is one of the most important resources on campus for teaching and research. The Central Library, two branch libraries and three electronic libraries cumulatively house 1.2 million physical volumes on the shelves and provide access to more than 41,000 full-text print and electronic periodicals and newspapers, access to 241,000 ebooks, and a rapidly growing collection of digital and analog media, including documents, technical reports, microforms, motion pictures, streaming videos, computer disks, sound recordings and maps. The Library consists of the large Central Library, the Architecture and Fine Arts Library, the Science and Engineering Library, and e-Libraries at the UT Arlington/Fort Worth Center location at Santa Fe Station, the Electronic Business Library in the Business Building, and the Electronic Social Work Library in the Social Work complex. The e-library sites offer access to electronic information and attention from subject librarians. Materials may be obtained via the Web, document delivery services, the shipping of texts to distance education students, TexShare, and through Interlibrary Loan services. Materials requested from the UT Arlington campus' Library Collection Depository, a remote storage facility for low-use materials, have a 24-hour turnaround time.

The Library provides access to print and electronic information through the online catalog (pulse.uta.edu) and many specialized web pages within the UT Arlington Library Web site (library.uta.edu/). Databases, full-text journals and e-books are available on all library computers and via laptops using the library wireless network. Access is also available through any UTA IP connected computer on campus, such as faculty offices, the Internet Cafés, Office of Information Technology (OIT) computer labs or dorm data ports, and off campus by logon through the University modems or via proxy server. Visit the Library's home page and click on the header "Research Resources" for a comprehensive listing of indexes, abstracts, and full-text sites in the A to Z Database List.

The Library provides access to thousands of electronic databases and online journals. Among the more popular databases are: Academic Search Complete, a scholarly, multidiscipline, full-text database with almost 7,400 journals and indexing and abstracts for the nearly 11,500 journals in the collection; LexisNexis Academic, which provides access to over 6,000 international titles in news, business, legal, medical and reference information; Business Source Complete, which provides full text for more than 1,300 scholarly business journals; ACM

Digital Library, which indexes journals and proceedings of the Association for Computing Machinery; Factiva, which covers over 28,000 business and finance sources from 157 countries; IEEE Xplore, which covers all IEEE and IEE publications; netLibrary, a searchable full-text access to thousands of electronic books; the Nursing Collections, a full text of 45 leading journals in both general and specialized fields; Project Muse and JSTOR, which are collections of full-image journals in the humanities and social sciences; and Science Direct, which provides full-text Elsevier and Academic Press journals. Find information about the subject databases at http://libguides.uta.edu/.

Staff in the Central Library's Information Services Department, the Science and Engineering Library, the Architecture and Fine Arts Library, Special Collections, and the facilities of the UT Arlington/Fort Worth Center provide assistance using the Library's collections. The Electronic Business Library in the Business Building has librarians to assist students and faculty with specialized business databases and collections such as Compustat, Datastream, and GIS (Geographic Information Systems) software. The Social Work Electronic Library (SWEL) is located in the Social Work complex, and has such popular specialized software as the Statistical Package for the Social Sciences (SPSS). Productivity software is available on computers throughout the public areas of the library, and specialized equipment and software are available in the Digital Media Studio. The Library has laptop computers available to check out from each Circulation Desk to use independently on the Library's wireless network. or in conjunction with the Internet Café data ports. Some of these laptops may be checked out for 24 hours and may leave the building.

The Central Library is responsible for the humanities, social sciences, business, nursing, education, geology, legal materials and government publications. As a Federal Depository Library, the Library's Government Publications and Maps Collection have extensive print and digital holdings of publications of the United States government and international organizations. The Central Library also contains the MultiCultural Collection, a circulating and reference collection covering the political, social, cultural, economic, and intellectual history of Native Americans, African Americans, Asian Americans and Mexican Americans in the southwestern United States from U.S. Independence to the present. The Central Library houses a microform collection with reading/printing equipment, the Reading Resources Room that provides a curriculum library and a collection of juvenile and young adult literature, and the McNaughton collection of popular fiction, that includes both popular books and recorded books on CD. Group study rooms can be found in Central and SEL, several of them containing special equipment. Other quiet and group study areas can be found throughout the libraries.

Special Collections contains the Jenkins Garrett Library of Texana and Mexican War material and the Virginia Garrett Cartographic History Library. Special Collections includes archives relating to UT Arlington's history since 1895 and the history of organized labor in Texas and the Southwest. Special Collections also holds archives and newspapers of Yucatán, colonial archives of Honduras and collections relating to the political history of Texas. The department's historical photograph and negative collection, which includes approximately 4 million images of Texas dating from the 19th through most of the 20th centuries, is one of the best in the state.

The Science and Engineering Library is housed in the basement of Nedderman Hall. It includes materials pertinent to engineering, biology, physics, chemistry, and mathematics, including reference, circulating books, reserve, and periodicals.

The Architecture and Fine Arts Library is housed on the first floor of the Architecture Building. Its collection includes all materials pertinent to architecture, art, photography, and music, including reference, circulating books, reserve, periodicals, scores, musical records, cassettes, and compact disks. It houses a music listening lab.

Materials not available in the UT Arlington Library may be borrowed from other libraries through the Interlibrary Loan Office, a unit of the Department of Access Services. For students, staff, and faculty the TexShare library card entitles the bearer to privileges in libraries of universities, law and medical schools, private and community colleges across Texas, as well as some public libraries.

Non-library services available at the Central Library include a first-floor Internet Café called Sam's Click Café, a joint venture between the UT Arlington Library and the Office of Information Technology. The OIT help desk, where students may set up new accounts, is in the café, and a Starbucks coffee bar nearby serves a large array of coffees, teas, soft drinks, and snacks. The café has nearly 100 computer workstations, numerous laptop dataports, two state-of-the-art group study rooms, and overstuffed furniture in the relaxed and popular environment. A second quiet computer facility called Quiet Sam's is located on the fifth floor of the Central Library, adjacent to an OIT-maintained GIS classroom in room 510. Users will find a photocopy center located in the basement, and the fourth floor English Department Writing Lab is available to all UT Arlington students. A Wells Fargo Bank ATM machine is located adjacent to the front door of Central Library.

Students each receive a generous print quota for the academic year. In the Fall semester each student is given a dollar amount print quota for the academic year, which includes Fall, Spring, and Summer. New students enrolling in the Spring or Summer semester are given a prorated quota depending on the semester they enter. The Pharos automated print management system is tied to each Maverick student account, and is for use at public printers campus-wide, and may now be used in the photocopy machines as well. The quota amount is not to be considered as a cash gift and is not refundable if not expended, nor does a balance carry over from one academic year to another. Each branch has a Knowledge Imaging Center (KIC), a machine designed to make walk-up scanning as easy as walk up copying, but is free of charge. Scans may be emailed or saved to a flash drive, and provides a green alternative to copiers.

The UT Arlington Library has for many years served as an important venue for visiting speakers and various lecture series, including the popular Focus On Faculty program that highlights award-winning UT Arlington faculty, and the Friends of the UT Arlington Library, who invite writers from the region to address the group. The Library also co-sponsors such events as the Women's History Month lectures and the One-Book program talks and brown-bag lunches. These programs are generally held in the Central Library sixth floor parlor or atrium. To learn about upcoming Library events, visit the university calendar at www.uta.edu/events/main.php then select Library from the drop down menu at "Select another calendar."

Additional library information may be obtained at any of the information or circulation desks of the three library locations. Regular library hours are posted, as are hours for semester breaks, holidays, summer terms, Winter Intersession, Summer Intersession, and other special circumstances. For more information, visit us on the Web at library.uta.edu/. Administration Office, Room 611, Central Library, Box 19497, Arlington, TX 76019, e-mail questions may be addressed to library-ref@uta.edu.

The School of Architecture

203 Architecture Bldg.Box 19108

Overview

The design disciplines - **Architecture, Interior Design, Landscape Architecture** - teach us to understand and to shape the space we live in: rooms, buildings, gardens, cities. These disciplines are old, among the first activities of civilization itself. They are also new, requiring advanced knowledge and skills to serve contemporary culture. The design disciplines operate at many levels of thought and concern. On one hand they are very practical, dealing with a host of concrete realities; on the other they are highly conceptual, having to do with meaning and society's highest aspirations.

The purpose of the School's undergraduate curriculum is to pursue professional studies within the context of a liberal education. This goal is a natural one for the design disciplines, drawn as they are from the arts, the sciences, and the humanities.

The School of Architecture offers programs leading to the following degrees:

- Bachelor of Science in Architecture
- Bachelor of Science in Interior Design
- Master of Architecture
- Master of Landscape Architecture

The four-year Bachelor of Science in Architecture degree is a pre-professional degree. It provides the basis for various career possibilities, including the professional degree of Master of Architecture or the Master of Landscape Architecture; these advanced degrees are normally awarded after two years of graduate study (refer to the graduate catalog for details). The four-year Bachelor of Science in Interior Design degree is an accredited professional degree.

The baccalaureate degree programs combine a core liberal arts curriculum with a structured sequence of courses in architecture and design. A large number of electives allows the student the flexibility to pursue special interests in the school and in the University.

All baccalaureate degree programs consist of two two-year segments: Basic Studies and Major Studies. The first two years (Basic Studies) is a foundation curriculum taken by all undergraduates at that level in the school. In addition to work in the arts and sciences, Basic Studies includes a series of lecture and studio courses which introduce the student to the concepts, history, skills, and vocabulary of design.

In the third and fourth years (Major Studies), the student concentrates in one of the design disciplines, taking courses and studios of a more advanced and professional nature. Those pursuing the Bachelor of Science in Architecture degree follow the architecture sequence. Candidates for the

Bachelor of Science in Interior Design take the professional courses required by that program.

The School of Architecture will assist each student in selecting the path most appropriate to his or her interests and abilities. Academic advising is provided for all students in the school.

Bachelor of Science in Architecture: A four-year program of studies comprising, with a later two-year graduate program, the six-year Master of Architecture curriculum. This sequence, called the 4 + 2 model, has been adopted by many major universities as the most effective way of combining liberal education with professional education. (See the Graduate Catalog for the Master of Architecture program, which is accredited by the National Architectural Accrediting Board.) The four-year undergraduate degree is not an accredited professional degree; the Master of Architecture is fully accredited. Below is the language from the National Architectural Accrediting Board explaining 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."

Bachelor of Science in Interior Design: A four-year program of studies, interdisciplinary with architecture, on the design of interior environments. Following the two-year Basic Studies sequence, the student completes two years of Major Studies, an intensive series of courses and studios on the theory, history, skill, and practice of interior design. The program leads to the professional degree in interior design, accredited by the Foundation for Interior Design Research (FIDER).

Master of Architecture: The Master of Architecture is an NAAB-accredited professional degree offered only at the graduate level. The Master of Architecture curriculum is coordinated with the Bachelor of Science in Architecture curriculum degree to form a six-year professional program.

Master of Landscape Architecture: Landscape Architecture is offered only at the graduate level and is accredited by the American Society of Landscape Architects.

Minor in History of Architecture: For students in disciplines requiring a minor, the School of Architecture offers a minor in History of Architecture. The school offers numerous courses from which to select the 18 hours required for a minor. ARCH 2303, 2304, 4305, 4308, 4309, 4310, 4315, 4316, 4317, 4318, and 4320.

Major Studies: Entrance Requirements

All entering students majoring in Architecture and Interior Design are admitted as Pre-Architecture and

Pre-Interior Design majors. As Pre-ARCH and Pre-INTD majors, students complete the 1st and 2nd Year Architecture courses in the course sequence while completing the Core Curriculum. Architecture and Interior Design students must request clearance for registration every semester.

Declaring a Major in Architecture or Interior Design: Students enrolling in the Major Studies' courses (3000/4000 level) within the School of Architecture must be declared Architecture or Interior Design majors. To declare a major, students must have completed the following requirements for admission to a degree program:

- Applicants must have a 2.8 cumulative GPA in all courses at UT Arlington as well as 2.8 GPA in all courses within the School of Architecture.
- Students must complete all the Basic Studies courses in Architecture.
- Students must complete the Core Curriculum as stated in the Degree Requirements for the B.S. in Architecture or Interior Design before qualifying to enroll in any 3000/4000 Architecture or Interior Design courses.
- Students fulfilling all requirements for an architecture or interior design major must notify the school to confirm enrollment in the major.

Student Personal Laptop Policy:
All declared Architecture and Interior Design majors admitted to the Third Year (Major Studies) are required to have a personal laptop computer configured to the specifications defined by the School of Architecture. Specifications may be found on the Architecture website: www.uta.edu/architecture/

Special Academic Requirements

GPA Requirements: Upon admission to the Major Studies, all declared majors must maintain a minimum GPA of 2.8 in both Architecture and in the cumulative GPA to continue in the upper level program to satisfy requirements for graduation.

Grade Requirements: A grade of C or higher must be earned in each School of Architecture course used for credit toward an undergraduate degree and minor offered by the school. A grade of C or higher must be earned in all required Math courses.

Repetition of Courses: Three attempts to achieve a satisfactory grade are permitted for each required course in the School of Architecture. Beyond that number of attempts, the student is denied access to the course in question, or to the sequence of courses for which it is requisite. Enrollment in the course for the time sufficient to receive a grade, including the grade W, is considered an attempt.

Transfer of Credit: The extent of credit toward degree requirements for academic work done elsewhere will be determined by the associate dean or undergraduate advisor. Students applying to transfer credits from studio courses taken elsewhere must present examples of that work for evaluation and placement.

Student Projects: The School of Architecture reserves the right to retain, copyright, use, exhibit, reproduce, and publish any work submitted for course credit. The student is encouraged to develop a portfolio of all work accomplished in advanced courses for future professional and academic uses.

Requirements for a Bachelor of Science Degree in Architecture

Architecture

1301, 1341, 2303, 2304, 2551, 2552, 3323, 3324, 3331, 3337, 3343, 3553, 3554, 4321, 4556, 4557.

English

Six hours of composition.

Literature

Three hours of English or modern languages literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing.

Political Science

Six hours covering U.S. and Texas constitutions.

History

Six hours of American history or three hours of American and three hours of Texas history.

Mathematics

Six hours-MATH 1324. Algebra and Trigonometry and MATH 1325. Analytic Geometry or approved advanced mathematics (MATH 1302 and MATH 1303 may be substituted for MATH 1324).

Natural Science

PHYS 1441, 1442.

Social/Cultural Studies

Three hours of designated courses in social or cultural anthropology, archaeology, social/political/cultural geography, economics, psychology, sociology, classical studies, or linguistics.

University Elective

Three hours selected from University course offerings and approved by the academic advisor.

Advanced Electives

24 hours to include three hours of advanced architectural history, three hours of advanced architectural theory and three hours of an advanced School of Architecture elective. The remaining 15 hours must be advanced and selected by the student with the advice, counsel, and approval of the designated undergraduate advisor for the option.

Total

128 hours, of which at least 36 hours must be 3000/4000 level.

Suggested Course Sequence

Freshman Year

First Semester: ARCH 1301 or ARCH 1341; ENGL 1301; POLS 2312; MATH 1324;

Social/Cultural Studies Elective, 3 hours-Total Credit 15 hours.

Second Semester: ARCH 1301 or ARCH 1341; ENGL 1302; POLS 2311; MATH 1325; University Elective, 3 hours; Liberal Arts Elective, 3 hours-Total Credit 18 hours.

Sophomore Year

First Semester: ARCH 2551; ARCH 2303; PHYS 1441; HIST 1311; Literature Elective, 3 hours-Total Credit 18 hours.

Second Semester: ARCH 2552; ARCH 2304; PHYS 1442; HIST 1312 -Total Credit 15 hours.

(Refer to catalog for Entrance Requirements to Major Studies.)

Junior Year

First Semester: ARCH 3553; ARCH 3343; ARCH 3323; Advanced Architecture Elective, 3 hours-Total Credit 14 hours.

Second Semester: ARCH 3554; ARCH 3337; ARCH 3324; ARCH 3331- Total Credit 14 hours.

Senior Year

(Students must have an approved degree plan prior to registration for this year.)

First Semester: ARCH 4556; ARCH 4321; Advanced ARCH History Elective, 3 hours; Advanced Electives, 6 hours-Total Credit 17 hours.

Second Semester: ARCH 4557; Advanced ARCH Theory Elective, 3 hours; Advanced Electives, 9 hours-Total Credit 17 hours.

Requirements for a Bachelor of Science Degree in Interior Design

Architecture

1301, 1341, 2303, 2304, 2551, 2552.

Interior Design

3305, 3321, 3322, 3323, 3329, 3343, 3345, 3553, 3555, 4332, 4345, 4393, 4368, 4369, 4395, 4562, 4563.

Art

Three hours of an art history, approved.

English

Six hours of composition.

Literature

Three hours of English or modern languages literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing.

Political Science

Six hours covering U.S. and Texas constitutions.

History

Six hours of American history or three hours of American and three hours of Texas history.

Mathematics

Six hours (MATH 1302. College Algebra and MATH 1303. Trigonometry) or approved advanced mathematics.

Natural Science

PHYS 1401, 1402.

Social/Cultural Studies

Three hours of designated courses in social or cultural anthropology, archaeology, social/political/cultural geography, economics, sociology, classical studies, or linguistics.

Advanced Elective

Three hours selected by the student with the advice, counsel, and approval of the designated Undergraduate Advisor.

Total

128 hours, of which at least 36 hours must be 3000/4000 level.

Suggested Course Sequence

Freshman Year

First Semester: ARCH 1301 or ARCH 1341; ENGL 1301; HIST 1311; MATH 1302; PHYS 1401-Total Credit 16 hours.

Second Semester: ARCH 1301 or ARCH 1341; ENGL 1302; HIST 1312; MATH 1303; PHYS 1402-Total Credit 16 hours.

Sophomore Year

First Semester: ARCH 2551; ARCH 2303; POLS 2311; Literature Elective, 3 hours; Social/Cultural Studies Elective, 3 hours-Total Credit 17 hours.

Second Semester: ARCH 2552; ARCH 2304; POLS 2312; Liberal Arts Elective, 3 hours; Art History Elective, 3 hours-Total Credit 17 hours.

(Refer to catalog for Entrance Requirements to Major Studies.)

Junior Year

First Semester: INTD 3553; INTD 3343; INTD 3321; INTD 3329; INTD 3305-Total Credit 17 hours.

Second Semester: INTD 3555; INTD 3345; INTD 3322; INTD 3323 -Total Credit 14 hours.

Senior Year

(Students must have an approved degree plan prior to registration for this year.)

First Semester: INTD 4562; INTD 4368; INTD 4345; INTD 4393; Advanced Elective, 3 hours-Total Credit 17 hours.

Second Semester: INTD 4563; INTD 4369; INTD 4332; INTD 4395 -Total Credit 14 hours.

Competence in Oral Presentations

Students obtaining a Bachelor of Science degree in Architecture demonstrate oral proficiency by taking and passing ARCH 2551, 2552, 3553, 3554, 4556, and 4557 or approved equivalents.

Competence in Computer Use

Students obtaining a Bachelor of Science degree in Architecture can demonstrate computer proficiency by:

- Taking and passing ENGL 1301 or ENGL 1302 at UT Arlington in a computer classroom environment or ENGL 3372, ENGL 3374, CSE 1301 (or equivalent), or any other class approved by the Undergraduate Assembly.
- Passing the University computer literacy examination.

School of Architecture Faculty

Dean

Professor Gatzke

Professors

Baum, Ferrier, Hamilton, Kuhner, McDermott, Mehta, Price

Associate Professors

Boswell, Gintole, Guy, Maruszczak, Youssefzadeh

Assistant Professors

Appleton, Bell, Boles, Dye, Holliday, Klahr, Kunkel, Marichal, Quevedo, Reeves

Senior Lecturers

James, Jones

Dean Emeritus

G. Wright

Professors Emeritus

C. Wright, McBride, Yardley

The College of Business Administration

Dean: Daniel D. Himarios, Ph.D.
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Overview

The Bachelor of Arts in Economics, Bachelor of Business Administration, Bachelor of Science in Accounting, Bachelor of Science in Economics, Bachelor of Science in Information Systems, Executive Master of Business Administration, Master of Arts in Economics, Master of Business Administration, Master of Professional Accounting, Master of Science in Accounting, Master of Science in Health Care Administration, Master of Science in Human Resource Management, Master of Science in Information Systems, Master of Science in Marketing Research, Master of Science in Quantitative Finance, Master of Science in Real Estate and Master of Science in Taxation at The University of Texas at Arlington are fully accredited by AACSB International-The Association to Advance Collegiate Schools of Business.

Philosophy

Teaching, research, and community service are the essential activities of the College of Business. All three activities are aimed at enhancing the college's scholarly environment and strengthening relationships with the business community. The emphasis on excellence in the performance of these cornerstone activities enables the college to offer an outstanding business education for students over a broad spectrum of interest, age, and experience.

To be of lasting value, education for business, like education generally, must develop in its students the ability to engage in critical thinking, to project the future, and to relate effectively to others. First-rate business schools are inhabiters of the ever-expanding intellectual frontier of the American business world. Their mission is to seek out and foresee the inevitable changes ahead and, on occasion, even bring them about. They must report findings, not only to students but also to the leaders of business practice. Then they must draw on all relevant knowledge, as well as all the modern processes of thought and analysis, that will help the students to understand, and business leaders to master, the problems of change. The College of Business strives to prepare the student for a lifetime career in professional management, and the heart of that profession is the making of managerial decisions in a world of change.

The college is dedicated to the development of graduates who possess not only the skill and knowledge requisite for success in business, but also the wisdom and understanding which will enable them to become productive citizens. The college's program seeks to provide a firm base of liberal arts education consistent with that of any other professional preparation, to strive for adequate breadth within its own curriculum, and to maintain a continuing, lively interchange with related fields. Effort is exerted to make the study of business a challenging intellectual adventure rather than a mere exercise in specialized techniques.

Computer Literacy and Oral Competency

Students majoring in business administration obtain competencies in computer literacy and oral presentation via required course work. They are required to take a computer course, INSY 2303, Introduction to M.I.S. and Data Processing. Students are also required to take an oral communication course, COMS 1301, Fundamentals of Speech, or COMS 2305, Business and Professional Communication.

Mission Statement

Consistent with the mission of the University, 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.

Objectives

Our mission will be fulfilled by achieving the following objectives:

- To discover and disseminate knowledge that, through its relevance and rigor, benefits our students, practitioners and other constituencies.
- To continue to develop and provide instructional programs that meet the needs of our students: part-time, full-time, employed and international.
- To maintain a rigorous and effective client-focused environment that capitalizes on our urban setting.
- To continually improve all our academic programs to effectively address the diversified needs of the Metroplex area.
- To further our community interaction by offering off-campus courses, distance education and professional development seminars.
- To enhance the visibility of the college and improve its financial strength through increased external funding.
- To provide advisory services to academic, professional and other organizations.

Programs

To attain these objectives, guidelines have been developed to provide minimum coverage of the basic areas of human knowledge and exposure to the fundamentals in each of the functional areas of business.

There are three major degree programs, each developed within the frame of reference described above. The first is the Bachelor of Business Administration Degree, with subject area concentrations in finance, information systems, management, marketing, operations management, real estate, or economics. A minor is not required or allowed for any B.B.A. The B.B.A. (Accounting) degree, while adhering to the basic philosophy outlined, permits a maximum 33 semester hour concentration in accounting. Thus, in addition to acquiring excellent preparation for a management career in industry, a student may also pursue professional objectives leading to a career in private, governmental, or public accounting. The B.B.A. in International Business is a dual concentration program requiring specific international business course work and 26 to 32 hours in one modern language (French, German, Russian, or Spanish). A B.S. degree in accounting is offered for students planning a career in professional accounting who also desire in-depth study in a related business discipline such as economics, finance, or information systems. This degree program permits a maximum 33 semester hour concentration in accounting and, depending on the area, 12 to 21 semester hours in a related business discipline. A B.S. degree in information systems is offered for the student planning a professional career in business information systems. A B.S. degree in economics is also offered for the benefit of the student planning a career as a professional economist; a minor is required for degree completion. The B.A. degree in economics is the traditional liberal arts degree, oriented toward careers in teaching and research, government, or business; a minor is required for degree completion.

Business Undergraduate Advising Center

107 Business Building - 817-272-3368 - www2.uta.edu/ugadvise

Each student in the College of Business has access to a professional academic advisor for educational and vocational guidance. The advising process is designed to assist students as they make important decisions

related to their academic progress at UT-Arlington and career goals in general.

Specifically, the purpose of advising is:

- To empower students to clarify and achieve their educational goals by providing timely and accurate information about degree requirements, as well as College and University policies and procedures.
- To provide every business student with the opportunity to develop a relationship with a knowledgeable advisor in order to obtain sound academic advising with a degree of continuity.
- To provide students with information about additional services, programs, and support systems available within the College and University as appropriate.

Ultimately, the student is responsible for seeking academic advice, making decisions regarding goals, meeting degree requirements, and enrolling in appropriate courses. The academic advisor is to provide assistance and help in these decisions. All students are responsible for understanding and complying with University and College policies and procedures.

The Advising Center is located on the first floor of the Business Building, Suite 107 and operates on an appointment basis. Please contact the Center by calling 817.272.3368 between the hours of 8:00 am and 5:00 pm, Monday through Friday.

Goolsby Leadership Academy

304 Business Building • 817-272-3085
• *www.uta.edu/goolsby/*
• *goolsbyacademy@uta.edu*

Faculty

Dr. David Mack, Director and Assistant Dean, College of Business

Dr. David Gray, Associate Dean, College of Business

Dr. James Campbell Quick, John and Judy Goolsby Distinguished Professor

Dr. Roger Meiners, John and Judy Goolsby Distinguished Professor

Dr. Peggy Swanson, John and Judy Goolsby Distinguished Professor

The Goolsby Leadership Academy was founded in 2003 with a gift of $2 million from an anonymous donor in honor of John and Judy Goolsby. John Goolsby is a 1964 graduate of the College of Business with a degree in accounting. Much of his executive career was spent as CEO of the Howard Hughes Corporation. There are three sets of Academy participants: students, faculty members, and executives. Each year the Academy selects qualified undergraduate students who take a series of specialized courses regarding different aspects of leadership and participate in special projects and field activities designed to give them real-world leadership experiences. Faculty associated with the Academy teach leadership courses and conduct leadership research. Executives mentor Goolsby students, provide field research opportunities for faculty scholarship, and support Academy leadership training programs.

Goolsby Fellows and Goolsby Associates are members of the Honors College. A sample

Honors degree plan is available from either the Honors advisors or the designated Goolsby College of Business advisor.

Course fee information is published in the online student Schedule of Classes at www.uta.edu/schedule. Please refer to this Web site for a detailed listing of specific course fees.

LSHP 4311. LEADER AS COMMUNICATOR (3-0) 3 hours credit. Helps students excel in written and oral communication skills. Assignments include writing short papers, making oral presentations (some videotaped), and learning to critique each other. This course is cross listed as HONR 4311. Prerequisite: admission to the Goolsby Leadership Academy or permission of either of the Goolsby Leadership Academy Directors.

LSHP 4313. SENIOR EXECUTIVE LEADERSHIP (3-0) 3 hour credit. Designed on a series of lectures by executives followed by round-table discussion with faculty member(s). This course exposes Goolsby Fellows to leading executives. This course is cross listed as HONR 4313. Prerequisite: admission to the Goolsby Leadership Academy or permission of either of the Goolsby Leadership Academy Directors.

LSHP 4315. EXECUTIVE INTERNSHIP (3-0) 3 hours credit. This internship experience places Goolsby Fellows in field settings with executives from the College's Advisory Council and other executive leaders in specialized areas for students. This course is cross listed as HONR 4315. Prerequisite: admission to the Goolsby Leadership Academy or permission of either of the Goolsby Leadership Academy Directors.

Fast Track Master's Degrees in Business

Fast Track Programs enable outstanding senior undergraduate Business students to satisfy degree requirements leading to select master's degrees in business while completing their undergraduate studies.

An undergraduate Business student will apply:

- within 30 hours of completing a bachelor's degree
- upon completion of at least 30 hours at UTA, achieving an overall UTA GPA of 3.2 or better
- with an overall GPA of 3.2 or better in all college courses (at all schools), and
- with a UTA Business GPA of 3.3 or better.

Additionally, a candidate must have completed 12 hours of specified undergraduate Fast Track foundation courses with a minimum GPA of 3.5 in these courses. These courses are mandatory and must be completed at UT Arlington. The foundation courses required for admission to the various Fast Track programs are:

MBA or MS-INSY or MS-HR

- ECON 3310 Microeconomics or ECON 3312 Macroeconomics (first completed at UTA)
- FINA 3313 Business Finance
- MANA 3318 Managing Organizational Behavior
- BSTAT 3321 Business Statistics I or BSTAT 3322 Business Statistics II (first completed at UTA)

MS-REAE

- ECON 3310 Microeconomics or ECON 3312 Macroeconomics (first completed at UTA)
- FINA 3313 Business Finance
- REAE 3325 Fundamentals of Real Estate
- BSTAT 3321 Business Statistics I or BSTAT 3322 Business Statistics II (first completed at UTA)

MA-ECON

- ECON 3310 Microeconomics
- ECON 3312 Macroeconomics
- FINA 3313 Business Finance
- BSTAT 3321 Business Statistics I or BSTAT 3322 Business Statistics II (first completed at UTA)

Once admitted, a student will be allowed to take select graduate courses that may be used to satisfy both bachelor's and master's degree requirements.

An undergraduate student who successfully completes the Fast Track graduate coursework with grades of B or better will graduate with the undergraduate degree will be automatically admitted to the Graduate School at that time. The student will not be required to take the Graduate Management Admissions Test (GMAT), will not have to complete the normal Graduate School application for admission, and will not have to pay the related application fee.

For more details about this program, please refer to the Graduate Catalog and/or a graduate MBA advisor.

Business Honors Program

The Business Honors Program (BHP) operates as a part of UT Arlington's Honors College. Its primary objective is to establish a cohesive community of exceptionally intelligent and motivated students who will pursue the study of business together in a stimulating learning environment. Participation in the BHP is open to students who maintain a total cumulative grade point average of 3.2 or higher. Students who complete the program successfully will receive a special citation on their diplomas. The University honors degree requirements are compatible with all College of Business degree programs.

Internship for Degree Credit

One approved internship can be used as an advanced business elective for eligible students. Students must be a declared business major, junior or senior standing, have an overall UT Arlington GPA of 2.5 or better, have 3 hours of advanced business electives available, and complete the approval forms before the appropriate semester deadline.

The internship must be related to the student's major and is graded on a pass/fail basis. No credit will be given for previous experience or activities. For specific course requirements, refer to the internship approval forms. If a change of major occurs, the internship no longer applies to the degree.

Admission Policy

Accounting/Economics/Finance/Information Systems/International Business-Modern Language/Management/Marketing/Operations Management/Real Estate Degree Programs (B.B.A., B.A. and B.S.)

Direct Admission Criteria

Applicants who have completed 30 or more hours of transferable college credit will be

directly admitted to a business major based on the following criteria:

- Students must meet all UT Arlington admission requirements and
- Students must have a grade point average of 3.25 or better for all college level credit earned.

In addition to meeting the criteria stated above, students must attend a Business Success Workshop. Students are notified about the workshop in writing.

Applicants Who Do Not Meet Direct Admission Criteria

Applicants who do not meet the criteria for direct admission stated above will be admitted as business-intended majors. Academic performance will be evaluated after twelve (12) hours of business course work at UT Arlington. To declare a major, a business-intended student must meet the following criteria:

- An overall grade point average of 2.25 at UT Arlington;
- A business grade point average of 2.50 at UT Arlington; and
- Completion of the CoB math requirement. (The CoB math requirement includes MATH 1302 or MATH 1315 and MATH 1316, or equivalent courses as transfer credits.)

College of Business Probation and Dismissal

If a student does not meet the above criteria after earning twelve (12) hours in business course work the student is on College of Business probation. The student may be allowed to continue as a business-intended major for the semester containing the eighteenth hour of business course work under an enrollment contract. Depending on the circumstances, a student on CoB probation may have restrictions on course load, course selection, and will be given specific course grade requirements. All business hours will be used to calculate a business grade point average for the CoB admission purposes.

Students who do not meet the requirements for declaring a business major after eighteen (18) hours of business course work or meet the requirements outlined in the enrollment contract will not be allowed to take additional business courses at UT Arlington. The student will be dismissed from the CoB and must choose a major other than business in order to remain enrolled at UT Arlington.

Degree Progress and Major Dismissal

Students who have been accepted to a business degree program must maintain satisfactory progress in their field of study (major). Declared business majors are subject to dismissal from a business degree program and will not be permitted to enroll for additional courses in that major if they:

- Receive a grade of D or F in more than one upper level major course, or
- Receive any combination of grades of D or F in two attempts of the same major course.

College of Business Graduation Requirements

In addition to meeting the credit hour and course requirements for a specific College

of Business degree program, the student must meet the following requirements:

- Be a declared business major;
- A minimum overall grade point average of 2.0;
- A minimum grade point average of 2.0 in all course work taken from the College of Business;
- A minimum grade point average of 2.0 for courses taken within the major/concentration area for those majors having a concentration (This requirement also applies to modern language course work for International Business degree programs);
- Students must complete at least 50 percent of their business course work in residence; and
- A grade of "C" or better must be earned in all major/concentration courses required for the degree.

Minors in Business for Non-Business Majors

The College of Business:

- Requires half of the course work for a minor in business be completed in residence at UT Arlington. For an 18-hour minor requirement, this would require a minimum of 9 hours of business course work at UT Arlington.
- Requires a grade of C or better in all minor requirement courses.
- Will not use vocational and technical courses (including WECM courses) toward any business minor.

Accounting

ACCT 2301
ACCT 2302*
ACCT 3311*
ACCT 33xx or 43xx*
ACCT 33xx or 43xx*
ACCT 33xx or 43xx*

Students must complete at least 9 hours of upper level accounting coursework at UT Arlington.

The following ACCT prefix courses may not be used to satisfy the minor requirements: ACCT 3304, Software Tools; ACCT 3309, Accounting for Managers; and ACCT 4380, Ethics for Accountants.

A minimum accounting GPA of 2.0 must be maintained for accounting classes completed at UT Arlington. ACCT 3304, 3309 or 4380 will NOT be included in the accounting GPA calculation.

Business Administration

Select 9 hours from:

ACCT 2301
ACCT 2302*
INSY 2303
ECON 2305
ECON 2306

Select 9 hours* Jr/Sr level from one area or from several areas:

ACCT
BCOM
BLAW
ECON
FINA
INSU
INSY
MANA
MARK
OPMA
REAE
BSTAT

Economics

ECON 2337 (optional)
ECON 2305
ECON 2306
ECON 3303*
ECON 3310*
ECON 3312*
ECON 33xx or 43xx*

Information Systems

INSY 2303
INSY 3300*
INSY 3304*
INSY 3305*
INSY 33xx or 43xx*
INSY 33xx or 43xx*

**Mandatory Prerequisites: Prerequisites MUST be met before enrollment in the course. A student should consider these when selecting courses to satisfy the minor requirement and when registering. For a complete list of prerequisites see the Undergraduate Catalog or the Business Undergraduate Advising Office.*

Requirements for a Bachelor of Business Administration Degree

The Bachelor of Business Administration Degree allows the student to choose options in Economics, Finance, Information Systems, Management, Marketing, Operations Management, and Real Estate. A minor is not required or allowed for the B.B.A. Courses in the various option fields are found in the appropriate departmental sections of the catalog. Operations Management courses are found in the Department of Information Systems and Operations Management. Real Estate courses are found in the Department of Finance and Real Estate.

(Economics, Finance, Information Systems, Management, Marketing, Operations Management, and Real Estate Options)

Students must meet all lower division requirements before enrolling for upper division courses. Specified prerequisites are designated for certain courses. Waiver of either of the above will require consent of the instructor and approval of the Director of Undergraduate Studies of the College of Business .

English

1301, 1302.

Literature

Three hours of English or modern and classical languages literature above the freshmen level.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts, or philosophy, or technical writing.

Political Science

2311, 2312.

History

1311, 1312.

Mathematics

1302 or 1315, and 1316.

Natural Science

Eight hours in single lab science (biology, chemistry, geology or physics).

Social/Cultural Studies

MANA 2302.

Fine Arts

Three hours from architecture, art, dance, music or theatre arts.

Oral Communication

COMS 1301 or COMS 2305.

Computer Literacy

INSY 2303.

Business Core

ACCT 2301 and 2302; BLAW 3311; ECON 2305 and 2306; FINA 3313; INSY 2303; MANA 3318, 4322; MARK 3321; OPMA 3306; BSTAT 3321.

Concentration and Electives

12 to 18 hours beyond the core requirement in one of the following areas of concentration: economics, finance, information systems, management, marketing, operations management, or real estate. Three to six hours of accounting elective and three to six hours of economics electives may be required. 12 to 24 hours of 3000/4000 level business electives selected from at least three areas of concentration excluding the primary area of concentration.

Total

122 hours.

Suggested Course Sequence

Freshman Year

First Semester: ENGL 1301; HIST 1311; Natural Science, 4 hours; MATH 1315; Speech, 3 hours-Total Credit 16 hours.

Second Semester: ENGL 1302; HIST 1312; Natural Science, 4 hours; MATH 1316; Fine Arts, 3 hours-Total Credit 16 hours.

Sophomore Year

First Semester: Literature, 3 hours; POLS 2311; ECON 2305; ACCT 2301; MANA 2302-Total Credit 15 hours.

Second Semester: Liberal Arts Elective, 3 hours; POLS 2312; ECON 2306; ACCT 2302; INSY 2303-Total Credit 15 hours.

Economics Option

Students concentrating in economics should be certain they meet the requirements specified previously under the heading "Requirements for a Bachelor of Business Administration Degree." Within the framework of these conditions, the economics concentration is limited to 21 hours in economics. This includes 15 hours of economics beyond the courses in principles of economics, ECON 2305 and 2306. ECON 3303, 3310, 3312, and 3318 are required. A three-hour economics elective is also required. The remainder of the courses to meet degree requirements should be selected with the advice of an academic advisor.

Suggested Course Sequence

Junior Year

First Semester: ECON 3303; ECON 3310; MARK 3321; BLAW 3311; Advanced Business Elective, 3 hours-Total Credit 15 hours.

Second Semester: ECON 3312; FINA 3313; MANA 3318; BSTAT 3321; Advanced Business Electives, 3 hours-Total Credit 15 hours.

Senior Year

First Semester: Advanced Business Electives, 9 hours; ECON 3318, OPMA 3306-Total Credit 15 hours.

Second Semester: MANA 4322; Economics Elective, 3 hours; Advanced Business Elective, 9 hours-Total Credit 15 hours.

Finance Option

Students concentrating in finance should be certain they meet the requirements specified previously under the heading "Requirements for a Bachelor of Business Administration Degree." Within the framework of these conditions, the finance concentration student is limited to a maximum of 21 finance hours, to include three to nine hours of finance courses beyond FINA 3313, 3315, 3317, and 4315, which are required.

The student is also required to take ACCT 3311 and three hours of accounting at the 3000 or 4000 level. Other minimum requirements are six hours of economics. The remainder of the courses to meet degree requirements should be selected with the advice of an academic advisor. These courses may include insurance, business law, and real estate. It is recommended that students planning careers in financial institutions take ACCT 3312 and ECON 3303. Following is an outlined upper-level program, detailing required and suggested courses for finance students who choose a specific area of study. All finance students MUST counsel with the finance advisor; it is best to do this no later than in the first semester of the junior year.

Suggested Course Sequence

Junior Year

First Semester: FINA 3313; BLAW 3311; BSTAT 3321; MANA 3318; ACCT 3311-Total Credit 15 hours.

Second Semester: FINA 3315; FINA 3317; MARK 3321; OPMA 3306; Accounting Elective, 3 hours-Total Credit 15 hours.

Senior Year

First Semester: MANA 4322; Finance, 3 hours; Finance or Advanced Business Elective*, 6 hours; Economics Elective, 3 hours-Total Credit 15 hours.

Second Semester: FINA 4315; Advanced Business Electives*, 6 hours; Outside Elective or Advanced Business Elective, 3 hours; Economics Elective, 3 hours-Total Credit 15 hours.

*Suggested advanced business electives: BLAW 3312; INSU 4329; REAE 3325, 4319, 4321; INSY 3305; ACCT 3311, 3312.

Career Options in Finance

Finance is the branch of business concerned with management of money. The specific nature of the money management function depends to some extent on the type of organization. Based on similarity of the finance function, finance is generally

classified into three areas: corporate finance, investments and securities, and financial institutions. Career opportunities may be available in each of these areas. A brief description of each area along with some courses applicable to each is provided below. A faculty advisor should be consulted before making final decisions relative to a degree program.

Financial Institutions: Commercial banks, savings and loan associations, credit unions, mutual funds, pension funds, finance companies, and insurance companies. Also, various governmental bodies that regulate financial institutions are included.

Investments and Securities: Firms such as investment banks, stockbrokers, institutional investors, and investment advisory services.

Corporate Finance: Manufacturing firms, wholesalers, retailers, and firms engaged in providing all types of non-financial services.

Information Systems Option

Students concentrating in information systems should be certain they meet the requirements specified previously under the heading Requirements for a Bachelor of Business Administration Degree. Within the framework of these conditions, a student is limited to a maximum of 21 hours in each of the concentration areas. For a concentration in information systems, a student would include 18 hours of information systems beyond INSY 2303. INSY 3300, 3303, 3304 and 3305 are required.

The student concentrating in information systems is encouraged to take a computer science course as an outside elective. Required information systems electives and advanced business electives should be selected with the advice of an academic advisor.

Suggested Course Sequence

Junior Year

First Semester: INSY 3300; INSY 3303; Advanced Business Elective, 3 hours; MANA 3318; BSTAT 3321-Total Credit 15 hours.

Second Semester: INSY 3304; OPMA 3306; BLAW 3311; FINA 3313; MARK 3321-Total Credit 15 hours.

Senior Year

First Semester: INSY 3305; INSY Elective, 3 hours; Advanced Business Electives, 9 hours-Total Credit 15 hours.

Second Semester: INSY Elective, 3 hours; Outside Electives or Advanced Business Electives, 6 hours; MANA 4322; Advanced Business Elective, 3 hours-Total Credit 15 hours.

Management Option

Students concentrating in management should be certain they meet the requirements specified previously under the heading Requirements for a Bachelor of Business Administration Degree. Within the framework of these conditions, a student is limited to a maximum of 21 hours in each of the concentration areas. For a concentration in management, a student would include 12 to 15 hours of management beyond MANA 3318. MANA 3319 and 3320 are required. The balance of

up to 9 hours of concentration may be selected from among the remaining management offerings.

Other required courses include accounting, three hours, and economics, six hours. The remainder of the courses to meet degree requirements should be selected with the advice of an academic advisor.

Suggested Course Sequence

Junior Year

First Semester: MANA 3318, 3319; BLAW 3311; BSTAT 3321; MARK 3321-Total Credit 15 hours.

Second Semester: MANA 3320; Management Elective, 3 hours; OPMA 3306; FINA 3313; Advanced Business Elective, 3 hours-Total Credit 15 hours.

Senior Year

First Semester: Management Elective, 3 hours; Management or Advanced Business Elective, 3 hours; Advanced Business Electives, 6 hours; Economics Elective, 3 hours-Total Credit 15 hours.

Second Semester: MANA 4322; Accounting Elective, 3 hours; Advanced Business Electives, 9 hours-Total Credit 15 hours.

Marketing Option

Students concentrating in marketing should be certain they meet the requirements specified previously under the heading Requirements for a Bachelor of Business Administration Degree. Within the framework of these conditions, a student is limited to a maximum of 21 hours in the concentration area. For a student concentrating in marketing, this would include 18 hours in marketing beyond MARK 3321. MARK 3324, MARK 4311 and MARK 4322 are required. The balance of nine hours of concentration may be selected from the remaining marketing offerings.

The student concentrating in marketing is also required to take BCOM 3360. Other required advanced electives include accounting, three hours, and economics, three hours. The remainder of the courses to meet degree requirements should be selected with the advice of an academic advisor.

Suggested Course Sequence

Junior Year

First Semester: MANA 3318; Accounting Elective, 3 hours; BLAW 3311; BSTAT 3321; MARK 3321-Total Credit 15 hours.

Second Semester: Marketing Elective, 3 hours; MARK 3324; OPMA 3306; FINA 3313; BCOM 3360-Total Credit 15 hours.

Senior Year

First Semester: MARK 4311; Marketing Electives, 6 hours; Advanced Business Electives, 6 hours-Total Credit 15 hours.

Second Semester: MARK 4322; MANA 4322; Outside Elective or Advanced Business Elective, 3 hours; Advanced Business Elective, 3 hours; Economics Elective, 3 hours-Total Credit 15 hours.

Operations Management Option

Students concentrating in operations management should be certain they meet the requirements specified previously under the heading Requirements for a Bachelor of Business Administration Degree. Within the framework of these conditions, a student is limited to a maximum of 21 hours in the concentration area. For a concentration in operations management, the student would include 15 to 18 hours of operations management beyond OPMA 3306. OPMA 3308, 3310, 4302, 4307, and 4309 are required. The balance of up to three hours of concentration may be selected from the remaining OPMA offerings. The student concentrating in operations management is also required to take BSTAT 3322. Other required business electives should be selected from ACCT 3309 or 4302, ACCT 4304, ECON 3310, FINA 4320, MANA 3320, MANA 4320, MARK 4303 and MARK 4334.

Suggested Course Sequence

Junior Year

First Semester: OPMA 3306; OPMA 3310; BSTAT 3321; MANA 3318; Accounting Elective, 3 hours-Total Credit 15 hours.

Second Semester: OPMA 3308; BLAW 3311; BSTAT 3322; MARK 3321; FINA 3313-Total Credit 15 hours.

Senior Year

First Semester: OPMA 4302; OPMA or Advanced Business Elective, 3 hours; Advanced Business Electives, 9 hours-Total Credit 15 hours.

Second Semester: OPMA 4307 and 4309; MANA 4322; Outside Electives or Advanced Business Electives, 6 hours-Total Credit 15 hours.

Real Estate Option

Students concentrating in real estate should be certain they meet the requirements specified previously under the heading Requirements for a Bachelor of Business Administration Degree. Within the framework of these conditions, a student is limited to a maximum of 21 hours in the concentration area. For a concentration in real estate, a student would include 12 to 15 hours of real estate beyond REAE 3325. REAE 3325, REAE 4319, and REAE 4334 are required. The remaining six to nine hours of real estate courses may be selected from the courses listed in the Real Estate section. The remainder of the courses to meet degree requirements should be selected with the advice of an academic advisor.

A student desiring a Real Estate option must complete 15 semester hours of courses bearing a Real Estate prefix (REAE). BLAW 3314 is required. Other required courses: accounting, three hours; economics, six hours.

Suggested Course Sequence

Junior Year

First Semester: MANA 3318; BSTAT 3321; FINA 3313; BLAW 3311; REAE 3325-Total Credit 15 hours.

Second Semester: MARK 3321; OPMA 3306; Accounting Elective, 3 hours; REAE 4319; BLAW 3314-Total Credit 15 hours.

Senior Year

First Semester: Real Estate Electives, 6 hours; Economics Elective, 3 hours; Real Estate or Advanced Business Elective*, 3 hours; Advanced Business Elective*, 3 hours-Total Credit 15 hours.

Second Semester: REAE 4334; MANA 4322; Economics Elective, 3 hours; Outside Elective or Advanced Business Elective*, 3 hours; Advanced Business Elective*, 3 hours-Total Credit 15 hours.

*Suggested advanced business electives: ACCT 3315, 4301; ECON 4325; FINA 3315, 3317, 4320, 4351; MARK 4311; INSU 4329, 4330.

Requirements for a Bachelor of Business Administration Degree

(International Business/Modern Language Option)

Students must meet all lower division requirements before enrolling for upper division courses. Specified prerequisites are designated for certain courses. Waiver of either of the above will require consent of the instructor and approval of the Director of Undergraduate Studies of the College of Business .

English

1301, 1302.

Literature

Three hours of modern language literature above the freshman level.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts, or philosophy, or technical writing.

History

1311, 1312.

Political Science

2311, 2312.

Mathematics

1302 or 1315 and 1316.

Social/Cultural Studies

MANA 2302.

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Oral Communication

COMS 1301 or COMS 2305.

Natural Science

Eight hours in single lab science (biology, chemistry, geology or physics).

Business Core

ACCT 2301, 2302; ECON 2305, 2306; FINA 3313; INSY 2303; MANA 3318, 4322; MARK 3321; BSTAT 3321.

International Business

BLAW 4310; ECON 4306 or 4321 or 4322; FINA 4324; MANA 4321; MARK 4325.

Modern Language

26 hours beyond all other requirements in one of the following areas: French, German, Russian, or Spanish. See modern language options for specific courses.

Electives

12 hours of upper level, advisor approved electives. (Students are encouraged to include six hours of degree specific language in this area.)

Total

130 hours.

Students are strongly encouraged to study abroad. The College of Business, the Department of Modern Languages, and the International Office currently work together in assisting student participation in existing exchange programs. Furthermore, the University will continue to develop exchange agreements with other recognized international universities.

Modern Language Options

French: Students concentrating in International Business/French should be certain they meet the requirements specified previously under the heading Requirements for a Bachelor of Business Administration Degree. Within the framework of these conditions, a student must complete FREN 1441, 1442*, 2313, 2314, 3315, 4314, 4334, and 4335.

German: Students concentrating in International Business/German should be certain they meet the requirements specified previously under the heading Requirements for a Bachelor of Business Administration Degree. Within the framework of these conditions, a student must complete GERM 1441, 1442*, 2313, 2314, 3313, 3314, 4334, and 4335.

Russian: Students concentrating in International Business/Russian should be certain they meet the requirements specified previously under the heading Requirements for a Bachelor of Business Administration Degree. Within the framework of these conditions, a student must complete RUSS 1441, 1442*, 2313, 2314, 3333, 4362, three hours from RUSS 3322 or 3323 or 4322 or 4323, and three hours of 3000/4000 level electives.

Spanish: Students concentrating in International Business/Spanish should be certain they meet the requirements specified previously under the heading Requirements for a Bachelor of Business Administration Degree. Within the framework of these conditions, a student must complete SPAN 1441, 1442*, 2313, 2314, 3311 or 3312, 3314, 4334, and 4335. (Non-heritage speakers should plan to take 3303 as an advanced business elective. Heritage speakers should plan to take 3304 and 3305 in place of 3303 and 3314.)

**Students will be placed in appropriate language level upon completion of a written and/or a verbal competency exam administered by the Modern Language Department.*

The Department of Accounting

409 Business Bldg. · Box 19468 · 817-272-3481
www.uta.edu/accounting
· accounting@uta.edu

Student Advising: 107 Business Bldg. · Box 19366 · 817-272-3368
www2.uta.edu/ugadvise

Careers in Accounting

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. Upward career mobility is outstanding.

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.

Mission of the Department

The mission of the Department of Accounting is to: (1) prepare students from diverse backgrounds for careers in the accounting profession, (2) create and disseminate knowledge of accounting, and (3) provide service to the University and accounting profession.

Overview of Degree Programs

To support its mission, the Department of Accounting offers two undergraduate degree programs: the Bachelor of Business Administration with a major in accounting and the Bachelor of Science with a major in accounting. Both degree programs provide accounting and business knowledge sufficient to enable the pursuit of professional opportunities in government, industry, and public practice. The Bachelor of Business Administration degree is intended for those individuals who seek a broader education while the Bachelor of Science degree is appropriate for individuals who wish to complete significant course work in a related business discipline such as finance, economics, or information systems.

The Department of Accounting also offers a Professional Program in Accounting (PPIA) for students who wish to pursue both a bachelor's and master's degree in accounting. Students accepted into the PPIA program are generally required to complete fewer courses to earn both degrees than non-participants.

Accreditation

The Department of Accounting is fully accredited by the AACSB-The Association to Advance Collegiate Schools of Business. The department is also a member of the Federation of Schools of Accountancy.

Course Requirements

Students must meet all lower division requirements before enrolling for upper division courses. Specified prerequisites are designated for certain courses. Waiver of

either of the above will require consent of the instructor and approval of the Director of Undergraduate Studies of the College of Business .

Transfer Credit

Acceptance of transfer credit for accounting courses will generally be limited to those courses taught in the freshman and sophomore years in the Department of Accounting at UT Arlington. Junior and senior level accounting courses taught at UT Arlington, but completed at another institution, must be validated if they are to be used to fulfill degree requirements for an undergraduate degree in accounting. Courses are ordinarily validated from an examination of course materials and acceptable performance on a validation examination. Students must earn a grade of C or higher on the validation examination for transfer credit. Information about the validation examination can be obtained from the undergraduate advisor.

Entrance Examination for ACCT 3311 (Intermediate I) (Intermediate I)

A student's performance in ACCT 3311 (Intermediate I) is often viewed as an important indicator of aptitude for success in the accounting profession. To help ensure that each student enrolling in ACCT 3311 has the preparation to succeed, student must complete an entrance examination prior to enrolling in ACCT 3311. Details regarding this entrance examination may be obtained on the departmental Web site.

Degree Progress and Major Dismissal

Students who have been admitted to an accounting degree program must maintain satisfactory progress in their field of study. Declared accounting majors are subject to dismissal from accounting degree programs and will not be permitted to continue to enroll in accounting courses at UT Arlington if they:

- Recieve a grade of D or F in more than two upper level accounting courses, or
- Recieve a combination of grades of D or F on two attempts of the same accounting course.

Graduation Requirements

In addition to requirements imposed by the University and College of Business, students must earn a grade of C or higher in each accounting course presented to satisfy the requirements for a degree with a major in accounting.

Requirements for a Bachelor of Business Administration Degree (Accounting Option)

English

1301 and 1302.

Literature

Three hours above the freshman level.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of

Liberal Arts, or fine arts, or philosophy, or technical writing. BCOM 3360 is recommended to satisfy this requirement.

Political Science

2311, 2312.

History

1311, 1312.

Mathematics

1302 or 1315, and 1316.

Natural Science

Eight hours in single lab science (biology, chemistry, geology, or physics).

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Social/Cultural Studies

MANA 2302.

Oral Communication

COMS 1301 or 2305.

Computer Literacy

INSY 2303.

Business Statistics

3321.

Operations Management

3306.

Business Law

3311, 3312.

Marketing

3321.

Finance

3313.

Management

3318, 4322.

Economics

2305, 2306, and three hours of advanced economics electives.

Accounting

2301, 2302, 3303, 3311, 3312, 3315, 4302, 4318, and six hours of advanced accounting electives. All electives must be selected with the approval of the accounting advisor.

Business Electives

Nine hours of advanced business, management, marketing, finance, information systems, economics, operations management, or accounting electives of which not more than three hours may be in accounting. All electives must be selected with the approval of the accounting advisor. ACCT 3304 and ACCT 4380 may be used as advanced business electives only. If completed, the grades earned in ACCT 3304 and ACCT 4380 will not be used in calculating the overall accounting grade point average.

Total

122 semester hours.

Suggested Course Sequence

Freshman Year

First Semester: ENGL 1301; HIST 1311; Natural Science, 4 hours; MATH 1302 or 1315; COMS 1301 or 2305-Total Credit 16 hours.

Second Semester: ENGL 1302; HIST 1312; Natural Science, 4 hours; MATH 1316; Fine Arts, 3 hours-Total Credit 16 hours.

Sophomore Year

First Semester: Literature, 3 hours; POLS 2311; ECON 2305; ACCT 2301; INSY 2303-Total Credit 15 hours.

Second Semester: Liberal Arts Elective, 3 hours; POLS 2312; ECON 2306; ACCT 2302; MANA 2302-Total Credit 15 hours.

Junior Year

First Semester: ACCT 3303; ACCT 3311; FINA 3313; Advanced Economics Elective, 3 hours; Advanced Business Elective, 3 hours-Total Credit 15 hours.

Second Semester: ACCT 3312; ACCT 3315; MARK 3321; BSTAT 3321; MANA 3318-Total Credit 15 hours.

Senior Year

First Semester: ACCT 4302; ACCT 4318; BLAW 3311; OPMA 3306; Accounting Elective, 3 hours-Total Credit 15 hours.

Second Semester: Advanced Accounting Elective, 3 hours; BLAW 3312; Business Electives, 6 hours; MANA 4322-Total Credit 15 hours.

Requirements for a Bachelor of Science Degree in Accounting

English

1301 and 1302.

Literature

Three hours above the freshman level.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts, or philosophy, or technical writing. BCOM 3360 is recommended to satisfy this requirement.

Political Science

2311 and 2312.

History

1311 and 1312.

Mathematics

1302 or 1315, and 1316.

Natural Science

Eight hours in a single lab science (biology, chemistry, geology, or physics).

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Social/Cultural Studies

Three hours from courses approved by the University as satisfying this requirement. Economics 2305 is recommended to satisfy this requirement.

Oral Communication

COMS 1301 or 2305.

Computer Literacy

INSY 2303.

Outside Electives

Sufficient to give the total number of hours required for the degree.

Business Statistics

3321.

Business Law

3311 and 3312.

Marketing

3321.

Finance

3313.

Management

3318, 4322.

Economics

2305, 2306, and a three hour advanced economics elective.

Accounting

2301, 2302, 3303, 3311, 3312, 3315, 4302, 4318, and six hours of advanced accounting electives from the following: 4301, 4311, and 4325.

Business Electives

Twelve hours of advanced business electives. These twelve hours may include no more than three hours of advanced accounting electives. All electives must be selected with the approval of the accounting advisor. ACCT 3304 and ACCT 4380 may be used as advanced business electives only. If completed, the grades earned in ACCT 3304 and ACCT 4380 will not be used in calculating the overall accounting grade point average.

Total

122 semester hours.

Suggested Course Sequence

Freshman Year

First Semester: ENGL 1301; HIST 1311; Natural Science, 4 hours; MATH 1302 or 1315; COMS 1301 or 2305-Total Credit 16 hours

Second Semester: ENGL 1302; HIST 1312; Natural Science, 4 hours; MATH 1316; Fine Arts, 3 hours-Total Credit 16 hours

Sophomore Year

First Semester: Literature, 3 hours; POLS 2311; ECON 2305; ACCT 2301; INSY 2303-Total Credit 15 hours

Second Semester: Liberal Arts Elective, 3 hours; POLS 2312; ECON 2306; ACCT 2302; Social/Cultural Studies*, 3 hours-Total Credit 15 hours

Junior Year

First Semester: ACCT 3303; ACCT 3311; FINA 3313; Advanced Economics Elective, 3 hours; Advanced Business Elective, 3 hours-Total Credit 15 hours.

Second Semester: ACCT 3312; ACCT 3315; BSTAT 3321; MANA 3318; Advanced Business Elective, 3 hours-Total Credit 15 hours.

Senior Year

First Semester: ACCT 4302; ACCT 4318; BLAW 3311; MARK 3321; Advanced Business Elective; 3 hours-Total Credit 15 hours.

Second Semester: Advanced Accounting Electives, selected from ACCT 4301, ACCT 4311, ACCT 4325, 6 hours; BLAW 3312; MANA 4322; Advanced Business Elective, 3 hours-Total Credit 15 hours.

*If ECON 2305 is used to satisfy both three hours of the economics requirement and the Social/Cultural Studies requirement, then the program of work will include three hours of outside electives.

Professional Program in Accounting

This program emphasizes preparation for a career as a professional accountant, including preparation for the Certified Public Accountant designation. Most states, including Texas, require completion of at least 150 semester hours of college study of which at least 36 semester hours must be in accounting for an individual to be licensed as a Certified Public Accountant. The Professional Program in Accounting is designed to fulfill these requirements and allow the simultaneous granting of a bachelor's degree and a master's degree. Students accepted into the PPIA program are generally to complete fewer courses to earn both degree than non-participants.

During the last semester of the junior year, interested persons should consult with the graduate accounting advisor (graduate.accounting.advisor@uta.edu) and apply for admission to the professional program. Formal admission to the program will occur during the first semester of the senior year (provided the student has completed at least 90 semester hours of the designated course work, and otherwise meets program admission requirements). Students admitted to the program will complete a plan of study that results in fulfillment of requirements for the bachelor's degree (excluding certain undergraduate course work that is waived) and sufficient additional graduate course work to fulfill the requirements for the Master of Science in Accounting degree or the Master of Science in Taxation degree.

Provided certain conditions are met, students may begin to earn graduate course credits before completing all of the undergraduate course requirements. Interested persons should obtain a Graduate Catalog and consult with the graduate accounting advisor (graduate.accounting.advisor@uta.edu) for further information on the Professional Program in Accounting option.

Accounting Faculty

Chair

Associate Professor Subramaniam

Professors

Hall, Taylor

Associate Professors

Ho, Mark, McConnell, Pierce, Subramaniam, Tsay

Assistant Professors

Brewster, Efendi, Rasmussen, Winterbotham

Lecturers

Andrews, Bitenc, Brown

Adjunct Assistant Professors

Henderson

Professors Emeritus

Ross, Witt

The Department of Economics

309 Business Bldg. · Box 19479 · 817-272-3061
economics.uta.edu

Overview

Students who plan to earn a degree in economics in one of the specialized fields listed below should consider the following suggestions as to their choice of elective economics courses:

- Those planning to do **graduate work** in economics should include two semesters of calculus, as well as linear algebra in their program. Additional math courses are encouraged and should be selected with assistance from the Economics Department's graduate advisor.
- Those planning to apply for **law school** admission should include Law and Economics (ECON 3305) and Economics of Public Policies (ECON 3335) among their economics electives.
- Those planning to pursue careers in the **health sector** should include Economics of Health (ECON 3301) and Economics for Managers (ECON 4311) among their economics electives.
- Those planning to work as an **economic analyst** should include Industrial Organization and Public Policy (ECON 3313), and Economics for Managers (ECON 4311) among their economics electives.

Requirements for a Bachelor of Science Degree in Economics

Students must have completed ECON 2305 and 2306 before enrolling in certain upper-level economics courses. Specified prerequisites are designated for certain courses. Waiver of either of the above will require consent of the instructor and approval of the Director of Undergraduate Studies of the College of Business.

English

1301, 1302.

Literature

Three hours of English or modern and classical languages literature above the freshman level.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts, or philosophy, or technical writing.

Political Science

2311, 2312.

History

1311, 1312.

Mathematics

1302, 1315 or 1325, and 1316 or 1426.

Natural Science

Eight hours in single lab science (biology, chemistry, geology or physics).

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Oral Communication

COMS 1301 or 2305.

Social/Cultural Studies

Six hours. MANA 2302 may be used in partial satisfaction of this requirement.

Computer Literacy and Statistics

INSY 2303, BSTAT 3321.

Accounting and Finance

ACCT 2301, 2302, and three hours ACCT 3000/4000 level. FINA 3313 or ACCT 3000/4000 level.

Major

ECON 2305, 2306, 3310, 3312, and 3318, plus 15 additional hours of 3000/4000 level economics, with a minimum of three hours at the 4000 level. Total hours in economics may not exceed 30.

Minor

18 hours, at least six of which shall be 3000/4000 level. (The six hours in statistics and information systems and the 12 hours in accounting and finance may be used as a minor in business administration.)

Electives

Three hours outside the College of Business or Advanced Business elective. (May not be an Economics course)

Other electives

Sufficient to give the total number of hours required for the degree.

Total

122 hours, at least 39 of which must be 3000/4000 level.

Suggested Course Sequence

Freshman Year

First Semester: ENGL 1301; MATH 1302 or 1315 or 1325; Natural Science, 4 hours; Fine Arts, 3 hours; HIST 1311-Total Credit 16 hours.

Second Semester: ENGL 1302; MATH 1316 or 1426; Natural Science, 4 hours; Social Science, 3 hours; HIST 1312-Total Credit 16 hours.

Sophomore Year

First Semester: Literature, 3 hours; POLS 2311; Social Science elective, 3 hours; ECON 2305; ACCT 2301-Total Credit 15 hours.

Second Semester: Liberal Arts elective, 3 hours; POLS 2312; INSY 2303; ECON 2306; ACCT 2302-Total Credit 15 hours.

Junior Year

First Semester: ECON 3310; ACCT elective, 3 hours; ECON elective, 3 hours; Minor, 3 hours; COMS 1301 or 2305-Total Credit 15 hours.

Second Semester: ECON 3312; BSTAT 3321; ACCT elective, 3 hours, or FINA 3313; Minor, 6 hours-Total Credit 15 hours.

Senior Year

First Semester: ECON 3318; ECON elective, 3 hours; ECON elective (4000 level), 3 hours; Minor, 6 hours-Total Credit 15 hours.

Second Semester: ECON electives, 6 hours; Outside or Advanced Business elective, 3 hours; Minor, 3 hours; Other elective, 3 hours-Total Credit 15 hours.

Requirements for a Bachelor of Arts Degree in Economics

Students must have completed ECON 2305 and 2306 before enrolling in certain upper-level economics courses. Specified prerequisites are designated for certain courses. Waiver of either of the above will require consent of the instructor and approval of the Director of Undergraduate Studies of the College of Business.

English

1301, 1302.

Literature

Three hours of English or modern and classical languages literature above the freshman level.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts, or philosophy, or technical writing.

Modern and Classical Languages

1441, 1442, 2313, and 2314.

Political Science

2311, 2312.

History

1311, 1312.

Mathematics

1302, 1315 or 1325, and 1316 or 1426.

Computer Literacy and Statistics

INSY 2303, BSTAT 3321.

Professional Communication

BCOM 3360

Natural Science

Eight hours in single lab science (biology, chemistry, geology or physics).

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Oral Communication

COMS 1301 or 2305.

Electives

Six hours outside the College of Business or Advanced Business electives. (May not be an Economics course)

Other electives

Sufficient to give the total number of hours required for the degree.

Major

30 hours in economics, including ECON 2305, 2306, 3310, 3312, and 3318, plus 15 additional hours of 3000/4000 level economics, with a minimum of three hours of economics at the 4000 level. Total hours in economics may not exceed 30.

Minor

18 hours, at least six of which shall be 3000/4000 level.

Total

121 hours, at least 33 of which must be 3000/4000 level.

Suggested Course Sequence

Freshman Year

First Semester: ENGL 1301; Modern and Classical Languages 1441; MATH 1302 or 1315 or 1325; Natural Science, 4 hours; HIST 1311-Total Credit 17 hours.

Second Semester: ENGL 1302; Modern and Classical Languages 1442; MATH 1316 or 1426; Natural Science, 4 hours; HIST 1312-Total Credit 17 hours.

Sophomore Year

First Semester: Literature, 3 hours; Modern and Classical Languages 2313; POLS 2311; ECON 2305; Fine Arts, 3 hours-Total Credit 15 hours.

Second Semester: Liberal Arts elective, 3 hours; Modern and Classical Languages 2314; INSY 2303; ECON 2306; POLS 2312-Total Credit 15 hours.

Junior Year

First Semester: ECON 3310; COMS 1301 or 2305; Minor, 6 hours; Outside or Advanced Business elective, 3 hours-Total Credit 15 hours.

Second Semester: ECON 3312; BSTAT 3321; Minor, 3 hours; BCOM 3360-Total Credit 12 hours.

Senior Year

First Semester: ECON 3318; ECON electives, 6 hours; Minor, 6 hours-Total Credit 15 hours.

Second Semester: ECON electives, 6 hours; ECON elective (4000 level), 3 hours; Minor,

3 hours; Outside or Advanced Business elective, 3 hours -Total Credit 15 hours.

Economics Faculty

Chair

Professor Roger E. Meiners

Professors

Amacher, Crowder, D. Himarios, Meiners

Associate Professors

Ward

Assistant Professors

Choi, DeSimone, Koc, Papanyan, Smallwood, Spivey, Yasar

Senior Lecturer

J. Himarios, Lind, Wunder

Lecturers

Kelly, Liggett, Wehr

Professors Emeritus

Carney, Hayashi

The Department of Finance and Real Estate

434 Business Bldg. · Box 19449 · 817-272-3705
www.uta.edu/finance

Requirements for a Bachelor of Business Administration Degree (Finance and Real Estate Options)

See the College of Business section of the catalog for specific degree requirements.

Finance and Real Estate Faculty

Chair

Professor Diltz

Professors

Apilado, Panton, Swanson

Associate Professor

Sarkar, Hansz

Assistant Professors

Gallo, Hayunga, Sabherwal, Shi, Yong

Senior Lecturer

Dowdy, Sparvero

Lecturers

Boykin, Schwemer

Adjunct Assistant Professor

Lowrance

Professor Emeritus

Cantwell

The Department of Management

209 Business Bldg. · Box 19467 · 817-272-3166
management.uta.edu

Requirements for a Bachelor of Business Administration Degree (Management Option)

See the College of Business section of the catalog for specific degree requirements.

Management Track Options are suggestive; other course sets may be chosen for use by Management students.

Human Resources Management/Organizational Behavior

Core Track Courses

MANA 3319. Management Process Theory
MANA 3320. Human Resource Management
MANA 4320. Labor Relations
MANA 4328. Human Resources Staffing and Performance Management
MANA 4342. Compensation and Benefits Management
MANA 4343. Training and Development

Recommended Advanced Management and Business Electives

Students are limited to 12 hours of management beyond MANA 3318, MANA 3319, MANA 3320.

MANA 4321. International Management
MANA 4326. Diversity in Organizations
MANA 4330. Team Management
MANA 4341. Negotiations and Conflict Resolution
MANA 4325. Leadership in Organizations

International Management Track of International Business/Modern Language Option

See requirements for International Business/Modern Language Option.

Core Track Courses

MANA 4321. International Management
FINA 4324. International Corporate Finance
MARK 4325. International Marketing
BLAW 4310. Basic International Law for Business
ECON 4306 or ECON 4321 or ECON 4322

Recommended Advanced Management and Business Electives

Students are limited to 12 hours of management beyond MANA 3318, MANA 3319, MANA 3320.

MANA 4325. Leadership in Organizations
MANA 4326. Diversity in Organizations

MANA 4330. Team Management
MANA 4340. Business and Society
MANA 4393. Internship
MANA 3319. Management Process Theory

Entrepreneurship/Small Business

Core Track Courses

MANA 3319. Management Process Theory
MANA 3325. Entrepreneurship and Venture Management
MANA 4338. Small Business Analysis
MANA 4339. Directed Studies in Entrepreneurship
MANA 4341. Negotiations and Conflict Resolution

Recommended Advanced Management and Business Electives

Students are limited to 12 hours of management beyond MANA 3318, MANA 3319, MANA 3320.

MANA 3320. Human Resource Management
MANA 4325. Leadership in
MARK 4303. Retailing and Service Marketing
OPMA 3308. Operations Management
MANA 4340. Business and Society

General Management

Core Track Courses

MANA 3319. Management Process Theory
MANA 3320. Human Resource Management
MANA 4325. Leadership in Organizations
MANA 4341. Negotiations and Conflict Resolution

Recommended Advanced Management and Business Electives

Students are limited to 12 hours of management beyond MANA 3318, MANA 3319, MANA 3320.

MANA 3325. Entrepreneurship and Venture Management
MANA 4321. International Management
MANA 4326. Diversity in Organizations
MANA 4330. Team Management
MANA 4340. Business and Society

Management Faculty

Chair

Associate Professor McGee

Professors

Datta, Gray, Price, Quick, Rasheed

Associate Professors

Bell, Benson, Casper, McMahan, Wheeler

Assistant Professors

Butts, Khavul, Lavelle, McFadyen, Nordtvedt, Yongmei

Lecturers

Anderson, Baldwin, Boston, Cox, Culbert, George, Veit

Professors Emeritus

Gerloff, Rosenstein, Wofford

The Department of Marketing

234 Business Bldg. · Box 19469 · 817-272-2876
www.uta.edu/marketing/undergraduate.htm

Requirements for a Bachelor of Business Administration Degree (Marketing Option)

See the College of Business Section of the catalog for specific degree requirements.

Marketing Faculty

Chair

Professor McDaniel

Professor

Chonko

Associate Professor

Luo

Assistant Professors

Briggs, Freling, Grisaffe, Jaramillo, Mani, Yang

Senior Lecturers

Dailey, Gossett, Lacefield, Rogers

The Department of Information Systems and Operations Management

535 Business Bldg. · Box 19437 · 817-272-3502
www.uta.edu/infosys

Requirements for a Bachelor of Business Administration Degree (Information Systems and Operations Management Options)

See the College of Business section of the catalog for specific degree requirements for the B.B.A. degree.

Requirements for a Bachelor of Science Degree in Information Systems

Students must meet all lower division requirements before enrolling for upper division courses. Specified prerequisites are designated for certain courses. Waiver of either of the above will require consent of the instructor and approval of the Director of Undergraduate Studies of the College of Business .

English

1301, 1302.

Literature

Three hours of English or modern and classical languages literature above the freshman level.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts, or philosophy, or technical writing.

Political Science

2311, 2312.

History

1311, 1312.

Mathematics

1302 or 1315, and 1316.

Natural Science

Eight hours in single lab science (biology, chemistry, geology or physics).

Fine Arts

Three hours in architecture, art, dance, music, or theatre arts.

Social/Cultural Studies

MANA 2302.

Oral Communication

COMS 1301 or 2305.

Business Core

ACCT 2301 and 2302; BLAW 3311; INSY 2303; BSTAT 3321; ECON 2305 and 2306; FINA 3313; MANA 3318 and 4322; OPMA 3306; MARK 3321.

Major Field

INSY 3300, 3303, 3304, 3305, 4305, 4306, 4325 and 6 hours of approved 3000/4000-level courses from business and/or computer science engineering.

Electives

Twelve hours of approved advanced business electives.

Total

122 hours.

Suggested Course Sequence

Freshman Year

First Semester: ENGL 1301; HIST 1311; Natural Science, 4 hours with laboratory; MATH 1315; Speech, 3 hours-Total Credit 16 hours.

Second Semester: Second Semester: ENGL 1302; HIST 1312; Natural Science, 4 hours with laboratory; MATH 1316; Fine Arts, 3 hours-Total Credit 16 hours.

Sophomore Year

First Semester: POLS 2311; ECON 2305; ACCT 2301; INSY 2303; MANA 2302-Total Credit 15 hours.

Second Semester: Literature, 3 hours; POLS 2312; ECON 2306; ACCT 2302; Liberal Arts Elective, 3 hours-Total Credit 15 hours.

Junior Year

First Semester: INSY 3300; INSY 3303; OPMA 3306; MANA 3318; BSTAT 3321-Total Credit 15 hours.

Second Semester: INSY 3304; INSY 4305; INSY Elective, 3 hours; BLAW 3311; MARK 3321-Total Credit 15 hours.

Senior Year

First Semester: FINA 3313; INSY 3305, INSY Elective, 3 hours; Advanced Business Electives, 6 hours-Total Credit 15 hours.

Second Semester: INSY 4306; INSY 4325; Outside or Advanced Business Electives, 6 hours; MANA 4322-Total Credit 15 hours.

Information Systems and Operations Management Faculty

Chair

Professor Baker

Professors

Frazier, Raja, Teng, Whiteside

Associate Professors

Cannon, Eakin, Mahapatra, Nerur, Prater, Sikora, Slinkman

Assistant Professors

Swafford, Wang, Zhang

Senior Lecturers

Davis, Esimai, Scott, Sears, Weltman

Professor Emeritus

Schkade

The Department of Curriculum and Instruction

5th Floor, Hammond HallBox 19227

The Department of Kinesiology

112 Physical Education Bldg. • Box 19259 • 817-272-3288
www.uta.edu/coehp/kinesiology

Overview

The Department of Kinesiology is committed to providing quality educational programs that emphasize scientific theory, hands-on learning in the laboratory setting and real-world application through clinical internships and other field-based experiences. The faculty's vast teaching experience and research expertise provide rich learning experiences across all of the department's academic programs.

The undergraduate studies within the Department of Kinesiology are organized

into three program areas: athletic training, exercise science and physical education teacher education. Each of these academic programs share a common core of kinesiology courses that provide students with a strong foundation in the sciences of human anatomy, biomechanics and exercise physiology, as well as an introduction to research methods. In addition to the kinesiology core, each undergraduate degree plan provides a comprehensive discipline-specific program of study designed to prepare students for a specific career path.

The Department of Kinesiology also offers a minor in sports medicine, as well as two degree plan options that meet the prerequisite requirements for admission to physical therapy, occupational therapy and physician's assistant graduate programs, as well as medical and dental schools (See BS in Exercise Science - Clinical Health Professions and BS in Athletic Training).

The three undergraduate program areas and their associated degree plans are listed below. Complete descriptions and course requirements are provided on subsequent pages.

Physical Education Teacher Education (PETE)

Bachelor of Arts in Kinesiology with All-Level Teacher Certification in Physical Education

Exercise Science

Bachelor of Science in Exercise Science - Clinical Health Professions (CHP)

Bachelor of Science in Exercise Science - Fitness/Wellness (F/W)

Athletic Training

Bachelor of Science in Athletic Training with All Level Teacher Certification

Bachelor of Science in Athletic Training

Bachelor of Arts in Athletic Training

Physical Education Teacher Education (PETE)

The Bachelor of Arts in Kinesiology with All-Level Teacher Certification prepares individuals for teaching and coaching positions in public and private schools. This degree is specifically designed to prepare graduates for certification in teaching K-12 physical education. The program is designed to provide a scientific and pedagogical foundation with multiple public school experiences that enable students to observe, assist teachers and coaches, experiment with curriculum, create programs, and gain structured experiences in teaching. Because of the emphasis on field experiences, our graduates are well prepared when they enter the workforce. In addition, our graduates work in diverse settings and are able to plan and teach individuals with disabilities successfully. Candidates are also encouraged to earn a second teaching area concentration (such as English, History, Biology/Life Science, Math, Modern Language, Health Education, etc.).

Admission Requirements:

To ensure that all students develop a solid academic foundation, all first time, first-year freshman students (regardless of intended major) must obtain academic advising and clearance for registration from a **University College academic advisor** during their first year. After the first year, students should seek advisement from the College of Education and Health Professions. Transfer students must seek academic advising from the College of

Education and Health Professions academic advisors immediately.

In order to qualify for admission to the Physical Education Teacher Education (PETE) program, students must:

- Satisfy the University's credit hour requirements for admission to a degree plan
- Provide transcripts from each college or university the student has attended (reflecting all current/completed semesters)
- Petition for admission into the College of Education and Health Professions prior to taking education coursework
- Meet College of Education and Health Professions requirements on the TASP: Reading-270; Writing-220; and Math-230
- Have a GPA of at least 2.75 (overall or for the last 60 hours, whichever is higher)
    - This GPA must also be sustained across the following education sequence: KINE 2301, KINE 3304, KINE 3388, KINE 4319, KINE 4320, KINE 4321, EDML 4300, LIST 4343, and EDUC 4352.

Maintaining Major Status Upon Entering the College of Education and Health Professions: If a student falls below a 2.0 GPA at any time prior to petitioning for admission into the College of Education and Health Professions, the student will be on departmental probation. In order to take additional Kinesiology or Health Education Courses at UT Arlington, approval must be granted by the Department Chairperson. If the student is unable to make up the deficiency in the semester immediately following the probation, the student will lose status as a Bachelor of Arts in Kinesiology with All-Level Certification major. Courses to make up a GPA deficiency must be taken at UT Arlington. If the student is able to make up the GPA deficiency in the semester immediately following loss of major status, she or he are eligible for reinstatement as a major by making application to the Departmental Advisor when grades are released. No courses on the degree plan may be taken as pass/fail.

Application for Residency: Students must apply to the Director of Field Experience in the College of Education and Health Professions by the appropriate deadline to begin KINE 4647 Teacher Residency. Students must also submit any applicable background checks at registration. The residency will be performed in both elementary and high school or middle school levels.

Bachelor of Arts Degree in Kinesiology with All-Level Teacher Certification

English (6 hours)

1301, 1302.

Literature (3 hours)

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective (3 hours)

COMS 2304 or 2305.

History (6 hours)

1311, 1312.

Mathematics (6 hours)

1302, plus three hours (level of college algebra or higher).

Political Science (6 hours)

2311, 2312.

Natural Science (12 hours)

BIOL 1441, 2457, 2458.

Fine Arts (3 hours)

Three hours from architecture, art, dance, music, or theatre arts.

Social/Cultural Studies (3 hours)

Three hours of designated courses in archaeology, classical studies, communication, economics, history, humanities, linguistics, political science, social or cultural anthropology, social/political/cultural geography, social psychology, sociology or women's studies.

Education Sequence (21 hours)

KINE 4320, KINE 4321, EDML 4300, LIST 4343, EDUC 4352, and KINE 4647

Kinesiology Academic Core (37 hours)

KINE 1315, 1400, 2301, 2330, 3300, 3301, 3304, 3306, 3315, 3325, 3388, 4319.

Second Concentration Area Electives (14 hours)

15 hours from second teaching field area

Total

120 hours, 36 of which must be 3000/4000 level.

Exercise Science

The Exercise Science program is designed to prepare students for health-related fields such as physical therapy, occupational therapy, cardiac rehabilitation and physician's assistant. This degree may also be used in preparation for medical or dental school. The Exercise Science program is also designed for students interested in careers in the commercial and corporate fitness industry as personal fitness trainers or health club and fitness directors, as well as for students interested in pursuing a graduate degree in exercise science.

Exercise Science majors can choose from one of two degree plan options: the Clinical Health Professions (CHP) and the Fitness/Wellness (F/W) Track. The Clinical Health Professions Track incorporates the science prerequisites required of most physical therapy, occupational therapy, and physician's assistant graduate programs. The Health and Fitness Track is designed according to the guidelines established by the American College of Sports Medicine. Its purpose is to prepare students for the ACSM Health Fitness Specialist certification program, as well as the certification offered by the National Strength and Conditioning Association, the Certified Strength and Conditioning Specialist.

Admission Requirements:

To ensure that all students develop a solid academic foundation, all first time, first-year freshman students (regardless of intended major) must obtain academic advising and clearance for registration from a **University College academic advisor** during their first year. After the first year, students should seek advisement from the College of Education and Health Professions. Transfer students must seek academic advising from the College of

Education and Health Professions academic advisors immediately.

All incoming freshmen and transfer students wishing to major in Exercise Science are initially classified as Exercise Science pre-majors (EXSS_Int). To be classified as an Exercise Science major, students must satisfy the following requirements:

Clinical Health Professions Track

- Completion of 12 hours at UT Arlington
- Completion of KINE 1400 with grade of B or better
- Overall GPA of 2.75 and KINE GPA of 3.0

Fitness/Wellness Track

- Completion of 12 hours at UT Arlington
- Completion of KINE 1400 with grade of C or better
- Overall GPA of 2.25 and KINE GPA of 2.25

Maintaining Major Status: Students accepted as Bachelor of Science in Exercise Science majors in the Department of Kinesiology must maintain the minimum GPAs as indicated above or they will be on departmental probation. In order to take additional Kinesiology courses, approval must be granted by the Department Chair. If the student is unable to make up the deficiency in the semester immediately following the probation, the student will lose status as a Bachelor of Science in Exercise Science major. Courses to make up the GPA deficiency must be taken at UT Arlington. If the student is able to make up the GPA deficiency in the semester immediately following loss of major status, he or she can be reinstated as a major by making application to the Departmental Advisor when grades are released. No courses on the degree plan may be taken as pass/fail.

Bachelor of Science Degree in Exercise Science

Clinical Health Professions Track

This track is designed for individuals who plan to attend graduate school to pursue degrees in the health professions of physical therapy, occupational therapy, physician's assistant or exercise physiology.

University Core (38-39 hours)

English (6 hours)

1301, 1302.

Literature (3 hours)

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective (3 hours)

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing. or COMS 2304 or 2305

History (6 hours)

Six hours U.S. History or three hours U.S. and three hours Texas History.

Mathematics (6-7 hours)

1308 plus one of the following: 1302, 1303, 1426.

Fine Arts (3 hours)

Three hours from architecture, art, dance, music, or theatre arts.

Political Science (6 hours)

2311, 2312.

Psychology (3 hours)

1315.

Science (24 hours)

BIOL 1441, 2457, 2458, CHEM 1441, 1442, PHYS 1441.

Science Electives (12 hours)

Sufficient to complete degree requirements. Students planning to pursue graduate programs in physical therapy, occupational therapy or physician's assistant should meet with their advisor to determine specific elective requirements (Example for PT: BIOL 3309, BIOL 1442, PHYS 1442, PSYC 3310).

Exercise Science Major Core (32 hours)

KINE 1400, 3300, 3301, 3315, 3325, 4300, 4315, 4329, 4331, 4188 and HEED 3301.

Additional KINE Requirements (6 hours)

KINE 3320 and 3324 (Recommended for PA, PreMed - Orthopedics)

OR

KINE 3333, 4336 (Recommended for PT, OT)

KINE Electives (Sufficient to bring total to 120 hours)

Total

120 hours, minimum of 36 hours must be 3000/4000 level.

Many of the courses in the Kinesiology curriculum require prerequisite courses which are identified in the course description.

Fitness/WellnessTrack

This track is designed for individuals who plan to work in corporate or commercial fitness, recreation or in wellness/health promotion.

English (6 hours)

1301, 1302.

Literature (3 hours)

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective (3 hours)

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing, or COMS 2304 or 2305.

History (6 hours)

Six hours U.S. History or three hours U.S. and three hours Texas History.

Mathematics (6 hours)

1302, 1308.

Fine Arts (3 hours)

Three hours from architecture, art, dance, music, or theatre arts.

Political Science (6 hours)

2311, 2312.

Social/Cultural Studies (3 hours)

Three hours of designated courses in archaeology, classical studies, communication, economics, history, humanities, linguistics, political science, social or cultural anthropology, social/political/cultural geography, social psychology, sociology or women's studies.

Natural Science (19 hours)

BIOL 1441, 2457, 2458, CHEM 1441 plus three hours of science electives (may include Exercise Science classes in the Department of Kinesiology).

Exercise Science Academic Core (40 hours)

KINE 1400, 2330, 3300, 3301, 3302, 3315, 3325, 4315, 4330, 4331, 4329, 4389 (or 4388) and HEED 3301.

Major Electives (12 hours)

12 hours of HEED, KINE or Science

General Electives (13 hours)

Total

120 hours, minimum of 36 hours must be 3000/4000 level.

Many of the courses in the Kinesiology curriculum require prerequisite courses, which are identified in the course descriptions.

Athletic Training

The Athletic Training Education Program (ATEP) is designed to prepare students for careers in the health care profession of athletic training. The classroom, laboratory and clinical components of the program are structured around the Athletic Training Educational Competencies published by the National Athletic Trainers' Association (NATA) Education Council and the Role Delineation Study conducted and published by the Board of Certification (BOC). The clinical education component of the program includes six clinical courses. These courses provide formal instruction of clinical skills within a structured laboratory environment and require students to complete clinical education rotations under the supervision of a Certified and Licensed Athletic Trainer or other health care professional. Students are evaluated on their mastery of knowledge and clinical skills through written tests, class projects, and oral practical examinations. Students are also evaluated on their ability to integrate the clinical proficiencies into their daily clinical practice and make sound clinical decisions.

The mission of the Athletic Training Education Program (ATEP) is to provide an active learning environment for students to acquire and master the knowledge, skills, clinical proficiencies, and attitudes necessary for success as an Entry-Level Athletic Trainer. The ATEP goals and objectives include:

- to prepare students to pass the BOC (Board of Certification) Exam,
- to prepare students to pass the Texas Advisory Board of Athletic Trainers' State Licensure Exam,
- to develop students' critical-thinking and decision-making skills for success in the allied health profession of athletic training,
- to instill the value of professionalism,

- to teach students the value of becoming involved in their professional associations through service work, and
- to facilitate students' efforts in locating and securing an athletic training job or placement in a graduate school.

Program Description

The University's ATEP is accredited through the Commission on Accreditation of Athletic Training Education (CAATE). Students within the ATEP are able to choose from among three possible degree plans:

- BS in Athletic Training with All-Level Teaching Certificate
- BS in Athletic Training (non-teaching)
- BA in Athletic Training (non-teaching)

The athletic training major is a four-year program that is divided into two phases: a one-year pre-professional phase (Level I) followed by a three-year professional phase (Levels II-IV).

In addition to formal classroom instruction, athletic training majors also receive structured clinical education to acquire and master the hands-on skills required of the Entry-Level Athletic Trainer. Both the classroom and clinical components of the program are structured around the Competencies in Athletic Training Educational Competencies published by the National Athletic Trainers' Association (NATA) Education Council and the Role Delineation Study conducted and published by the BOC. The clinical education component of the major includes six clinical courses. These courses provide formal instruction of clinical skills within a structured laboratory environment and require students to complete clinical education rotations under the supervision of a Certified and Licensed Athletic Trainer or other health care professional. Students are evaluated on their mastery of knowledge and clinical skills through written tests, class projects, and oral practical examinations. Students are also evaluated on their ability to integrate the clinical proficiencies into their daily clinical practice.

Prior to placement in a clinical education rotation, all athletic training students (Levels I-IV) must meet the following requirements:

- Provide documentation of immunization against hepatitis B*, measles, mumps, tetanus, polio, and diphtheria.
- Complete OSHA blood borne pathogen training.
- Provide documentation of current certification in First Aid and Cardiopulmonary Resuscitation (CPR with AED).
- Provide proof of current liability insurance.

*The hepatitis vaccination is a series of three shots, with the first given initially, the second at one month, and the third at six months. Students must receive the first shot prior to clinical placement.

NOTE: Some clinical rotation assignments may also require students to obtain a personal background check and a tuberculosis (TB) test.

Level I Phase of Study

The Level I phase of the program is typically completed during the student's freshman spring semester at UT Arlington and includes formal classroom and laboratory instruction, as well as directed clinical

experiences in a variety of athletic training settings. The Level I requirements* include:

- KINE 2420 Introduction to Athletic Training (4 credit hours) [Grade of B or better].
- KINE 2130 Clinical Practicum I (1 credit hour) [Grade of B or better].
- Completion/documentation of a minimum of 120 hours of directed clinical experience in the UT Arlington athletic training room(s) and/or other approved clinical education sites.
- Successful completion/documentation of required competencies with a score of 80% or better.

*****Transfer students may complete the Level I course requirements at their current junior or senior college or complete them upon arrival to UT Arlington. **Transfer students are encouraged to contact Dr. Paul Krawietz as soon as possible to determine the transferability of athletic training courses.**

Level II-IV Phases of Study

Levels II-IV of the program require a minimum of three years of classroom study and clinical education. Each semester, students are assigned to an approved clinical instructor (ACI) or clinical supervisor who is responsible for providing comprehensive health care services to athletes, patients, or physically active individuals within a variety of clinical sites. Students are expected to work closely with their ACI/CI to practice and integrate their athletic training skills while also developing their clinical decision-making skills. All students are required to complete at least three off-campus clinical rotations; therefore, students will need suitable transportation. Students are required to complete a minimum of 1500 hours of clinical experience under the supervision of an ACI, CI or other licensed or certified health care professional over the course of the program. Completion of the program requirements will enable students to be eligible for the BOC Exam and the Texas Advisory Board of Athletic Trainers' Licensing Exam.

Admission Criteria

To ensure that all students develop a solid academic foundation, all first time, first-year freshman students (regardless of intended major) must obtain academic advising and clearance for registration from a **University College academic advisor** during their first year. After the first year, students should seek advisement from the College of Education and Health Professions. Transfer students must seek academic advising from the College of Education and Health Professions academic advisors immediately.

Admission to the UT Arlington ATEP is selective and competitive. A limited number of students are admitted each year based upon the number of returning students and the number of clinical instructors. Prospective students must complete the Level I phase of study to be considered for continuance in the ATEP. The technical standards set forth by the ATEP establish the essential qualities considered necessary for students admitted to this program to achieve the knowledge, skills, and competencies of an Entry-Level Athletic Trainer, while also meeting the expectations of CAATE. The technical standards are printed in the ATEP handbook and are available on the ATEP Web site.

Admission to the Level I phase of the program is based on the following criteria*:

- Admission to UT Arlington.
- Submission of ATEP application.
- Ability to pass a physical exam.
- Ability to meet the technical standards for admission.

Continuance beyond the Level I phase of the program is based on the following criteria:

- Successful completion of the Level I requirements.*
- Overall GPA of 2.5 or higher.
- Submission of ATEP application with transcripts (for transfer students who did not complete the Level I requirements at UT Arlington).
- Submission of three recommendation forms completed by the students' clinical supervisors (ACI/CI).
- Completion of a personal interview with the ATEP Continuance Committee, which will consist of the Program Director, Clinical Education Coordinator, at least one staff athletic trainer and three upper-level athletic training students.

*Completion of the Level I requirements does not guarantee continuance to Levels II-IV of the ATEP.

Retention Criteria

Students must maintain an overall GPA of 2.5. Additionally, students must earn a C or better in all athletic training courses (athletic training courses with an earned grade of D or lower must be repeated) and maintain an athletic training GPA of 3.0. If a student fails to maintain either of the GPA requirements, they will be placed on probation. A student will be afforded two semesters, at most, to raise their GPA to the required 2.5 overall and 3.0 within the major. During the first probationary semester, the student will be allowed to continue accruing clinical experience hours; however, he/she will be required to attend mandatory study sessions. Should a second probationary semester be necessary, the student will be removed from the clinical aspect of the program, preventing him/her from accruing any clinical experience hours. Should the student fail to raise their GPA during the second probationary semester, he/she will be removed from the ATEP.

Graduation Requirements

To receive a degree in athletic training, students must:

- Complete all classroom and clinical education requirements
- Complete all athletic training courses with a C or better
- Complete a minimum of 1500 hours of clinical education/field experience
- Earn a minimum cumulative GPA of 2.5
- Earn a minimum GPA of 3.0 within the athletic training core courses

Requirements for a Bachelor of Science Degree in Athletic Training (All-Level Teacher Certification)

English (6 hours)

1301, 1302.

Literature (3 hours)

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts (3 hours)

COMS 2304 or 2305.

Fine Arts (3 hours)

Three hours from architecture, art, dance, music, or theatre arts.

History (6 hours)

1311, 1312.

Political Science (6 hours)

2311, 2312.

Math (6 hours)

1302, 1308

Psychology (3 hours)

1315.

Science (12 hours)

BIOL 1441, 2457, 2458.

Athletic Training Academic Core (36 hours)

KINE 1400, 2420, 3300, 3301, 3315, 3320, 3324, 3330, 3333, 4293, 4233, 4336.

Athletic Training Practicum (6 hours)

KINE 2130, 3130, 3131, 4130, 4131, 4132.

Additional Required Courses (9 hours)

KINE 3325, 4329, HEED 3301

Education Sequence (30 hours)*

KINE 2301, 3304, 3388, 4320, 4321, 4647, EDML 4300, EDUC 4352, LIST 4343.

*Students interested in Texas Teacher Certification should consult the College of Education and Health Professions section of this catalog for the most recent changes in requirements regarding admission to teacher education, completion of University programs in preparation for certification, and eligibility for certification after graduation.

Total

129 hours, 36 of which must be 3000/4000 level.

Requirements for a Bachelor of Science Degree in Athletic Training (Non-Teaching)

English (6 hours)

1301, 1302.

Literature (3 hours)

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts (3 hours)

COMS 2304, 2305.

Fine Arts (3 hours)

Three hours from architecture, art, dance, music, or theatre arts.

History (6 hours)

1311, 1312.

Political Science (6 hours)

2311, 2312.

Math (6 hours)

1302, 1308

Psychology (3 hours)

1315.

Science (20 hours)

BIOL 1441, 2457, 2458, PHYS 1441, CHEM 1441.

Athletic Training Academic Core (36 hours)

KINE 1400, 2420, 3300, 3301, 3315, 3320, 3324, 3330, 3333, 4293, 4233, 4336.

Athletic Training Practicum (6 hours)

KINE 2130, 3130, 3131, 4130, 4131, 4132

Additional Required Courses (9 hours)

KINE 3325, 4329, HEED 1301

Electives (13 hours)

Sufficient to complete degree requirements. Students planning to pursue graduate programs in physical therapy, occupational therapy or physician's assistant should meet with their advisor to determine elective requirements.

Total

120 hours, 36 of which must be 3000/4000 level.

Requirements for a Bachelor of Arts Degree in Athletic Training (Non-Teaching)

English (6 hours)

1301, 1302.

Literature (3 hours)

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts (3 hours)

COMS 2304 or 2305.

Fine Arts (3 hours)

Three hours from art, dance, music, or theatre arts.

History (6 hours)

1311, 1312.

Political Science (6 hours)

2311, 2312.

Math (6 hours)

1302, 1308.

Psychology (3 hours)

1315.

Science (12 hours)

BIOL 1441, 2457, 2458.

Modern and Classical Languages (14 hours)

1441, 1442, 2313 or equivalent, 2314.

Athletic Training Academic Core (36 hours)

KINE 1400, 2420, 3300, 3301, 3315, 3320, 3324, 3330, 3333, 4293, 4233, 4336.

Athletic Training Practicum (6 hours)

KINE 2130, 3130, 3131, 4130, 4131, 4132.

Additional Required Courses (9 hours)

KINE 3325, 4329, HEED 3301

Electives (7 hours)

Total

120 hours, 36 of which must be 3000/4000 level.

Option for Minor in Sports Medicine

The minor in Sports Medicine requires 19 hours of course work in the Department of Kinesiology.

Required Courses (13 hours):

KINE 1400 Introduction to Exercise Science (Fall, Spring, Summer)

KINE 3300 Functional Anatomy (Fall, Spring, Summer)

KINE 3301 Biomechanics of Human Movement (Fall, Spring, Summer)

KINE 3315 Physiology of Exercise (Fall, Spring, Summer)

Elective Options (6 hours):

Orthopedic/Musculoskeletal Assessment

KINE 3320 Lower Extremity Evaluation (Fall only)

KINE 3324 Upper Extremity Evaluation (Spring only)

Rehabilitation

KINE 4336 Musculoskeletal Rehabilitation (Fall only)

KINE 3333 Therapeutic Modalities (Spring only)

Health and Wellness

KINE 4331 Obesity and Weight Management (Fall only)

HEED 3301 Sports Nutrition (Fall, Spring, Summer)

Fitness

KINE 4329 Strength and Conditioning (Spring and Summer)

KINE 4315 Fitness Assessment and Programming (Fall and Spring)

Option for Minor in Health

Students desiring a Health Minor as part of their undergraduate curriculum can choose 18 hours from the following courses:

HEED 1340, 3301, 3303, 3305, 3330, 4310, 4312, 4320 or 4340

Students selecting the Health Minor should first consult with advisors in their department for approval, then with Kinesiology advisors.

Oral Communication Competencies

All students declared as majors in the Department of Kinesiology are required to complete a designated speech course, which stresses "...the development of an individual's speaking abilities..."

Computer Use Competencies

All students declared as majors in the Department of Kinesiology are required to pass the University computer competency exam or complete KINE 1400 Introduction to Exercise Science early in their specialization. Embedded in this class are tasks requiring familiarity with the word processor, spreadsheet and Internet browsing programs common on personal computers. Additionally, the department's core curriculum requires the demonstration of computer use competencies for completion of the majority of assignments.

Kinesiology Faculty

Chair

Professor Fincher

Professors

Buckwalter, McKeown, Ricard

Associate Professors

McDonough, Trowbridge, Wilson

Assistant Professors

Keller, Nelson, Olson, Prisby, Ray, Resch

Clinical Assistant Professors

Crow, Hawkins, Heddins, Krawietz, Yilla

Lecturers/Clinical Instructors

Giammanco, Homuth, Rudewick

Professor Emeritus

Stafford

The Department of Educational Leadership and Policy Studies

105 Trimble HallBox 19575

University Studies

105 Ransom Hall
Student Appointment Check In at the Main Reception Desk on First Floor Ransom Hall
Box 19196
817-272-3140
www.uta.edu/universitystudies

Message from Executive Director Dawn Remmers, Ph.D.

At UT Arlington, we understand that not all students fit into the molds that the traditional disciplinary majors offer given

life's complexities, twists and turns. The University Studies Program was created to serve students who need a more flexible approach to meeting their educational goals. While not grounded in a traditional academic discipline, a Bachelor of Arts in University Studies can open doors in the workforce that otherwise remain closed to students without a college degree.

As part of the University Studies program, you can apply course credit earned from various academic paths toward a customized degree; in your remaining coursework, you can reap the benefits of quality instruction from our outstanding faculty from across the UT Arlington campus. In addition, the program meets the unique advising needs of its students by providing a highly personalized advising experience: you will work with academic advisors whose number one goal is to help you earn your college degree.

I invite you to visit our website for more information about how to apply to the program, degree requirements, and information on how to prepare for the advising process, and ultimately, graduation.

I welcome the opportunity to shake your hand on graduation day!

Program In University Studies

The University Studies Degree provides students with an opportunity to explore their interests with a degree that allows a breadth of study in a range of disciplines and subjects and provides basic preparation for a variety of career paths that might not be well served through traditional university majors. Students seeking a degree in University Studies will graduate with a broad-based education in at least three fields of study. Once admitted, a student must complete 15 hours in three fields of study (hours completed prior to entering the University Studies program may be used to satisfy degree requirements after consultation with a program advisor). University Studies students hone their skills in important areas such as communication, critical thinking, project management and problem solving.

Admission Requirements

Students may apply for admission to the University Studies major after successfully completing 60 credit hours. A 2.0 g.p.a. is required for admission to the program and for graduation.

Requirements for a Bachelor of Arts Degree in University Studies

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts, or philosophy, or technical writing.

Social/Cultural Studies

Three hours of social and cultural studies selected from designated courses which have been approved by the Undergraduate Assembly.

Fine Arts

Three hours from architecture, art, dance, music or theatre arts.

Political Science

POLS 2311 and POLS 2312.

History

HIST 1311 and HIST 1312.

Mathematics

Six hours (level of college algebra or higher).

Science

Eight hours in a single lab science biology, chemistry, geology or physics).

Electives

Sufficient to give the total number of hours required for the degree.

Major

Students earning a major in University Studies must select three of the following Areas of Concentration and complete 15 hours in each, for a total of 45 hours. In each Area of Concentration, at least six of the fifteen hours must be 3000/4000 level. Of the total 45 hours in the major, no more than fifteen hours may bear the same course prefix. Courses completed as part of the core curriculum may not be used to satisfy the University Studies major requirements.

Arts
Any course with the prefix ARCH, ART, DNCE, INTD, MUSI, THEA

Business
Any course with the prefix ACCT, BCOM, BLAW, BSTAT, ECON, FINA, INSU, INSY, MANA, MARK, OPMA, REAE

Community Studies
Any course with the prefix BEEP, CRCJ, ECED, EDUC, EDML, LIST, SOCW, URPA

Engineering
Any course with the prefix BE, CE, CSE, EE, ENGR, IE, MSE, MAE, NE

Health and Wellness
Any course with the prefix HEED, KINE, NURS

Humanities
Any course with the prefix CHIN, CLAS, ENGL, FREN, GERM, GREK, HIST, HUMA, LATN, LING, MODL, PHIL, PORT, RUSS, SPAN

Media
Any course with the prefix ADVT, BCMN, COMM, COMS, CTEC, JOUR, PREL

Physical Science
Any course with the prefix BIOL, CHEM, GEOL, MATH, PHYS, SCIE

Social Science
Any course with the prefix ANTH, CRCJ, GEOG, POLS, PSYC, SOCI, SOCW, URPA

Notes: Courses in Mexican-American Studies (MAS) or Women's Studies (WOMS) may be substituted for the equivalent cross-listed course and will count as such in each of the Areas of Concentration. Those MAS or WOMS courses that are not cross-listed

belong to the Social Sciences Area of Concentration.

Some courses in the University Catalog are restricted and may not be available to University Studies majors.

Total

120 hours, at least 36 of which must be 3000/4000 level.

Minor

Students pursuing a degree in University Studies may not elect a minor; moreover, University Studies does not offer a minor.

Double Major

Students may not include University Studies as part of any double major or dual degree plan or complete the degree as a second bachelors degree.

The College of Education

Dean: Jeanne Gerlach, Ed.D., Ed.D.
5th Floor, Hammond Hall • Box 19227 · 817-272-2591
www.uta.edu/coehp

Philosophy

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. It offers certification and degree opportunities for persons interested in becoming elementary, middle-level, all-level, or secondary teachers and administrators.

COEHP Conceptual Framework

The UTA College of Education and Health Professions' conceptual framework was developed collaboratively and over time. Following the identification of a set of core values held by all involved in the preparation of candidates enrolled in the College of Education and Health Professions, members of the university, P-12 districts and area business and foundation communities worked together to develop a shared vision for education. From this vision emerged the conceptual framework, which has as its foundation eight core values that represent critical dispositions and commitments of the program and its candidates: Collaboration, Research-Based, Technology, Field Experiences, Excellence, Diversity, Life-Long Learning, and Learner-Centered Environments. An expansion of the core values follows:

1. **Collaboration** represents a commitment to shared responsibility among all the stakeholders for the preparation of educators. This core value encourages candidates to value the positive impact of collaboration on the classroom learning environment and on program development and maintenance. As members of Holmes Partnership and the National Network for Educational Renewal, the UT Arlington College of Education and Health Professions is recognized nationally for its understanding of collaboration as a vehicle for strengthening educator preparation. Collaboration occurs across our unit, the university, the greater Dallas-Fort Worth metropolitan area, and areas well beyond

the local arena through our award-winning distance education courses.

2. Candidates and unit faculty are expected to use **research-based** information to make informed educational decisions, including modeling curriculum demonstrating best practices, and to apply research to K-16 classroom settings.

3. Unit faculty are expected to model effective use of **technology** through all courses and field experiences, although the infrastructure, hardware, and personnel to support the technology outcomes for candidates have limitations. Implementation of the data management system requires candidates and unit faculty to work together to engage in the use of technology to manage data associated with candidate, course and program outcomes.

4. The core value of collaboration aligns well with commitment to field experiences for candidates at UT Arlington. Early and on-going **field experiences** in diverse settings, collaboratively designed and implemented with public school partners, are a vital part of all levels of educator preparation in the UT Arlington College of Education and Health Professions. The Area University-School Network for Educational Renewal (AUSNER) provides one forum for regular discussions and planning sessions between university and school personnel who continually seek to provide the most effective field experiences for candidates preparing to be Texas teachers.

5. **Excellence**: Using a constructivist theoretical basis, unit faculty strive to establish active learning environments that require candidates to build on previous knowledge and experience, put forth their best efforts, and reach their full potential as educators. Excellence is expected across all standards and in all arenas.

6. The College's support of the power of **diversity** is evidenced by the expectation for candidates and unit personnel to respect and appreciate all cultures, persons, learning approaches, and ideas, and to promote such respect and appreciation at all levels of P-12 schooling. Placing candidates in diverse settings for practice and learning are hallmarks of the COEHP programs and the far-reaching distance education program encourages students to embrace a global academic perspective.

7. Through **life-long learning,** unit personnel and candidates are expected to participate well beyond the minimum expectations for professional development and leaning.

8. Establishing **learner-centered environments** is equally important. Candidates are expected to be able to plan, implement and maintain learning environments that value, challenge, and support students in their search for excellence. Unit faculty model the creation of learner-centered environments in a variety of ways as the needs of candidates are met through the programs.

Admission, Enrollment and Program Continuation

To ensure that all students develop a solid academic foundation, all first time, first-year freshman students (regardless of intended major) must obtain academic advising and clearance for registration from a **University College academic advisor during their first year**. After the first year, students should seek advisement from the College of Education and Health Professions. Transfer students must seek academic advising from the College of

Education and Health Professions academic advisors immediately.

Eligibility for Admission and Enrollment

Students seeking admission to the College of Education and Health Professions must meet specific criteria established by the College of Education and Health Professions for unconditional admission**:**

- Satisfy credit hour requirements for admission to a degree plan.
- Application for admission.
- Submit transcripts from each college or university the student has attended (reflecting all current/completed semesters).
- Meet College of Education and Health Professions requirements on the THEA: Reading-270 (Bilingual Education-260); Writing-220; Math-230.
- Have a GPA of at least 2.75 (overall or the last 60 hours, whichever is higher).
- Any other assessment requirements deemed necessary by the College of Education and Health Professions.
- Students who have been suspended from The University of Texas at Arlington or any other university or program for reasons other than academic reasons may not be admitted or readmitted to an educator preparation program in the College of Education and Health Professions.

Eligibility for Program Continuation

Each candidate for certification must:

- Demonstrate suitability for admission to the teaching profession.
- Demonstrate knowledge of and adherence to the Code of Ethics and Standard Practices for Texas Educators.
- Demonstrate the speech competencies associated with proficient oral communication in instructional settings. If a student is found to be deficient in these competencies, successful completion of COMS 3315 or an approved substitute will be required.
- Demonstrate progress through committee assessment of the teaching field(s) or specialization(s) and maintain a 2.75 GPA in all College of Education and Health Professions certification courses with a grade of C or better.
- Not have been suspended from UT Arlington or any other university or program for reasons other than academic reasons.

Should questions be raised by UT Arlington faculty or professional practitioners regarding a student's program continuation, the student will be referred to the Department in which he or she is enrolled.

Resources

Certification and Advising Services

Patty Motlagh, Assistant Dean for Certification and Testing, 501 Carlisle Hall

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.

To schedule an advising appointment: **(817) 272.2956**

For certification and advising questions: coedadvising@uta.edu

Information concerning state examinations and application procedures needed to obtain teacher, principal, superintendent, and special program certification in Texas may also be provided by Certification and Advising Services.

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 State Board for Educator Certification. To be recommended to the State Board for Educator Certification/Texas Education Agency for initial teacher certification, a teacher candidate must have successfully completed the following:

- All course work required for certification, including a baccalaureate degree.
- All College of Education and Health Professions certification courses with a grade of C or better and with a minimum GPA of 2.75.
- For purposes of determining eligibility for certification, all applicable grades, including those earned at other institutions, will be used in the calculation of grade point averages.
- Pass all required Texas Examinations for Educator Standards (TExES).
- Apply online for certification to the State Board for Educator Certification (SBEC) www.sbec.state.tx.us when all course work is completed, the bachelor's degree is posted on UT Arlington transcript, and all required state-mandated tests have been successfully passed.

Professional Development

The Office of Professional Development supports partnerships between the College of Education and Health Professions and K-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 Internship semester and a Residency semester arranged through the Office of Professional Development. The Internship semester gives teacher education candidates the opportunity to observe and interact with diverse student populations in variety of formal and informal educational settings at partnership schools. During the Residency 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. Contact: Dr. Ruth Davis, Director of the Office of Professional Development, 817-272-7448, davisr@uta.edu.

Education Career Services

www.uta.edu/coed/career
817-272-2956, 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.

College of Education and Health Professions Centers

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.

Science Education and Career Center

The College of Education and Health Professions and the College of Science work collaboratively through the Science Education and Career Center to increase the number of new and existing educators in both formal and informal settings who are adequately prepared to deliver challenging, standards-based science, mathematics, and technology (SMT) instruction through the application of new, research-validated models for teaching and learning. The Center loans science teaching kits to UT Arlington alumni through the Science and Math Teacher Resource Center Web site. The Center also coordinates the University's outreach to school districts, community-based organizations, and local businesses in support of efforts to guide all Pre-K-16 students, especially those in urban settings, in achieving higher standards of learning in SMT. Contact information: 817-272-2129, cos.uta.edu/secc.html.

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 .

Instructional Departments

The Department of Curriculum and Instruction

The mission of the Department of Curriculum and Instruction is to prepare and support effective professional educators who can meet students' diverse academic, social, and personal needs. Department faculty members also contribute to education by generating and disseminating high-quality research, developing innovative programs to meet education needs, and through providing meaningful professional service.

The Department of Curriculum and Instruction offers five programs-Early Childhood - Grade 6, Middle-level (grades 4 - 8), Secondary (grades 8 - 12), Early Childhood - Grade 6 Bilingual, and Literacy-all of which are based on state certifications and state standards. The department offers the following undergraduate degrees:

- *Bachelor of Arts (B.A)* - Modern Language Requirement
- Child Studies (Articulated) with EC-6 Generalist Teacher Certification
- Interdisciplinary Studies with EC-6 Generalist Teacher Certification
- Child Studies (Articulated) with EC-6 Bilingual Teacher Certification
- Interdisciplinary Studies with EC-6 Bilingual Teacher Certification
- Interdisciplinary Studies with 4-8 Middle-Level English Language Arts/Social Studies Teacher Certification
- *Bachelor of Science (B.S.)* - Math and Science Requirements
- Interdisciplinary Studies with EC-6 Generalist Teacher Certification
- Interdisciplinary Studies with 4-8 Middle Level Math/Science Teacher Certification
- Interdisciplinary Studies with 4-8 Middle Level Generalist Teacher Certification

Please consult the College of Education and Health Professions Web site for current information on degree plans.

Degreed students may choose the post-baccalaureate program for initial teacher certification at the graduate level. See the **College of Education and Health Professions Web site** or a graduate academic advisor for details.

Internship

The application deadline is March 1 for the Fall semester and October 1 for the Spring semester Internships.

Early Childhood - 6th Grade Internship occurs in the fall semester. Students enroll in three on-campus courses. They also spend one day per week in a public school classroom. In this classroom, they will work with the mentor teacher and complete assignments from their on-campus courses. Candidates may be offered opportunities for employment as early childhood teaching assistants in a kindergarten setting. Candidates must complete all core and support system courses and meet all requirements (GPA, THEA scores, and prerequisite courses) prior to the Internship semester.

The internship for **Middle-Level** certification is called the **Inquiry Semester**, which is a one-semester experience for

students seeking middle-level certification. It follows the university calendar. The Inquiry semester is in the Fall semester and must immediately precede the Residency semester.

To be eligible to enter the Inquiry Semester for middle-level certification, a student must:

- Have filed a degree plan with the College of Education and Health Professions.
- Have an overall (or last 60 hours) GPA of 2.75.
- Have completed the required content area courses.
- Have a minimum GPA of 2.75 in all College of Education and Health Professions certification courses.
- Have completed EDML 4300, EDML 4350, EDTC 4301, EDML 4360, LIST 4343, and BEEP 4384.
- Be concurrently enrolled in EDML 4370, EDML 4371, EDML 4372, and LIST 4378.

Middle-level certification candidates spend 144 hours in the field during the Inquiry Semester. This involves two days (Tuesday and Thursday) each week in assigned schools working with supervising teachers, university faculty, and middle-level students. One-half of each day will be spent in the classroom working with the 4th-8th grade students under the supervision of the district teacher and university faculty. The other half of the day will be spent in UT Arlington classroom activities.

Internship for Secondary Certification is a one-semester experience for students. Eligible secondary certification students must **make application (www.uta.edu/coed/fieldexperience/)** for secondary internship before the deadline early in the semester **preceding** the internship assignment. Secondary intern applications are then reviewed by partner schools, and students are subsequently assigned by the Office of Professional Development and Field Experience to appropriate school sites (based on student's area of specialization and the partner school's needs). Criminal background checks are required by school districts prior to field experience school placement.

For purposes of determining eligibility for internship, all applicable grades, including those earned at other institutions, will be used in the calculation of grade point averages. Students are urged not to take more than 15 semester credit hours during the internship semester.

Students must attend a mandatory orientation to become familiar with the Internship Handbook and the Internship requirements prior to beginning the internship assignment.

To be eligible to enter the Internship in the secondary certification program, the student must:

- Have filed a degree plan with major academic department and have provided a copy to the College of Education and Health Professions advising office.
- Have an overall (or last 60 hours) GPA of 2.75.
- Have a minimum GPA of 2.75 in all College of Education and Health Professions certification courses with a grade of C or better in all College of Education and Health Professions certification courses.

For fifteen weeks during the UT Arlington semester, secondary interns will spend five instructional clock hours and a one-hour planning period per week in their assigned schools working with mentor teachers and secondary students.

Residency

Early Childhood - 6th Grade Residency is a full-time supervised and directed practice in an approved Pre-K- 6th grade classroom. Residents will have at least two placements. Residents who are employed as intern/resident early childhood teaching assistants in the fall will remain in a kindergarten setting for Residency. Residency is in the spring and begins and ends with the public school district calendar.

Middle-level 4th-8th Grade Residency (EDML 4677) is the final semester where students repeat the sequence of field assignments just as in the Inquiry semester. Students spend 720 hours in the field for a full-time assignment. Students attend faculty meetings, parent teacher conferences and professional development experiences as well as regularly scheduled university seminars that involve presentations by partner school principals and university faculty. Residency is in the spring and begins and ends with the public school district calendar.

Residency for Secondary Certification immediately follows Internship for students seeking Secondary certification and All-level certification. It is a **one-semester experience scheduled to begin and end with the public school district calendar** that involves working full-time with mentor teachers and grades 8-12 students in the school setting five days a week. Residency is considered full-time enrollment.

Students must attend a mandatory orientation to become familiar with the Resident Handbook and the Residency requirements prior to beginning the residency assignment.

For purposes of determining Residency eligibility for all education students, the following must be completed:

- 2.75 GPA overall or last 60 hours.
- 2.75 GPA in all College of Education and Health Professions certification courses with a grade of C or better in all College of Education and Health Professions certification courses.
- Additional requirements specific to each certification level.

Oral Communication Competency Requirement

All students will satisfy the oral communication requirement during the professional development sequence leading to initial teacher certification. Students must complete the Internship/Inquiry semester with an acceptable evaluation of oral communication by university professors and assigned mentors in the field.

Degrees with Teacher Certification

Early Childhood

Bachelor of Arts Degree in Interdisciplinary Studies with Early Childhood - Grade 6 Teacher Certification

English

1301 & 1302

Literature

2309, 2319, or 2329

Liberal Arts

Three hours from any literature or social/cultural studies, fine arts, or philosophy (above freshman level)

History

1311 & 1312 (One Texas History may be taken in place of one US History: History 3363 or 3364.)

Political Science

2311 & 2312

Mathematics

1302 & 1330; 1331 & 1332

Science

BIOL 1441 & 1442 (recommended); and choose 2 courses from SCIE 3301, 3302, 3303, 3304, or 3305

Social/Cultural Studies

Three hours of designated courses in classical studies, communication, economics, humanities, linguistics, political science, anthropology, sociology, or women's studies.

Fine Arts

Three hours from art, dance, music, theatre arts, or other approved course. (MUSI 3305 or ART 1301 recommended).

Foreign Language

Spanish recommended (Intermediate level: 2313 & 2314)

General Elective

One hour course approved by advisor.

Early Childhood Support System

Twelve hours from courses that focus on children, families, schools and communities, especially those concerned with diversity and learning (PSYC, SOCI, SOCW, WOMS).

Education Courses

ECED 4317, 4318, 4305; BEEP 4306; EDTC 4301, & LIST 4373, 4374, & 4376.

Internship

ECED 4310, 4311, & BEEP 4384

Residency

ECED 4314, 4319, & 4687

Total

120 hours

Bachelor of Arts Degree in Child Studies with Early Childhood - Grade 6 Bilingual Teacher Certification (Community Colleges and UT Arlington Articulated Degree)

Core Course Requirements Chosen From Community College Courses (taken before transferring to UT Arlington)

English
1301 & 1302

Literature
Three hours taken from World or American Literature (ENGL 23XX)

History
1301 & 1302

Government
2301& 2302 or 2305 & 2306

Mathematics (3-4 hours)
1314 or 1414

Biology (8 hours)
1406 & 1407 (recommended)

Psychology
PSYC 2301 or 2314

Computer Literacy
COSC 1300 or 1401

Speech
SPCH 1311 or 1315

Fine Arts
ART 1301 or MUSI 1306

Physical Education
1164

Cultural Studies
Three hours from CUST 2370; HIST 2321, 2322, 2380, 2316, 2317, 2381; PHIL 1301, 2306, 2307; or RELI 1304.

Multicultural Education (replaces BEEP 4306)
EDUC 1325 or TECA 1303

Special Needs/Populations (replaces ECED 4310)
CDEC 1359 or EDUC 2301

Bilingual Education(replaces BEEP 3382)
EDUC 1301 or EDTC 1321

Spanish
2311 & 2312 or 2313 & 2315

Mathematics
1350 & 1351

Science
Two science courses (prefix BIOL, CHEM, GEOL, PHYS)

UT Arlington Courses(to be completed in the fall of the first year at UT Arlington)

Literacy
BEEP 3381, 4382, 4384; ECED 4317, 4318

Foreign Language
Heritage speakers: SPAN 3304 & 3305
Non-heritage speakers: SPAN 3303 & either 3314 OR 3315

Other courses to be completed in the first year at UT Arlington
SPAN 4317 or HIST 3368; EDTC 4301, LIST 4373, 4374 & 4376

Internship
BEEP 4311 & 4314

Residency
BEEP 4319 & 4687

Total
126 - 127 hours

Bachelor of Arts Degree in Interdisciplinary Studies with Early Childhood - Grade 6 Bilingual Teacher Certification

English

1301 & 1302

Literature

2309, 2319, or 2329

Liberal Arts

Three hours from literature or social/cultural studies, fine arts, or philosophy (above freshman level)

History

1311 & 1312 (One Texas History may be taken in place of one US History: History 3363 or 3364.)

US Political Science

2311 & 2312

Mathematics

1302, 1330, 1331, & 1332

Science

BIOL 1441 & 1442 (recommended); and choose two (2) courses from SCIE 3301, 3302, 3303, 3304, or 3305.

Social/Cultural Studies

Three hours of designated courses in classical studies, communication, economics, humanities, linguistics, political science, anthropology, sociology, or women's studies.

Fine Arts
MUSI 3305 or ART 1301

Foreign Language
SPAN 2313 & 2314 &
Heritage speakers: SPAN 3304 & 3305
Non-heritage speakers: SPAN 3303 & either 3314 OR 3315

Bilingual Cultural Studies
SPAN 4317, HIST 3368 or any MAS 23XX+

Courses to be completed in the first year of the COED program sequence
BEEP 3381, 3382; ECED 4317, 4318; EDTC 4301; LIST 4373 & 4376

Literacy
BEEP 4382, 4384, & 4306

Internship

BEEP 4310, 4311, & 4314

Residency
BEEP 4319 & 4687

Total
122 hours

Bachelor of Science Degree in Interdisciplinary Studies with Early Childhood - Grade 6 Teacher Certification

English

1301 & 1302

Literature

2309, 2319, or 2329

Liberal Arts

Three hours from literature or social/cultural studies, fine arts, or philosophy (above freshman level)

History

1311 & 1312 (One Texas History may be taken in place of one US History: History 3363 or 3364.)

Political Science

2311 & 2312

Mathematics

1302, 1330, 1331 & 1332

Science

BIOL 1441 & 1442 (recommended)

Social/Cultural Studies

Three hours of designated courses in classical studies, communication, economics, humanities, linguistics, political science, anthropology, sociology, or women's studies.

Fine Arts

Three hours from art, dance, music, theatre arts, or other approved course. (MUSI 3305 or ART 1301 recommended).

Math/Science/Technology
Six hours approved by COED advisor.

Science
Two courses selected from 3301, 3302, 3303, 3304, or 3305

General Elective
One-hour course approved by advisor.

Early Childhood Support System

Twelve hours from courses that focus on children, families, schools and communities, especially those concerned with diversity and learning (PSYC, SOCI, SOCW, WOMS).

Courses to be completed in the first year of the COED program sequence
ECED 4317 & 4318; EDTC 4301; LIST 4373, 4374, & 4376

Literacy
ECED 4305, BEEP 4306

Internship
ECED 4310, 4311; BEEP 4384

Residency
ECED 4314, 4319, & 4687

Total
120 hours

Middle Level

Bachelor of Arts Degree in Interdisciplinary Studies with Middle-Level (Grades 4-8) Teacher Certification (English/Language Arts/Reading/Social Studies)

English
1301 & 1302, 2350; 3371, 3372 or 4371; 3339, 3361 or 4380; 4366 & 4370

Literature
ENGL 2309, 2319, or 2329

Liberal Arts
Three hours from literature or social/cultural studies, fine arts, philosophy (above freshman level)

U.S. History

1311 & 1312 (One Texas History may be taken in place of one US History: History 3363 or 3364)

History of Civilization

2301 & 2302

Texas History

3363 & 3364

Political Science

2311 & 2312; 3303, 3306, 3307, 3311, 3327, 4314, 4324, 4328, or 4330

Foundations of Economics

FECO 3310 (must apply through the College

of Business Advising Center, offered only during the spring semester)

Mathematics

1302 & 1330

Science

BIOL 1441 & 1442 (recommended)

Social/Cultural Studies

Three hours of designated courses in classical studies, communication, economics, humanities, linguistics, political science, anthropology, sociology, or women's studies.

Fine Arts

Three hours from art, dance, music, theatre arts, or other approved course. (MUSI 3305 or ART 1301 recommended).

Foreign Language

Spanish recommended (Intermediate level: 2313 & 2314)

Geography

One course approved by COED advisor.

Courses to be completed in the first year of the COED program sequence

EDML 4300, 4350, & 4360

Literacy

LIST 4343, BEEP 4384, EDTC 4301

Inquiry Semester (Internship)

EDML 4370, 4371 & 4372

Residency (6 hours)

EDML 4677

Total

122 hours

Bachelor of Science Degree in Interdisciplinary Studies with Middle-Level (Grades 4-8) Math/Science Teacher Certification

English

1301 & 1302

Literature

2309, 2319, or 2329

Liberal Arts

Three hours from literature or social/cultural studies, fine arts, philosophy (above freshman level)

History

1311 & 1312 (One Texas History may be taken in place of one US History: History 3363 or 3364.)

Political Science

2311 & 2312

Mathematics

1302, 1308, 1330, 1331, 1332, and (Capstones I & II) 4350 & 4351

Science

BIOL 1441 & 1442 (recommended)

General Science

SCIE 3301, 3302, 3303, 3304, & 3305

Social/Cultural Studies

Three hours of designated courses in classical studies, communication, economics, humanities, linguistics, political science, anthropology, sociology, or women's studies.

Fine Arts

Three hours from art, dance, music, theatre arts, or other approved course. (MUSI 3305 or ART 1301 recommended).

Math/Science/Technology

Twelve hours approved by COED advisor.

Courses to be completed in the first year of the COED program sequence

EDML 4300, 4350, & 4360

Literacy

LIST 4343, BEEP 4384, EDTC 4301

Inquiry Semester (Internship)

EDML 4370, 4371 & 4372; LIST 4378, SCIE 4101

Residency (6 hours)

EDML 4677

Total

123 hours

Bachelor of Science Degree in Interdisciplinary Studies with Middle-Level (Grades 4-8) Generalist Teacher Certification

English

1301, 1302, 2350; 3371, 3372 or 4370; 3339, 3340, 3344, 3345, 3346, 3361 or 3362; 4366

Literature

2309, 2319 or 2329

Liberal Arts

Three hours from literature or social/cultural studies, fine arts, philosophy (above freshman level)

History

1311 & 1312 (One Texas History may be taken in place of one US History: History 3363 or 3364.)

Political Science

2311 & 2312

Mathematics

1302, 1308, 1330, 1331, 1332, and (Capstones I & II) 4350 & 4351

Science

BIOL 1441 & 1442 (recommended)

General Science

Two courses from SCIE 3301, 3302, 3303, 3304, & 3305

Social/Cultural Studies

Three hours of designated courses in classical studies, communication, economics, humanities, linguistics, political science, anthropology, sociology, or women's studies and three hours of any junior-level (33XX) course.

Fine Arts

Three hours from art, dance, music, theatre arts, or other approved course. (MUSI 3305 or ART 1301 recommended).

Geology

1425 & 1426

Economics

Course approved by COED advisor

Courses to be completed in the first year of the COED program sequence

EDML 4300, 4350, & 4360

Literacy

LIST 4343, BEEP 4384, EDTC 4301

Inquiry Semester (Internship)

EDML 4370, 4371 & 4372; LIST 4378

Residency (6 hours)

EDML 4677

Total

127 hours

Curriculum and Instruction Department Faculty

Chair

Professor J. Smith

Professors

Cavallo, Crow, Hadaway, Rosado, Schwartz

Associate Professors

Davis, Fox, Kribs-Zaleta, Leffingwell

Assistant Professors

Brown, Daza, Hungerford-Kresser, Lee, Ruebel, Semingson, Theriot, Tice, Wiggins

Clinical Faculty

Arrowood, Collins, Melton, C. Smith

Department of Educational Leadership and Policy Studies

The Department of Educational Leadership and Policy Studies offers one undergraduate minor/certificate in Leadership. This 15-hour Leadership Minor/Certificate program prepares student to be relational, ethical and global leaders armed with the knowledge and skills to make a positive contribution in the workplace, the communities in which they live and throughout the world. The courses are designed to help students explore the dimensions of leadership so that they may engage in leadership that is constructive,

purposeful, and oriented toward improving the human condition.

Required Course:

EDAD 2330: Theories in Leadership (3-0)

EDAD 4330: Capstone in Leadership Studies (3-0)

Elective Course in each of the following areas:

Ethics (3 hours)

Global Issues (3 hours)

Field Experience (Travel/trip or Service Learning course - 3 hours)

Admission Requirements:

The minor is open to all degree-seeking students. The certificate is available to degree and non-degree-seeking students enrolled at UT Arlington.

The Leadership Minor and Certificate program is a joint initiative between the Department of Educational Leadership and The Leadership Center in the Division of Student Affairs. Program management and oversight will be shared by the Chair and Director of these two areas. Interested students should initiate a request for the preparation of their program by sending an email to the following contacts:

Dr. Adrienne Hyle, Department of Educational Leadership and Policy Studies

College of Education and Health Professions, 105B Trimble Hall

817.272.0149 - ahyle@uta.edu

Dr. Stephanie Brown, The Leadership Center University Center, Lower Level - B140

817.272.2963 - sabrown@uta.edu

For information on graduate programs in the Department of Educational Leadership and Policy Studies, see the Graduate Catalog.

Department of Kinesiology

The Department of Kinesiology is within the College of Education and Health Professions and offers three undergraduate degrees. The three degrees are the Bachelor of Arts in Kinesiology Pedagogy degree with All-level teacher certification for individuals who wish to teach in the K - 12 setting, the Bachelor of Science in Exercise Science degree for individuals who wish to pursue a career in one of the Allied Health Sciences, and the Bachelor of Arts or Science degree in Athletic Training for those who wish to pursue a sports medicine career focused on the prevention, evaluation, and rehabilitation of musculoskeletal injuries. The Bachelor of Science in Athletic Training also offers All-level Teacher Certification as an option.

The College of Engineering

Dean: Bill D. Carroll, Ph.D., P.E.
634 Nedderman Hall • Box 19019 •
817-272-2571
www.uta.edu/engineering

Overview

Engineering is the profession in which a knowledge of the mathematical and natural sciences gained by study, experience and

practice is applied with judgment to develop ways to economically utilize information, materials and forces of nature for the benefit of humanity. Engineering is a rewarding and satisfying career for those men and women with the talent and determination to meet the challenges of rapidly changing technologies and complex societal problems in urgent need of solutions.

The College of Engineering provides the opportunity for study in a wide variety of engineering disciplines under the guidance of an excellent faculty. Baccalaureate degree programs are offered in aerospace engineering, civil engineering, computer engineering, computer science, electrical engineering, industrial engineering, mechanical engineering, and software engineering. The programs in aerospace engineering, civil engineering, computer engineering, electrical engineering, industrial engineering, mechanical engineering, and software engineering are accredited by the Engineering Accreditation Commission (EAC) of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 - telephone (410) 347-7700. The program in computer science is accredited by the Computing Accreditation Commission (CAC) of ABET. ABET, Inc., was formerly known as the Accreditation Board for Engineering and Technology. Graduate degrees are offered in each of these disciplines and in other areas of specialization: biomedical engineering and materials science. (All of these graduate programs offer both master's and doctoral degrees except software engineering, engineering management, logistics, and systems engineering, which offer a master's degree only.) A combined BS (Biology)/MS (Biomedical Engineering) degree is available for students interested in tissue engineering and biotechnology; see the Other Engineering Subject Areas section and the Biology section of the Undergraduate Catalog and the Biomedical Engineering section of the UT Arlington Graduate Catalog for details.

Preparation in High School for Admission to the College of Engineering

For students intending to pursue a major in engineering, the recommended curriculum is defined by the "Recommended Texas High School Program Graduation Requirements" approved by the State Board of Education beginning with School Year 2004-2005. This listing below reflects the current State Board recommendation and expands upon the University requirements stated earlier in this catalog:

English	**4 units**
Mathematics	**4 units**
Algebra I, II	2 units
Geometry	1 unit
Additional Advanced Mathematics*	1 unit
Science	**4 units**
Chemistry	1 unit
Physics	1 unit
Other Science Courses	2 units

Computer Science**	**1 unit**
Single Foreign Language***	**2 units**
Social Science	**4 units**
U.S. History	1 unit
World History Studies	1 unit
World Geography	1 unit
U.S. Government	1/2 unit
Economics	1/2 unit
Other Courses	**5 units**
TOTAL	**24 units**

*For the College of Engineering, this must explicitly include trigonometry.

**Most desirable syllabus would include computer programming in C, C++ or Java, and instruction in computer applications including word processing, spreadsheets, and database management.

***For the College of Engineering, two levels of the same language are required.

In addition to the above, an additional year of advanced mathematics such as calculus is strongly recommended. Further, students planning careers in the health professions or biomedical engineering should take one year of biology. In all areas, students are urged to take advantage of advanced placement opportunities and honors programs. A student who enrolls without having completed the above courses will not be optimally prepared, and the duration of the student's undergraduate program will likely be extended. In particular, the engineering programs offered by the college are based upon a student being fully prepared to begin study with the following courses:

MATH 1426 Calculus I

PHYS 1443 General Technical Physics

Prerequisites for the above courses are considered deficiencies and are not counted toward an engineering degree.

Admission to the College of Engineering

Admission to the College of Engineering is based on the University's undergraduate admission requirements plus the following additional admission criteria for the College of Engineering. Students may be admitted to the College of Engineering in two ways: directly into a major or into a pre-major. A student is admitted directly into a major only if all admission criteria are met.

Students Entering Directly from High School

Students entering directly from high school will be evaluated on the basis of the following admission criteria:

- Students must meet the UT Arlington admissions requirements.

- Students must present an SAT score of 1200 or higher or a composite ACT score of 27 or higher.
- Students must have completed the prerequisites necessary to enroll in MATH 1426 and PHYS 1443.
- Students for whom English is the primary language must present a minimum of two high school units in a single foreign language. Students otherwise qualified, but not presenting such credit, will be admitted with a foreign language deficiency that must be removed prior to graduation.

As noted, students who meet these criteria are admitted directly into a major and those that do not meet all of these criteria are reviewed and considered on individual merits for admission into a pre-major.

Students Entering with Transfer Credit

Transfer students include those from other units within UT Arlington as well as those from other educational institutions. Transfer students from outside UT Arlington must furnish an official transcript (or copy) to the Dean of Engineering and/or department to which they are applying to permit an evaluation of all college level work completed. Transfer students with less than 24 hours of transferable credit are admitted under the criteria for students entering directly from high school.

Transfer students with 24 hours or more of transferable credit must meet the following requirements:

- Students must meet the UT Arlington admissions requirements.
- Students must have completed at least the prerequisites necessary to enroll in MATH 1426 and PHYS 1443.
- Students for whom English is the primary language must present a minimum of two high school units in a single foreign language. Students otherwise qualified, but not presenting such credit, will be admitted with a foreign language deficiency that must be removed prior to graduation.
- Students must have a three-calculation GPA of 3.0 or above, calculated on transferred credits which include at least 15 hours of math, science, and engineering courses applicable to the degree they are seeking. (See Academic Regulation 10 below.)
- Students must comply with the C-grade rule. (See Academic Regulation 5 below.) Consequently, the student must be prepared to repeat any such courses until a grade of C or higher is obtained prior to enrolling in any course for which such courses are a prerequisite. Note: this applies to all transfer students whether from other educational institutions or from within UT Arlington.

As noted, students who meet these criteria are admitted directly into a major and those that do not meet all of these criteria are reviewed and considered on individual merits for admission into a pre-major.

Placement in an Engineering Major

Students meeting all admission criteria for entry directly from high school or for entry with transfer credit will be admitted as a program major: AE (Aerospace Engineering), CE (Civil Engineering), CpE (Computer Engineering), EE (Electrical Engineering), IE (Industrial Engineering), ME (Mechanical Engineering), CS (Computer

Science) or SE (Software Engineering). A student who intends to major in the College of Engineering but is unsure of which major may be admitted as Engineering Undecided. Students admitted as an intended major can apply to their department for advancement into the major when conditions specified by the department are met.

Major	Meet All Criteria	Do NOT Meet All Criteria
Aerospace Engineering	AE	AE intended
Civil Engineering	CE	CE intended
Computer Engineering	CpE	CpE intended
Electrical Engineering	EE	EE intended
Industrial Engineering	IE	IE intended
Mechanical Engineering	ME	ME intended
Computer Science	CS	CS intended
Software Engineering	SE	SE intended

Or Engineering Undecided

Admission into the Professional Program

Students who have successfully completed the initial program of studies may apply to their department for advancement to the professional program. Prior to admission to the professional program, students are required to demonstrate their intellectual talent, work habits, and professional ethics to warrant acceptance for study toward an engineering or computer science degree.

Hereafter, the term "pre-professional courses" is used for courses required in the first two years of the degree program as specified by the department, and the term "professional courses" is used for courses required in the third and fourth years of the degree program. The professional program includes students who have been accepted by an engineering department into the professional program course sequence. An official degree plan is filed upon acceptance into this category. For advancement to a department's professional program, students must meet the following requirements:

1. Academic performance: Students must have completed all pre-professional courses with a grade of C or better, complied with the Three-Attempt Rule, and achieved a minimum three-calculation GPA as specified by the department. Refer to the College of Engineering Academic Regulations and individual department program descriptions for specific requirements in the desired program.

2. Limitations on Enrollment: The University and the College of Engineering reserve the right to limit enrollment in any program, based on the availability of facilities and staff. To achieve such limitations, grade point averages and other

measures of student potential beyond the minimum stated above may be applied.

Competence in Oral Communication and Computer Use

Students in engineering satisfy the oral communication requirement by successfully completing COMS 3302, Professional and Technical Communication. The various programs in the College of Engineering have different requirements for demonstrating computer literacy. Students should consult their particular degree program for details.

College of Engineering Academic Regulations

All students pursuing a degree in one of the College's academic programs must abide by the academic regulations of the University and the following additional rules established by the College of Engineering:

Regulations regarding work at other institutions

1. Enrollment in Other Institution(s): To ensure adequate coverage of needed material, once enrolled at UT Arlington as an engineering major, a student must obtain written permission from the department before enrolling in courses intended to be transferred to UT Arlington for credit toward a UT Arlington engineering degree.

2. Transfer Courses: Only equivalent courses in a program accredited by the Accreditation Board for Engineering and Technology (ABET) or those freshman and sophomore courses accepted by the College of Engineering or the student's major department can be counted toward an engineering degree.

3. Validation of Transfer Credit: Transfer credit that constitutes a part of a continuing course sequence in the same area will be validated only upon satisfactory completion of the succeeding course in the sequence at UT Arlington. Students whose performance in the subsequent courses at UT Arlington is poor may be required to repeat courses taken elsewhere.

Regulations regarding work at UT Arlington

4. Academic Honesty: The College of Engineering takes academic honesty and ethical behavior very seriously. Engineers are entrusted with the safety, health, and well being of the public. Students found guilty of academic dishonesty will be punished to the full extent permitted by the rules and regulations of UT Arlington.

5. C-Grade Rule: A grade of D or lower in a pre-professional course indicates unsatisfactory preparation for further engineering education. Any such course in which a D or lower is received must by repeated before enrolling in any course for which it is a prerequisite. This requirement is subject to the Three-Attempt Rule. A student unable to raise his or her grade to at least a C in a pre-professional course within three enrollments (attempts) shall be required to change his or her major to a field outside of the College of Engineering.

6. English as a Foreign Language: Courses in English as a foreign language will not substitute for either ENGL 1301 or 1302.

7. Foreign Language Deficiency Removal: Students admitted to the College of Engineering with a deficiency in foreign language must remove that deficiency prior

to graduation by taking two courses in a single modern or classical language totaling not less than six semester hours credit (eight semester hours are required in the current UT Arlington introductory modern and classical languages sequence).

8. Academic Load: A student may not enroll in more than the University's maximum permitted academic load without receiving the permission of the student's department and the Dean of Engineering. The College of Engineering considers 12 semester hours in the fall and spring terms and nine semester hours in the 11-week summer term to be a minimum "full load" for undergraduates.

9. Three-Attempt Rule: A student may not attempt a course (at UT Arlington and/or at any other institution) more than three times and apply that course toward an engineering degree. Enrollment in a course for a period of time sufficient for assignment of a grade, including a grade of W, is considered an attempt.

Regulations regarding academic standing

10. Three-Calculation GPA: The College of Engineering uses three GPA calculations to evaluate students for admission and continuation. These calculations employ only the grades received in courses that are applicable to the engineering degree being sought. Any references in this catalog to the three-calculation GPA requirement mean that the student's GPA must meet or exceed the requirement in each of the following three categories:

- all courses
- all math, science, and engineering courses, and
- all courses, if any, taken in the major subject(The college will use the University's current grade-repeat policy or grade-exclusion policy in determining the three-GPA calculations.)

11. Satisfactory Academic Standing: An engineering student is in satisfactory academic standing if the student is not on University probation and at the same time meets the GPA requirements of his/her major program. (See the major department section of the catalog for the requirement.)

12. College of Engineering Probation: Students in an engineering pre-major or classified UENG will be placed on College of Engineering probation if any of the three parts of their three-calculation GPA falls below their program's requirement for advancement to the professional program. Students in an engineering major will be placed on College of Engineering probation if their major GPA or overall GPA falls below their program's requirement for graduation (2.0 for all programs). A student's academic standing is determined as soon as grades are reported by the Registrar at the end of each semester. Depending on the circumstances, a student on College of Engineering probation may have restrictions on course load or course selection, may be given specific course grade requirements, and ultimately may be required to change his/her major to one outside of the College of Engineering.

Fees

In addition to fees applicable to the entire University, each engineering course carries a "designated tuition" charge (authorized by the Board of Regents per statute 54.0513) detailed under Description of Tuition and Fees.

Advising

All new and continuing students whose major is Engineering Undecided will be advised in the Office of the Dean of Engineering prior to registration. Those attending orientations in summer will be advised at that time. Students not attending an orientation, or students entering UT Arlington in the spring and summer semesters, should make appointments for such advising through the Office of the Dean of Engineering.

All students, when reporting for advising, must have a transcript (original or copy) of high school course work, a transcript (original or copy) of any college transfer credit applicable to an engineering degree, and a copy of SAT scores or other scores that have been used as a basis for admission. New students will not be able to register for classes without first being counseled and obtaining an approval to register.

Continuing students in all engineering majors or pre-majors must receive advising by their major departments before registering, if required by the department. One period in October and another in March are designated for engineering counseling. Students must be cleared (showing that they have been counseled) before proceeding with registration.

The advising goal for students who have not yet attained professional program status is to strengthen their academic background sufficiently so that they are able to subsequently complete courses in their engineering degree plans. To this end, a student's advisor may require him or her to enroll in fewer courses than specified by the University and may require him or her to take courses for which credit has already been received. See individual department program descriptions for requirements.

The College of Engineering's Counseling and Advising Center, located in 242 Nedderman Hall, houses the Co-op program and coordinates tutoring, assessment, and academic advising, to engineering students.

Minors in the College of Engineering

Requirements for a Minor in Aerospace Engineering

To receive a minor in Aerospace Engineering, a student must complete the following three courses with a grade of C or better in each:

MAE 2312 (Solid Mechanics)
MAE 2315 (Fluid Dynamics), or MAE 2314 (Fluid Mechanics)
MAE 2323 (Dynamics)

and must complete three courses with a grade of D or better in each, selected from among the following seven:

MAE 3303 (Aerodynamics of Compressible Flow)
MAE 3304 (Astronautics)
MAE 3405 (Flight Dynamics)
MAE 3306 (Flight Performance and Stability)
MAE 3315 (Aerospace Structure Statics)
MAE 3316 (Aerospace Structure Dynamics)
MAE 4321 (Propulsion) as well as all required prerequisites for the three chosen coures.

Requirements for a Minor in Computer Science

To receive a minor in Computer Science, a student must not be receiving his/her major degree from the Computer Science Department and must complete all courses listed with a grade of C or better in each course. Any substitutions must be approved in advance by the department chairperson.

To receive a minor in Computer Science, a student must complete the following courses with a grade of C or better in each:

CSE 1320 Intermediate Programming
CSE 1325 Object-Oriented Programming in Java
CSE 2315 Discrete Structures
CSE 2320 Algorithms and Data Structures
and any two 3000 or 4000 level courses with a grade of C or better in each, as well as all required prerequisites for the chosen courses.

Requirements for a Minor in Computer Applications

To receive a minor in Computer Applications, a student who is not in a College of Engineering major must complete the following courses with a grade of C or better in each:

CSE 1310 Introduction to Computers and Programming
CSE 1320 Intermediate Programming
CSE 1325 Object-Oriented Programming in Java
CSE 2321 Data Structures for Non-Engineers
CSE 3310 Software Engineering
CSE 3330 Database Systems and File Structures

Requirements for a Minor in Electrical Engineering

To receive a minor in Electrical Engineering, a student must complete the following four courses with a grade of C or better in each:

EE 2315 Circuit Analysis I
EE 2446 Circuit Analysis II (with lab)
EE 2303 Electronics I
EE 2307 Electromagnetics
and must complete two courses with a grade of C or better in each selected from among the following four:

EE 3444 Electronics II (with lab)
EE 3302 Power Systems Fundamentals
EE 3317 Linear Systems
EE 3341 Digital Circuit Design (with lab)
as well as all required prerequisites for the two chosen courses.

Requirements for a Minor in Industrial Engineering

To receive a minor in Industrial Engineering, a student must complete the following courses with a grade of C or better in each:

IE 3301, IE 3312, IE 3315, plus any three upper division IE courses for which the prerequisites are satisfied.

Requirements for a Minor in Mechanical Engineering

A minor in Mechanical Engineering requires at least 18 semester credit hours in Mechanical Engineering courses. To receive a minor in Mechanical Engineering, a student must complete MAE 2312 (Solid Mechanics), 2323 (Dynamics), MAE 3310 (Thermodynamics I), and minimum 9 additional semester credit hours from: MAE 2314, 3183, 3242, 3311, 3314, 3318, 3319, 3324, 3344, 3360, 4310, 4342, 4344.

Requirements for a Minor in Materials Science and Engineering

To receive a minor in Materials Science and Engineering, a student must complete 18 hours of the following courses with a grade of C or better in each course. Courses must be approved in advance by the MSE undergraduate program advisor. A student must complete:

MSE 3300 Introduction to Materials Science and Engineering
MSE 3324 Structure and Mechanical Behavior

of Materials
MSE 4320 Nanoscale Materials, and three of the following courses for which the prerequisites are satisfied.
MSE 4310 Polymer Material Science
MSE 4315 Introduction to Composites (MAE 4315 for MAE majors)
MSE 4336 Advanced Mechanical Behavior of Materials (MAE 4336 for MAE majors)
MSE 4337 Fatigue of Engineering Materials (MAE 4390 for MAE majors)
MSE 4338 Failure Analysis (MAE 4338 for MAE majors)
MSE 4339 Fracture Mechanics (MAE 4339 for MAE majors)
MSE 4390 Special Topics in Materials Science (e.g., electrical, optical and magnetic properties of materials)
CHEM 3307 Introduction to Polymer Chemistry
CHEM 3315 Introduction to Biophysical Chemistry
CHEM 3321 Physical Chemistry
CHEM 4303 Quantum Chemistry
CHEM 4318 Inorganic Chemistry
CHEM 4346 Advanced Synthetic Methods
MAE 3344 Introduction to Manufacturing Engineering
PHYS 3313 Introduction to Modern Physics
PHYS 3455 Electronics
PHYS 4324 Advanced Electricity and Magnetism
PHYS 4325 Solid State Physics
PHYS 4326 Introduction to Quantum Mechanics

Requirements for a Minor in Nuclear Engineering

To receive a minor in Nuclear Engineering, a student must complete the following courses with a grade of C or better in each:

NE 3301 Introduction to Nuclear Engineering
NE 4302 Nuclear Reactor Theory / Analysis
NE 4303 Reactor Thermal Hydraulics

plus any three of the following courses with a grade of C or better in each:

MAE 3311 Thermodynamics II
MAE 3309 Thermal Engineering
MAE 3314 Heat Transfer
MAE 4347 Heat Exchanger Design
MAE 4310 Introduction to Automatic Control
EE 3302 Fundamentals of Power Systems
EE 4314 Control Systems
PHYS 3446 Nuclear and Particle Physics

No Minors have been approved for Civil Engineering.

Honors Degrees in Engineering

College of Engineering students who wish to graduate with an Honors Degree in Engineering must be members of the Honors College in good standing. They must complete the major degree requirements and the requirements of the Honors College, which include at least 24 hours of Honors course work while maintaining an overall GPA of 3.0 or greater. Honors Degree requirements are compatible with all departmental and college requirements, but specific requirements vary with each engineering department's program. It is particularly important that students pursuing an Honors Degree in Engineering consult carefully with an advisor in the College of Engineering and also in the Honors College before each registration to be sure all requirements are met.

Fast Track Master's Degrees in Engineering

The Fast Track Program enables outstanding UT Arlington senior undergraduate students in several disciplines to satisfy degree requirements leading to a master's degree in

that discipline while completing their undergraduate studies. When senior-level students are within 15 hours of completing their undergraduate degree requirements, they may take up to nine hours of graduate level coursework designated by the program to satisfy both undergraduate and graduate degree requirements. Interested UT Arlington undergraduate students should discuss this option with their advisors. Information is provided in the department section of this catalog, with details available in departmental offices.

At this time, there are Fast Track programs in the following undergraduate programs:

Aerospace Engineering leading to a Master's Degree in Aerospace Engineering
Computer Engineering leading to a Master's Degree in Computer Engineering
Industrial Engineering leading to a Master's Degree in Industrial Engineering
Mechanical Engineering leading to a Master's Degree in Mechanical Engineering
Physics leading to a Master's Degree in Materials Science and Engineering
Electrical Engineering leading to a Master's Degree in Electrical Engineering
Civil Engineering leading to a Master of Engineering Degree in Civil Engineering
Physics leading to a Master's Degree in Biomedical Engineering
Biochemistry leading to a Master's Degree in Biomedical Engineering

Professional Engineering Licensure

The protection of the public welfare requires that those who practice engineering do so ethically and competently. Professional licensure requires an individual to meet examination and practice requirements defined by the laws of the state or states in which he or she intends to practice.

The first step toward licensure as a Professional Engineer (P.E.) is to pass the Fundamentals of Engineering (FE) examination. Graduating seniors are permitted to take the FE examination during their final year. The FE examination is offered by the Texas Board of Professional Engineers in both the fall and spring semesters. Since this examination is over topics common to all engineering degree programs, students are strongly urged to avail themselves of this opportunity at a time when their academic preparation is at a peak.

Pre-med and Pre-law Studies

Students graduating with degrees in engineering occasionally choose to go on to medical schools or law schools. Those students are advised to consult early with the pre-med or pre-law advisors at UT Arlington so that additional requirements can be taken in a timely way. For example, a minimum set of additional courses for an engineer planning to apply to medical school consists of 4 chemistry courses (2 in general chemistry, 2 in organic chemistry), and 4 biology courses (2 in general biology plus genetics and animal physiology).

Cooperative Education

The Cooperative Education Program (Co-op Program) at UT Arlington is a partnership between the University and various organizations of businesses, government, and industries that provides students with an opportunity to obtain experience in their chosen engineering discipline by alternating periods of formal study with periods of work

or through a parallel program which allows students to work part time while taking courses at UT Arlington. This program enhances a student's education through work-related experiences and by association with participating professional engineers, and provides a competitive salary when working, as well.

Students who successfully complete the Co-op Program will receive cooperative education certificates and have this accomplishment entered on their transcripts. Co-op Program students are expected to register each work term in an engineering course (ENGR 2100, 3100, 4100, 3000) specified by the Director of the Co-op Program. The College of Engineering provides assistance in placing students with companies that are related to their specific needs and program of study.

Information on prerequisites for application and requirements for acceptance are available in the Cooperative Education Office, 242 Nedderman Hall, and on the College of Engineering Web site.

Engineering (ENGR)
The following courses are administered through the Office of the Dean of Engineering.

3000. SUPERVISED ENGINEERING WORK EXPERIENCE is a non-tuition bearing course.

2100, 3100, 4100. SUPERVISED ENGINEERING WORK EXPERIENCE. 1 hour credit. Course is for cooperative education students in engineering to be taken in the semester or summer they are employed. Students will prepare a technical report based upon their work experience. Students who complete the cooperative program will receive certificates and this will be entered on their transcript. Prerequisite: acceptance into and continuance in the Engineering Cooperative Education Program. May be repeated.

4191. AUTONOMOUS VEHICLE SYSTEM DEVELOPMENT-I. 1 hour credit.
ENGR 4191 (AVSD1) is the first course in a two-semester introduction to autonomous vehicle systems (AVS). AVSD1 is broad, conceptual, & theoretical. AVSD2 (worth 2 credits) is focused, practical, & applied. Introduces AVS (Autonomous Vehicles Systems), their history, missions, capabilities, operation. Introduces UAVs (unmanned aerial vehicles), UGVs (ground), USVs (surface water), & UUVs (underwater); levels of autonomy; coordiate systems & equations of motion; coordinate systems & transformations for payloads; sensors & operator interfaces; estimation of vehicle weight, power, & performance; manual remote control technologies & operations; embedded computer system design; & electromagnetic interference (EMI). Provides an environment for designing an autonomous vehicle system for a defined mission such that the developed autonomous systems can be used in national and international competitions. This course is team-taught by faculty in the CSE, MAE, and IE departments. **Prerequisite**: junior standing and admission to a professional engineering program.

4291. AUTONOMOUS VEHICLE SYSTEM DEVELOPMENT-II. 2 hours credit.
ENGR 4291 (AVSD2) is the second course in a two-semester introduction to autonomous vehicle systems (AVS). AVSD1 is broad, conceptual, & theoretical. AVSD2 (worth 2 credits) is focused, practical, & applied. **Prerequisite/corequisite**: ENGR 4191.

Nuclear Engineering (NE)

3301. INTRODUCTION TO NUCLEAR ENGINEERING. 3 hours credit.
Fundamentals of radiation, radiation decay, binding energy, types of interactions,

shielding, and radioisotopes, fission cross section, fission in a reactor, controlling fission chains, basic reactor model, reactor theory, reactor generations I, II, III, IV, review heat transfer terms, reactor coolant, Loss-Of-Coolant Accidents, reactor accidents, safety, emergency planning zone, nuclear fuel and fuel cycle, waste storage, decontamination and decommissioning, fusion power, regulating nuclear reactors, nuclear power economics and environment. **Prerequisite:** PHYS 1444; MATH 3319 or MAE 3360.

4302. NUCLEAR REACTOR THEORY/ANALYSIS. 3 hours credit.
The neutronics behavior of fission reactors, primarily from a theoretical, one-speed perspective. Criticality, fission product poisoning, reactivity control, reactor stability and introductory concepts in fuel management, followed by slowing down and one-speed diffusion theory. Multi-group diffusion theory, finite-difference and nodal methods, core heterogeneous effects, pin power reconstruction, thermal neutron spectra, fine group whole spectrum calculations and coarse group constant generation. **Prerequisite:** NE 3301.

4303. REACTOR THERMAL HYDRAULICS. 3 hours credit.
Thermal hydraulic processes involved in the transfer of power from the reactor core to the secondary systems of nuclear power plants. Major topics include an overview of nuclear heat generation, fluid dynamics with respect to the flow in reactor channels, steady state radial and axial temperature distribution, thermal analysis of fuel elements and subchannel flow, Hot channel factors, two-phase flow dynamics. **Prerequisite:** NE 3301; MAE 3314 or MAE 3309.

The Department of Bioengineering

220 Engineering Laboratory Building · Box 19138 • 817-272-2249
www.uta.edu/bioengineering

Overview

The Department of Bioengineering conducts two programs: a graduate-level course of studies leading to master's and doctoral degrees in Biomedical Engineering and a five-year course of studies leading to a Bachelor of Science degree in Biology and a Master of Science degree in Biomedical Engineering. However, undergraduate students in other engineering disciplines may develop a fundamental knowledge of the field of biomedical engineering. Students having permission from their department's undergraduate advisor may enroll in the courses listed below and obtain an emphasis in biomedical engineering. Ordinarily, the student will take these courses as technical electives, free electives and science electives. Interested students should contact the graduate advisor of the Department of Bioengineering for additional information.

Elective courses for students who wish to obtain an emphasis in biomedical engineering:

BE 1225: Introduction to Bioengineering
BE 4325: Fundamentals of Bioengineering

Recommended lists of courses for non-engineering majors are available from the program graduate advisor. Information can also be found on the BE Web pages.

Combined Degree Plan: Bachelor of Science in Biology and Master of Science in Biomedical Engineering

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 and a Bachelor of Science Degree in Biology. The curriculum is offered jointly by the College of Engineering and the College of Science. In this program, two areas of emphasis are offered: Medical Imaging, and Biomaterials and Tissue Engineering.

Description

Bioengineers use quantitative methods and innovation to analyze and to solve problems in biology and medicine. Students choose the bioengineering field to be of service to people, to partake in the 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 course work in the basic sciences, core engineering, biomedical engineering, 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 bioengineers 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.

Requirements

Regardless whether a student chooses Medical Imaging or Biomaterials and Tissue Engineering emphasis, after completion of 83 semester credit hours of the undergraduate courses from the list for the emphasis (below) and prior to taking any graduate course, the student must apply to the UT Arlington Graduate School for admission to the Bioengineering Department. A minimum grade point average of 3.0 in the 83 semester credit hours as well as a minimum average of 3.0 in the required English courses (1301 and 1302) and a minimum average of 3.0 in the required Mathematics courses (1426, 2425, 2326, and 3319) is required for admission to the Bioengineering Department. The student should also submit two letters of recommendation, one from the Bioengineering five-year program advisor or a faculty member and one from the Biology undergraduate advisor.

Medical Imaging Emphasis Courses

English

1301, 1302.

Mathematics

1426, 2425, 2326, 3319, 3345.

Natural Science other than Biology

PHYS 1443, PHYS 1444, CHEM 1441, CHEM 1442, CHEM 2181, CHEM 2182, CHEM 2321, CHEM 2322, CHEM 4311.

Biology

1441, 1442, 3444, 3301, 3310 (Cell Culture Lab), 3315, 4353, 5314, 5365.

Core Engineering

CSE 1310, EE 1347, EE 2307, EE 2440, EE 3308, EE 3317 or MAE 3317, EE 3318, EE 3330, EE 4315, or MAE 4345.

Bioengineering

1225, 4325, 5293, 5344, 5352, 5382, 5390, 5346, 5327, 5300 (Biomedical Optics Laboratory).

Human Physiology

BE 5309D or BE 5300 (Human Physiology) or BIOL 3345.

Other General Educational Courses

Literature

Three hours of English or modern and classical languages literature.

Liberal Arts/Speech

BIOL 3305 or COMS 3302.

Fine Arts

Three hours from art, dance, music, architecture, or theatre arts.

Political Science

2311, 2312.

History

1311, 1312.

Social/Cultural Studies

Three hours from social or cultural anthropology, archaeology, social/political/cultural geography, economics, sociology, classical studies, psychology, or linguistics.

Total (for degrees)

163 semester hours.

Suggested Course Sequence

Freshman Year

First Semester: BE 1225; MATH 1426; BIOL 1441; CHEM 1441; POLS 2311-Total Credit 17 hours.

Second Semester: MATH 2425; BIOL 1442; CHEM 1442; POLS 2312; ENGL 1301-Total Credit 18 hours.

Sophomore Year

First Semester: MATH 2326; PHYS 1443; CHEM 2321; CHEM 2181; HIST 1311; ENGL 1302-Total Credit 17 hours.

Second Semester: MATH 3319; PHYS 1444; CHEM 2322; CHEM 2182; HIST 1312; 3 hours of fine art-Total Credit 17 hours.

Junior Year

First Semester: EE 1347; EE 2440; CSE 1310; BIOL 3301; 3 hours of social/cultural studies-Total Credit 16 hours.

Second Semester: EE 2307; EE 3318; BIOL 3444; BIOL 3315; 3 hours of literature-Total Credit 16 hours.

Summer Session: BE 5309D or BE 5300 (Physiology) or BIOL 3345-Total Credit 3 hours.

Senior Year

First Semester: EE 3308; MAE 3317 or EE 3317; BE 5344; BIOL 4353; CHEM 4311; BIOL 3305 or COMS 3302-Total Credit 18 hours.

Second Semester: EE 3330; MATH 3345; EE 4315 or MAE 4345; BIOL 3310; BIOL 5365-Total Credit 15 hours.

Summer Session: BE 5300 (Biomedical Optics Lab)-Total Credit 3 hours.

Fifth Year

First Semester: BE 4325; BE 5346; BE 5382; BIOL 5314-Total Credit 12 hours.

Second Semester: BE 5327; BE 5352; BE 5390; BE 5293-Total Credit 11 hours.

Biomaterials and Tissue Engineering Emphasis Courses

English

1301, 1302.

Mathematics

1426, 2425, 2326, 3319.

Natural Science other than Biology

PHYS 1443, PHYS 1444, CHEM 1441, CHEM 1442, CHEM 2181, CHEM 2182, CHEM 2321, CHEM 2322, CHEM 4311.

Biology

1441, 1442, 3444, 3301, 3310 (Cell Culture Lab), 3312, 3315, 4346, 5314.

Core Engineering

CE 2312, CSE 1310, EE 2320, MAE 2381, MAE 2314, MAE 3183, MAE 3310, MAE 3317, MAE 3319, MAE 4345.

Bioengineering

1225, 4325, 5293, 5335, 5337, 5361, 5364, 5365, 5366, 5382, 5390.

Human Physiology

BE 5309D or BE 5300 (Human Physiology) or BIOL 3345.

Other General Educational Courses

Literature

Three hours of English or modern and classical languages literature.

Liberal Arts/Speech

BIOL 3305 or COMS 3302.

Fine Arts

Three hours from art, dance, music, architecture, or theatre arts.

Political Science

2311, 2312.

History

1311, 1312.

Social/Cultural Studies

Three hours from social or cultural anthropology, archaeology, social/political/cultural geography, economics, sociology, classical studies, psychology, or linguistics.

Total (for degrees)

163 semester hours.

Suggested Course Sequence

Freshman Year

First Semester: BE 1225; MATH 1426; BIOL 1441; CHEM 1441; POLS 2311-Total Credit 17 hours.

Second Semester: MATH 2425; BIOL 1442; CHEM 1442; POLS 2312; ENGL 1301-Total Credit 18 hours.

Sophomore Year

First Semester: MATH 2326; PHYS 1443; CHEM 2321; CHEM 2181; HIST 1311; ENGL 1302-Total Credit 17 hours.

Second Semester: MATH 3319; PHYS 1444; CHEM 2322; CHEM 2182; HIST 1312; 3 hours of fine art-Total Credit 17 hours.

Junior Year

First Semester: CE 2312; MAE 3310 or CHEM 3321; CSE 1310; BIOL 3301; 3 hours of social/cultural studies-Total Credit 15 hours.

Second Semester: MAE 2314; EE 2320; MAE 2381; BIOL 3444; BIOL 3315; 3 hours of literature-Total Credit 19 hours.

Summer Session: BE 5309D or BE 5300 (Physiology) or BIOL 3345-Total Credit 3 hours.

Senior Year

First Semester: MAE 3183; MAE 3317 or EE 3317; BE 5364; BIOL 3312; CHEM 4311; BIOL 3305 or COMS 3302-Total Credit 16 hours.

Second Semester: MAE 3319; BE 5382; MAE 4345 or EE 4315; BIOL 3310 (Cell Culture Lab); BIOL 4346-Total Credit 15 hours.

Summer Session: BE 5365- Total Credit 3 hours.

Fifth Year

First Semester: BE 5337; BE 5361; BE 4325; BIOL 5314-Total Credit 12 hours.

Second Semester: BE 5335; BE 5366; BE 5390; BE 5293-Total Credit 11 hours.

Fast Track Programs for a Master's Degree in Biomedical Engineering

The Fast Track Program enables outstanding senior 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.

Bioengineering Faculty

Chair

Professor Behbehani

Professors

Chuong, Liu, Tang

Associate Professor

Mario Romero-Ortega

Assistant Professors

Alexandrakis, Dave, Kim, Nguyen, Yang, Zuzak

Adjunct Professor

Eberhart

The Department of Civil Engineering

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www.uta.edu/engineering/ce

Requirements for a Bachelor of Science Degree in Civil Engineering

Pre-Professional Courses

English

1301, 1302.

Mathematics

1426*, 2425, 2326, 3319.

Science

CHEM 1465, PHYS 1443, 1444, GEOL 3340.

Civil Engineering

1104, 1105, 1350, 2210, 2311, 2313, 2331, 3301 (or IE 3301), 3305.

Mechanical/Aerospace Engineering

3309.

Other General Education Courses

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing. For civil engineering majors COMS 3302 must be used to satisfy this requirement.

Fine Arts

Three hours from art, dance, music, architecture or theatre arts.

Social/Cultural Studies

Three hours of social/cultural studies courses approved by the Undergraduate Assembly.**

History

1311, 1312.

Political Science

2311, 2312.

Professional Program Courses

Civil Engineering

General Civil Engineering Option: 3110, 3131, 3142, 3143, 3161, 3261, 3302, 3309, 3310, 3334, 3341, 3343, 4347, 4352, 4383, and 12 hours of senior technical electives. Nine hours of CE technical electives to be selected from three of the following five areas: Construction, Environmental, Geotechnical, Transportation or Water Resources. The remaining three hours may be from any area including Structures. Semester schedule for offering each course is available from the CE Advising Office.

Area of Concentration Options: Area of concentration degree options include construction engineering and management, environmental engineering, geotechnical engineering, structural engineering, transportation engineering and water resources engineering. The only difference in the various options of the degree is in the technical electives chosen in the senior year. Descriptions of CE degree options and semester schedule for course offerings are available in the CE Advising Office.

Total (BSCE degree)***

130 hours minimum. (More hours may be required to strengthen student's program or demonstrate proficiency. See Prior Preparation and Course Requirements.)

*The Mathematics Department requires MATH 1323 or passing a placement test provided by the Mathematics Department before enrolling.

**A list of approved social/cultural studies courses is available in the department office.

***Total hours will depend upon prior preparation and academic qualifications. Also, students who do not have two units of high school foreign language will be required to take modern and classical languages courses in addition to the previously listed requirements.

Refer to the College of Engineering section of this catalog for information concerning the following topics: Admission into Engineering, Admission into Pre-Engineering, Admission into the Professional Program, Counseling or Advising, Transfer and Change of Major Policies, Honors Program, Academic Regulations, Professional Engineering Registration, Cooperative Education,

Academic Probation, Repeating Course Policy and Academic Dishonesty.

Suggested Pre-Professional Course Sequence (First two years of degree program)

See pre-professional admission requirements in the College of Engineering section. Students should obtain departmental requirements and policy from the Department of Civil Engineering.

Freshman Year

First Semester: MATH 1426; CHEM 1465; CE 1104; CE 1105; ENGL 1301; HIST 1311-Total Credit 16 hours.

Second Semester: CE 1350; MATH 2425; PHYS 1443; POLS 2311; ENGL 1302-Total Credit 17 hours.

Sophomore Year

First Semester: MATH 2326; CE 2311; CE 2331; PHYS 1444; HIST 1312-Total Credit 16 hours.

Second Semester: MATH 3319; CE 2210; CE 2313; MAE 3309; GEOL 3340; COMS 3302-Total Credit 17 hours.

Suggested Professional Program Course Sequence

See professional program admission requirements in the College of Engineering section. Students should obtain departmental requirements and policy from the Department of Civil Engineering.

Junior Year

First Semester: CE 3305; CE 3341; CE 3343; CE 3261; CE 3110; CE 3143; CE 3161; Social/Cultural Studies Elective, 3 hours-Total Credit 17 hours.

Second Semester: CE 3309; CE 3310; CE 3334; CE 3302; CE 3301 (or IE 3301); CE 3131; CE 3142-Total Credit 17 hours.

Senior Year

First Semester: CE 4347; CE 4352; CE Technical Electives, 6 hours; Literature Elective, 3 hours-Total Credit 15 hours.

Second Semester: CE 4383; CE Technical Electives, 6 hours; POLS 2312; Fine Arts Elective, 3 hours-Total Credit 15 hours.

Admission Requirements

Requirements for admission as a Civil Engineering major are governed by the requirements stated under the College of Engineering section of this catalog.

Admission to the Professional Program

Requirements for admission to the professional program in Civil Engineering are in accordance with those of the College of Engineering with the following added stipulations:

- Application to the professional program is to be made to the CE Department during the semester that the advancement requirements are being completed.
- No professional civil engineering courses may be taken until the student is admitted into the professional program or obtains the written consent of the Department Chair.
- Each student must complete all pre-professional courses stipulated under "Requirements for a Bachelor of Science Degree in Civil Engineering" with a minimum grade of C in each course and a minimum

GPA of 2.25 in (1) all courses, (2) in all math, science, and engineering courses, and (3) in all CE courses.
• Upon receipt of the application, a student's record is individually reviewed including grades, academic and personal integrity, record of drops and course withdrawals, the order in which courses have been taken, the number of times a student has attempted a course for credit, and any other aspect of the student's record that may be deemed pertinent to admission.

The student must be admitted to the professional program and have an approved degree plan on file in order to graduate. The degree plan is generated upon entry to the professional program. Graduating seniors should apply to graduate during the next-to-last semester.

Prior Preparation and Course Requirements

The undergraduate baccalaureate degree in civil engineering is a four-year program and requirements for the degree are based upon prior high school preparation through either an honors or college track program. Students who have not had the appropriate prior preparation should contact the departmental advising office for a curriculum guide that will assist them in structuring a study plan that will include leveling courses. Students requiring leveling courses may require a period of time greater than four years to complete their undergraduate degree.

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 3.00 (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 3.30 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.

Minor Field of Study

The Civil Engineering program does not support the option of pursuing a minor in Civil Engineering by other engineering or non-engineering majors.

Academic Requirements

Academic performance requirements establishing satisfactory progress and grade point requirements are given in the College of Engineering section of this catalog.

Grade Requirements for CE Course Prerequisites

Civil Engineering majors (CE-Intended or CE) may not attempt a CE course until they have earned a grade of C or better in the prerequisite course(s).

Repeating Courses

Civil Engineering majors (CE-Intended or CE) may not attempt any course more than three times and apply that course toward a degree in civil engineering. Enrollment in a course for a period of time sufficient for assignment of a grade, including a grade of W, is considered an attempt.

Grounds for Dismissal from the CE Program

Civil Engineering majors (CE-Intended or CE) who the UTA Office of Student Conduct has found to have violated the UTA Code of Student Conduct a second time are subject to dismissal from the CE program.

Advising

Civil engineering majors are required to be advised by an assigned advisor during the period set aside each semester by the College of Engineering for this purpose. Students are responsible for meeting with their advisors during the advising period. Periods set aside for advising and registration may be different, and students who do not meet with their advisors during the regular advising period may not be able to complete registration. All students should consult the departmental bulletin board for advisors' names and periods set aside for advising.

Civil engineering students who have not been admitted to the professional program must register only for courses approved by their faculty advisor and obtain their advisor's authorization for add/drops. Failure to do so is grounds for dismissal from the civil engineering program. Students, including those in the professional program, who enroll in courses before taking the proper prerequisites or co-requisites, will be subject to dismissal from the civil engineering program.

Transfer students registering for the first time are advised separately prior to the beginning of the semester they enroll in courses. They should contact the department to set up an appointment for advising with a departmental undergraduate advisor prior to registration.

Civil engineering students who are planning to graduate with an area of concentration in civil engineering must first be advised by the designated advisor for that area of concentration prior to being advised by an undergraduate advisor.

Transfer Students and Transfer Credit

When a student transfers, a loss of credit can occur and his/her academic plans may have to be changed. Courses that appear to be similar may be different in either content or level of difficulty and, as a result, cannot be used for degree credit. When a student's record indicates weakness in certain areas of study, he/she will be required to retake courses or to take additional courses. Transfer students should contact the Department of Civil Engineering after admission and prior to registration.

Prior to advising, a transfer student should present to an undergraduate advisor a transcript (official or copy) from each school previously attended. Only the equivalent courses in a program accredited by ABET, Inc., or equivalent freshman and sophomore courses accepted by the department can be counted toward a degree in civil engineering. To be acceptable as an equivalent course, it must be equivalent to our corresponding course in credit value and course content. Junior and senior level courses taken at a college or university which does not have a civil engineering program accredited by ABET, Inc. cannot be used to satisfy the requirements for a degree in civil engineering.

A student in the Department of Civil Engineering at UT Arlington who wishes to enroll in courses at another college or university for transfer credit toward a degree in civil engineering should, first, consult with an undergraduate advisor to verify that the course can be used in the student's CE degree plan.

Competence in Oral Communication and Computer Use

Completion of COMS 3302, Professional and Technical Communication, with a grade of C or better, is required to earn a degree in civil engineering. Also, successful completion of COMS 3302 meets the University's oral communication requirement.

All civil engineering students are required to complete CE 1104, Introduction to Engineering, and CE 1105, Introduction to Civil Engineering, with a grade of C or better. Successful completion of these courses satisfies the University's computer proficiency requirement.

Overview: Educational and Professional Career Paths

Civil engineering is the oldest and broadest of the engineering disciplines. A civil engineer works with a wide spectrum of individuals in both the public and private sectors to meet today's challenges of pollution, infrastructure rehabilitation, traffic congestion, floods, earthquakes, and urban development. Civil engineers plan, design, and construct facilities essential to modern, civilized human life. Projects requiring civil engineering expertise vary widely in nature, size, and scope, such as: bridges, tunnels, transportation systems, dams, airports, buildings, skyscrapers, foundations, water treatment and distribution, wastewater collection and treatment, hazardous waste treatment, environmental remediation, environmental protection, and air pollution control.

Civil engineering graduates are prepared for a wide range of career paths in civil engineering including consulting, governmental agencies, and industry. In addition to the traditional careers in civil engineering, graduates may take advantage of their strong, broad-based engineering education to pursue careers in professions such as medicine, law, business, or teaching.

Civil Engineering Degree Programs at UT Arlington

At the undergraduate level, the department offers a Bachelor of Science in Civil Engineering degree with several options including a general civil engineering option

and six options with an area of concentration: construction engineering and management, environmental engineering, geotechnical engineering, structural engineering, transportation engineering and water resources engineering. The only difference in the various options of the degree is in the technical electives chosen in the senior year. Descriptions of CE degree options are available in the CE Advising Office. All degree options are designed to provide a strong foundation in science, mathematics, and engineering science; technical competence in multiple areas of civil engineering practice; and an understanding of the importance of ethics, safety, professionalism, and socioeconomic concerns in resolving technical problems through synthesis, planning, and design. Elements of design are introduced at the freshman level. This is followed by an analysis and design component in professional program courses, culminating in a comprehensive design experience. The Engineering Accreditation Commission of ABET, Inc. accredits the undergraduate degree. ABET, Inc. is recognized by the U.S. Department of Education as the sole agency responsible for accreditation of educational programs leading to degrees in engineering.

At the graduate level, the Master of Engineering, Master of Science, and Doctor of Philosophy degrees are offered. Graduate engineering degrees are concentrated in one of the areas of specialization available within the department: construction engineering and management; environmental engineering; water resources engineering; geotechnical engineering; structures and/or applied mechanics; transportation engineering; and infrastructure systems.

Educational Objectives of the Undergraduate Program

The purpose of the Civil Engineering Department is to advance the cause of the profession through teaching and research and to produce technically knowledgeable, well rounded graduates who have the capability of developing into professionally competent engineers pursuing lifelong learning and assuming leadership roles in the profession. The CE Department supports the University and College of Engineering mission by offering a broad-based undergraduate education leading to a degree of bachelor of science in civil engineering with emphasis on technical, professional, ethical, and societal responsibilities associated with the practice of engineering. Advanced masters and doctoral degrees are offered with emphasis on technical specialization and the advancement of knowledge in several areas of civil and environmental engineering.

The overall goal of the civil engineering undergraduate program is to promote intellectual development of those interested in the civil engineering profession, and to produce graduates who possess the knowledge, tools and traits necessary for a successful career, and for assuming a leadership role in the civil engineering profession. More specifically, the educational program objectives are to produce graduates who:

- Possess a broad-based civil engineering education to successfully obtain professional positions, and practice civil engineering in a wide range of professional settings including consulting firms, industries, and government agencies.

- Exhibit professional growth throughout their careers by taking on increasing professional responsibilities, and pursue life-long learning by participation in job-related training activities, and/or attending graduate school, and obtaining professional engineering license.
- Demonstrate success and leadership in practice of engineering by contributing to the economic well-being of their employers and society, and by dedicated service to professional societies.

Program Outcomes of the Undergraduate Program

From these Program Educational Objectives, the department designed its baccalaureate program to offer its graduates:

- an ability to apply knowledge of mathematics, science, and engineering
- an ability to design and conduct experiments
- an ability to analyze and interpret data
- an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety,manufacturability, and sustainability
- an ability to function on multi-disciplinary teams
- an ability to identify, formulate, and solve engineering problems
- an understanding of professional and ethical responsibility
- an ability to communicate effectively
- the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- a recognition of the need for, and an ability to engage in life-long learning
- a knowledge of contemporary issues
- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

The Department of Civil Engineering has active student chapters associated with the American Society of Civil Engineers (ASCE) and the Institute of Transportation Engineers (ITE). Students are encouraged to participate in the activities of both of these organizations. The Department also has an active chapter of the national civil engineering honor society, Chi Epsilon. Membership is by election and is limited to students in the upper third of the junior and senior classes who satisfy other requirements listed in the society's bylaws.

Civil Engineering Faculty

Chair

Professor Yazdani

Professors

Abolmaali, Ardekani, Matthys, Puppala, Williams, Yazdani

Associate Professors

Hoyos, Kruzic, Mattingly, Romanoschi

Assistant Professors

Chao, Hossain, McEnery, Najafi, Ramirez, Sattler

Senior Lecturers

Ghandehari, Leininger, Weatherton

President Emeritus

Nedderman

Professors Emeritus

Everard, Parker, Qasim

The Department of Computer Science and Engineering

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undergrad@cse.uta.edu

Overview

The Department of Computer Science and Engineering offers three programs of study leading to the bachelor's degree: the Bachelor of Science in Computer Science, the Bachelor of Science in Computer Engineering, and the Bachelor of Science in Software Engineering.

Bachelor of Science in Computer Science (BSCS)

The BSCS program has been formulated so that graduates may: (1) enter the computing profession or advanced studies supported by their fundamental knowledge of mathematics, basic science, computing systems and science; (2) will advance in this profession supported by their ability to work in teams, analyze complex computing systems, design solutions and implement these solutions using computer software tools and technologies; and (3) demonstrate success and leadership while advancing the practice of computing by contributing to the growth of their employers, communities, and professional societies through their proficiency in communication, understanding of professional ethics and the ability to engage in continuing professional development.

Bachelor of Science in Computer Engineering (BSCpE)

The BSCpE program has been formulated so that graduates may: (1) enter the engineering profession or advanced studies supported by their fundamental knowledge of mathematics, basic science, engineering principles, computing systems and science; (2) advance in the engineering profession supported by their ability to work in teams, analyze complex computing systems, design solutions and engineer these solutions using computer software and hardware tools and technologies; and (3) demonstrate success and leadership while advancing the practice of engineering by contributing to the growth of their employers, communities, and professional societies through their proficiency in communication, understanding of professional ethics, and the need for life-long learning.

Bachelor of Science Degree in Software Engineering (BSSE)

The BSSE program has been formulated so that graduates will: (1) pursue the software

engineering profession or advanced studies supported by their abilities to apply knowledge of mathematics, science, computer science and supporting disciplines, and software engineering; (2) advance in the software engineering profession supported by their abilities to effectively communicate and work in one or more significant application domains, function in multi-disciplinary teams, analyze, design, verify, validate, implement, and maintain software systems using software engineering technologies and tools; and (3) demonstrate success and leadership while advancing the practice of software engineering by contributing to the growth of their employers, communities, and professional societies through life-long learning, understanding professional ethics and responsibilities, and the impact of engineering solutions in a global and societal context.

In all three programs of study, design experiences are included throughout the first three years of the curriculum and culminate in a major team-oriented project in the senior year that approximates an industrial work experience. All programs strive to provide students with opportunities to interface with the profession through avenues such as cooperative education programs, professional society activities, plant trips, special projects, and industry speakers programs.

Program Outcomes

From the educational objectives of each of its baccalaureate programs (described above), the department designed their programs to offer its graduates:

- an ability to apply knowledge of mathematics, science, and engineering
- an ability to design and construct experiments, as well as to analyze and interpret data
- an ability to design a system, component, or process to meet desired needs
- an ability to function on multidisciplinary teams
- an ability to identify, formulate, and solve engineering problems
- an understanding of professional and ethical responsibility
- an ability to communicate effectively
- the broad education necessary to understand the impact of engineering solutions in a global and societal context
- a recognition of the need for, and the ability to engage in, lifelong learning
- a knowledge of contemporary issues
- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

Admission Requirements

Requirements for admission as a CS, CpE or SE pre-major or major are governed by the requirements stated under the College of Engineering section of this catalog. CS, CpE or SE pre-majors become majors upon completion of 12 hours of required science, mathematics, and CSE courses, with a 2.25 or better grade point average.

All entering students majoring in computer science, computer engineering, or software engineering are permitted to enroll in general education and pre-professional courses for which they are qualified. Students completing these pre-professional courses must meet the academic requirements specified by the College of Engineering prior to applying for admission to the professional program. The Computer

Science and Engineering Department requires a 2.25 overall grade point average on a 4.0 scale in each of three categories: (1) overall, (2) required science, mathematics, and engineering courses, and (3) required CSE courses. Students not in the professional program must have permission from the department chairperson to receive credit for courses listed in the professional program category. Application for admission to the professional program is made to the Department of Computer Science and Engineering. Application forms may be obtained from the departmental office or the advising Web page.

Prior Preparation

The BSCS, BSCpE, and BSSE are four-year programs and requirements for the degrees are based upon prior high school preparation through either an honors or college track. More specifically, entering students are expected to have a background in mathematics through precalculus, high school chemistry, and programming in a high-level language such as C, C++ or Java.

Students who have not had the appropriate preparation should contact the departmental advising office for assistance in structuring a degree plan that will include leveling courses. Students requiring leveling courses may require a longer period of time to complete their undergraduate program.

Readiness Examinations

Students will be required to pass readiness examinations before enrolling in the courses listed below unless the course prerequisite was taken at UT Arlington and passed with a C or better grade. Students not passing the readiness examination must take the prerequisite course. A readiness examination may be taken only once per course. Additional information is available in the departmental office.

CSE 1320: Intermediate Programming
CSE 1325: Object-Oriented Programming in Java

Student Advising

CS, CpE, and SE pre-majors and majors are required to be advised by a departmental advisor each semester. Consult the departmental bulletin boards or Web site for advising hours. Continuing students are encouraged to submit advising requests via the Web site. New and transfer students must also be advised prior to the beginning of the semester in which they first enroll.

Transfer Students and Transfer Credit

After admission and prior to registration, transfer students should contact the Department of Computer Science and Engineering for advising. At the time of advising, a transfer student must present to the undergraduate advisor an official transcript (or copy) from each school previously attended. Only the equivalent courses in a program accredited by the Accreditation Board for Engineering and Technology (ABET), or equivalent freshman, sophomore, or general education courses accepted by the department chairperson can be counted toward a degree in computer science and engineering.

A student, once admitted to The University of Texas at Arlington and enrolled in the CS, CpE or SE program, cannot enroll in courses at another college or university and transfer those courses for credit toward a CS, CpE or SE degree without having obtained prior written permission from the chairperson of

the Department of Computer Science and Engineering.

Cooperative Education Program

Cooperative education or Co-op programs are arrangements where students alternate periods of full-time employment with periods of full-time study, usually during the last two years of a degree program. The employment is directly related to the student's major and pays an attractive salary. Thus, Co-op students gain valuable career related experience before graduating, while earning a meaningful income. Cooperative education opportunities are plentiful for CS, CpE, and SE students. A suggested course sequence for Co-op students is available in the department office.

Honors Programs

The Computer Science and Engineering Department encourages qualified CS, CpE, and SE majors to participate in the Honors College described elsewhere in this catalog. Projects may be pursued in any one of the areas of concentration within the Department of Computer Science and Engineering.

Minor in Computer Science

To receive a minor in Computer Science, a student must not be receiving his/her major degree from the department and must complete all courses listed with a grade of C or better in each course. Any substitutions must be approved in advance by the department chairperson.

Requirements for a Minor in Computer Science

To receive a minor in Computer Science, a student must complete the following courses with a grade of C or better in each:

- CSE 1320 Intermediate Programming
- CSE 1325 Object-Oriented Programming in Java
- CSE 2315 Discrete Structures
- CSE 2320 Algorithms and Data Structures
- and any two 3000 or 4000 level courses with a grade of C or better in each, as well as all required prerequisites for the chosen courses.

Requirements for a Minor in Computer Applications

To receive a minor in Computer Applications, a student who is not in the College of Engineering must complete the following courses with a grade of C or better in each:

- CSE 1310 Introduction to Computers and Programming
- CSE 1320 Intermediate Programming
- CSE 1325 Object-Oriented Programming in Java
- CSE 2321 Data Structures for Non-Engineers
- CSE 3310 Software Engineering
- CSE 3330 Database Systems and File Structures

Graduate Degree Paths

Computing is a rapidly changing discipline requiring lifelong learning by its professionals. Completing a graduate degree enhances an individual's ability to assimilate and apply their knowledge and skills to meet on the job challenges and the

needs of society. Pursuing a graduate degree on a full-time basis immediately after completing the baccalaureate is an attractive option for many students. Students are encouraged to discuss possibilities with a Graduate Advisor upon advancement to a Bachelor of Science professional program.

Fast Track Program for Master's Degree in Computer Engineering

The Fast Track Program enables outstanding UT Arlington senior undergraduate students in Computer Engineering to satisfy degree requirements leading to a master's degree in Computer 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 nine hours of graduate level coursework designated by the Computer 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.S.)

Interested UT Arlington undergraduate Computer Engineering students should apply to the Computer 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. Contact the Undergraduate Advisor or Graduate Advisor in Computer Science and Engineering for more information about the program.

Direct Acceptance to Doctoral Programs from Bachelor's Degree Program

Excellent undergraduate students may qualify for acceptance to doctoral studies without the intermediate completion of a masters degree. Students should discuss the expected level of commitment and possibilities for long-term support with a Graduate Advisor.

Oral Communication and Computer Competency Requirement

CS, CpE, and SE students will satisfy the oral competency requirement by completing Professional and Technical Communications (COMS 3302). They will satisfy the computer use competency requirement by completing Introduction to Computer Science and Engineering (CSE 1105).

Requirements for a Bachelor of Science Degree in Computer Science

(All pre-professional courses must be completed before enrolling in professional courses)

English

ENGL 1301 and 1302.

Mathematics

MATH 1426, 2425 and 2326.

Natural Science

PHYS 1443 and 1444.

Computer Science and Engineering

CSE 1104, 1105, 1320, 1325, 2312, 2315 and 2320.

General Education Courses

Literature

Three hours of literature (English or modern and classical languages) or approved substitute.

Liberal Arts

COMS 3302.

Fine Arts

Three hours of an approved fine arts elective.*

History

HIST 1311 and 1312.

Political Science

POLS 2311 and 2312.

Social/Cultural Studies

Three hours of an approved social or cultural elective.*

Professional Courses

Computer Science and Engineering

CSE 3302, 3310, 3315, 3316, 3320, 3330, 4308, 4316 and 4317.

Industrial Engineering

IE 3301 (or MATH 3313), and IE 3312.

Mathematics

MATH 3330 and 3 hours of an approved math elective.*

Science

Four hours of approved science electives.*

Technical Electives

12 hours of approved technical electives.*

Pre-Professional Total

45 hours.

General Education Total

24 hours.

Professional Total

55 hours.

Total (for degree)**

121 hours, plus modern and classical languages as required.

*A list of acceptable electives is available from the departmental office or Web site.

**Total hours for students required to take remedial mathematics courses or additional technical electives will be greater.

Refer to the College of Engineering section of this catalog for information concerning the following topics: Preparation in High School for Admission to the College of Engineering, Admission to the College of Engineering, Admission to the Professional Program, Counseling, College of Engineering Academic Regulations, Transfer Policies, College of Engineering Probation, Repeating Course Policy, Academic Honesty, and Modern and Classical Languages Requirement.

Suggested Course Sequence

Freshman Year

First Semester: CSE 1104, 1105, 1320; ENGL 1301; MATH 1426; HIST 1311-Total Credit 15 hours.

Second Semester: CSE 1325; ENGL 1302; MATH 2425; PHYS 1443; HIST 1312-Total Credit 17 hours.

Sophomore Year

First Semester: CSE 2315, 2312; MATH 2326; PHYS 1444; POLS 2311-Total Credit 16 hours.

Second Semester: CSE 2320; IE 3301; MATH 3330; POLS 2312; COMS 3302-Total Credit 15 hours.

Upon completion of the 45 hours of pre-professional courses, the student will be admitted to the professional program if minimum grade point requirements are met. The Computer Science and Engineering Department requires a 2.25 overall grade point average on a 4.0 scale in each of three categories: (1) overall, (2) required science, mathematics and engineering courses, and (3) required CSE courses. Students not in the professional program must have permission from the department chairperson to receive credit for courses listed in the professional program category.

Junior Year

(Prerequisite: Admission to the professional program)

First Semester: CSE 3310, 3315, 3320; IE 3312; Literature elective, 3 hours-Total Credit 15 hours.

Second Semester: CSE 3302, 3316, 3330, 4308; Science elective, 4 hours-Total Credit 16 hours.

Senior Year

First Semester: CSE 4316; Technical electives, 6 hours; Math elective, 3 hours; Social/Cultural elective, 3 hours-Total Credit 15 hours.

Second Semester: CSE 4317; Technical electives, 6 hours; Fine Arts elective, 3 hours-Total Credit 12 hours.

Requirements for a Bachelor of Science Degree in Computer Engineering

Pre-Professional Courses

(All pre-professional courses must be completed before enrolling in professional courses)

English

ENGL 1301 and 1302.

Mathematics

MATH 1426, 2425 and 2326.

Natural Science

CHEM 1441 or 1465, PHYS 1443 and 1444.

Computer Science and Engineering

CSE 1104, 1105, 1320, 1325, 2312, 2315, 2320, 2340 and 2140.

Electrical Engineering

EE 2440.

Other General Education Courses

Literature

Three hours of literature (English or modern and classical languages) or approved substitute.

Liberal Arts

COMS 3302.

Fine Arts

Three hours of an approved fine arts elective.*

History

HIST 1311 and 1312.

Political Science

POLS 2311 and 2312.

Social/Cultural Studies

Three hours of an approved social or cultural elective.*

Professional Courses

Computer Science and Engineering

CSE 3310, 3316, 3320, 3340, 3442, 4316 and 4317.

Take exactly one of {CSE 3302, 3330}

Take 4342 (Embedded Systems II)

Take at least one of {CSE 4340 (Mobile Systems), CSE 4360 (Robotics)}

CpE students must have one of CSE 4340, 4342, 4360 as prereq. to CSE 4316.

Industrial Engineering

IE 3301 and 3312.

Mathematics

MATH 3319.

Mathematics/Science

Three hours of an approved mathematics or science elective.*

Technical Electives

Six hours of approved technical electives.*

Pre-Professional Total

54 hours.

General Education Total

24 hours.

Professional Total

49 hours.

Total (for degree)**

127 hours, plus modern and classical languages as required.

*A list of acceptable electives is available from the departmental office or Web site.

**Total hours for students required to take remedial mathematics courses or additional technical electives will be greater.

Refer to the College of Engineering section of this catalog for information concerning the following topics: Preparation in High School for Admission to the College of Engineering, Admission to the College of Engineering, Admission to the Professional Program, Counseling, College of Engineering Academic Regulations, Transfer Policies, College of Engineering Probation, Repeating Course Policy, Academic Honesty, and Modern and Classical Languages Requirement.

Suggested Course Sequence

Freshman Year

First Semester: CSE 1104, 1105; CHEM 1441 or 1465; ENGL 1301; MATH 1426; PHYS 1443-Total Credit 17 hours.

Second Semester: CSE 1320; ENGL 1302; MATH 2425; PHYS 1444; HIST 1311-Total Credit 17 hours.

Sophomore Year

First Semester: CSE 1325, 2315; EE 2440; MATH 2326; HIST 1312; IE 3312 -Total Credit 19 hours.

Second Semester: CSE 2312, 2320, 2340, 2140; MATH 3319; POLS 2311 -Total Credit 16 hours.

Upon completion of the 54 hours of pre-professional courses, the student will be admitted to the professional program if minimum grade point requirements are met. The Computer Science and Engineering Department requires a 2.25 overall grade point average on a 4.0 scale in each of three categories: (1) overall, (2) required science, mathematics and engineering courses, and (3) required CSE courses. Students not in the professional program must have permission from the department chairperson to receive credit for courses listed in the professional program category.

Junior Year

(Prerequisite: Admission to the professional program)

First Semester: CSE 3310, 3320, 3442; IE 3301; COMS 3302-Total Credit 16 hours.

Second Semester: CSE 3316, 3340, 4342; POLS 2312; Literature elective, 3 hours-Total Credit 15 hours.

Senior Year

First Semester: CSE 4316, CSE 3302 or 3330, CSE 4360; Technical electives, 6 hours; Social/Cultural elective, 3 hours-Total Credit 15 hours.

Second Semester: CSE 4317, CSE 4340 or Technical elective, 3 hours; Math/Science elective, 3 hours; Fine Arts elective, 3 hours-Total Credit 12 hours.

Requirements for a Bachelor of Science Degree in Software Engineering

Pre-Professional Courses

(All pre-professional courses must be completed before enrolling in professional courses)

English

ENGL 1301 and 1302.

Mathematics

MATH 1426, 2425 and 2326.

Natural Science

PHYS 1443 and 1444.

Computer Science and Engineering

CSE 1104, 1105, 1320, 1325, 2312, 2315 and 2320.

Other General Education Courses

Literature

Three hours of literature (English or modern and classical languages) or approved substitute.

Liberal Arts

COMS 3302.

Fine Arts

Three hours of an approved fine arts elective.*

History

HIST 1311 and 1312.

Political Science

POLS 2311 and 2312.

Social/Cultural Studies

Three hours of an approved social or cultural elective.*

Professional Courses

Computer Science and Engineering

CSE 3302, 3310, 3315, 3316, 3320, 3330, 4311, 4321, 4322, 4316, 4317 and 4361.

Industrial Engineering

IE 3301 (or MATH 3313) and IE 3312.

Mathematics

MATH 3330.

Mathematics/Science

Six hours of an approved mathematics or science elective.*

Technical elective: 3 hours

Pre-Professional Total

42 hours.

General Education Total

24 hours.

Professional Total

54 hours.

Total (for degree)**

120 hours, plus modern and classical languages as required.

*A list of acceptable electives is available from the departmental office or Web site.

**Total hours for students required to take remedial mathematics courses or additional technical electives will be greater.

Refer to the College of Engineering section of this catalog for information concerning the following topics: Preparation in High School for Admission to the College of Engineering, Admission to the College of Engineering, Admission into the Professional Program, Advising, College of Engineering Academic Regulations, Transfer Policies, College of Engineering Probation, Repeating Course Policy, Academic Honesty, and Modern and Classical Languages Requirement.

Suggested Course Sequence

Freshman Year

First Semester: CSE 1104, 1105, 1320; ENGL 1301; MATH 1426; HIST 1311-Total Credit 15 hours.

Second Semester: CSE 1325; ENGL 1302; MATH 2425; PHYS 1443; HIST 1312-Total Credit 17 hours.

Sophomore Year

First Semester: CSE 2315, 2312; MATH 2326; PHYS 1444; POLS 2311-Total Credit 16 hours.

Second Semester: CSE 2320; IE 3301; MATH 3330; COMS 3302; POLS 2312-Total Credit 15 hours.

Upon completion of the 45 hours of pre-professional courses, the student will be admitted to the professional program if minimum grade point requirements are met. The Computer Science and Engineering Department requires a 2.25 grade point average on a 4.0 scale in each of three categories: (1) overall, (2) required science, mathematics, and engineering courses, and (3) required CSE courses. Students not in the professional program must have permission from the department chairperson to receive credit for courses listed in the professional program category.

Junior Year

(Prerequisite: Admission to the professional program)

First Semester: CSE 3302, 3310, 3315; IE 3312; Math/Science elective, 3 hours-Total Credit 15 hours.

Second Semester: CSE 3316, 3320, 3330, 4311; Literature elective, 3 hours-Total Credit 15 hours.

Senior Year

First Semester: CSE 4321, 4322, 4316; Technical elective, 3 hours; Social/Cultural elective, 3 hours-Total Credit 15 hours.

Second Semester: CSE 4317, 4361; Math/Science elective, 3 hours; Fine Arts elective, 3 hours-Total Credit 12 hours.

Course Offerings

All 1000- and 2000-level CSE courses are typically offered each semester and in the 11-week summer session. All 3000-level courses and required 4000-level courses are typically offered at least twice per year. Other 4000-level courses are typically offered only once per year unless there is a high demand. Refer to the CSE department bulletin boards or Web site for more specific and current information. The CSE department reserves the right to move students among equivalent sections of the same course.

Computer Science and Engineering Faculty

Chair

Professor Makedon

Professors

Ahmad, Carroll, Chakravarthy, S. Das, Ding, Elmasri, Kamangar, Kumar, Kung, Patterson, Peterson, Walker

Associate Professors

G. Das, Fegaras, Huber, Weems

Assistant Professors

Athitsos, Che, Chen, Gao, Guerra, Huang, Lei, Li, D. Liu, Y. Liu, Stojanovic, Wright, Zaruba, Zhang

Senior Lecturers

Barasch, Khalili, Levine, O'Dell, Reyes, Tiernan

The Department of Electrical Engineering

517 Nedderman Hall · Box 19016 · 817-272-2671
www.uta.edu/ee

501 Nedderman Hall · Student Advising Office
ee_ug_advising@uta.edu

Requirements for a Bachelor of Science Degree in Electrical Engineering

Pre-Professional Courses

(All pre-professional courses must be completed before enrolling in professional program courses)

English

ENGL 1301, 1302.

Mathematics

1426 [1], 2425, 2326, 3319.

Science

CHEM 1465 (or CHEM 1441), PHYS 1443, PHYS 1444.

Engineering

CE 2312.

Computer Fundamentals and Programming

EE 2347, CSE 1311.

Electrical Engineering

1104, 1105, 2315, 2303, 2307, 2341

General Education Courses

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

For EE majors COMS 3302 must be used to satisfy this requirement.

Fine Arts

Three hours from architecture, art, music, or theatre arts [2].

Social/Cultural Studies

For EE majors ECON 2305 must be used to satisfy this requirement.

U.S. History

1311, 1312.

U.S. Political Science

2311, 2312.

Professional Courses

Electrical Engineering

3302, 3308, 3310, 3317, 3318, 3330, 3444, 3446, 4314, 4330, 4340, 4349, one EE elective (3 hours).

Engineering Elective [2]

Three hours (also includes Electrical Engineering).

Mathematics or Science Elective [2]

Three hours of 3000/4000 courses in Mathematics or Science.

Thermal Engineering

MAE 3309.

Total (Pre-Engineering)

53 hours.

Total (General Education)

24 hours.

Total (Upper-Division)

52 hours.

Total (for degree) [3]

129 hours.

[1]The Mathematics Department requires MATH 1323 or passing a placement test provided by the Mathematics Department before enrolling.

[2] A list of acceptable electives is available in the EE Dept. advising office.

[3] Total hours will depend upon prior preparation and academic qualifications. Also, students who do not have two units of

high school foreign language will be required to take two courses of foreign language in addition to the previously listed requirements.

Refer to the College of Engineering section of this catalog for information concerning the following topics: Admission into Engineering, Admission into Pre-Engineering, Admission into the Professional Program, Counseling or Advising, Transfer and Change of Major Policies, Honors Program, Academic Regulations, Professional Engineering Registration, Cooperative Education, Academic Probation, Repeating Course Policy, and Academic Dishonesty.

The program is divided into a pre-professional program and a professional engineering program, with the division essentially occurring between the sophomore and junior years.

Suggested Course Sequence: Pre-Professional Program

The following suggested course sequences for the freshman and sophomore years reflect a concentration of preliminary science, mathematics, and engineering courses to prepare the student for professional program studies.

Freshman Year

First Semester: EE 1104, EE 1105; MATH 1426; PHYS 1443; ENGL 1301-Total Credit 13 hours.

Second Semester:CSE 1311; MATH 2425; PHYS 1444; CHEM 1465 (or CHEM 1441); ENGL 1302-Total Credit 18 hours.

Sophomore Year

First Semester: EE 2315; MATH 2326; MATH 3319; EE 2347; HIST 1311-Total Credit 15 hours.

Second Semester: EE 2303; EE 2307; EE 2341; CE 2312; HIST 1312; COMS 3302-Total Credit 18 hours.

Suggested Course Sequence: Professional Program

The following suggested course sequences for the junior and senior years are tailored to guide the students to successful completion of their studies. Course prerequisites or concurrent enrollment in courses are considered.

Junior Year

(Prerequisite: Admission to the Professional Program)

First Semester: EE 3308; EE 3317; EE 3444; EE 3446; MAE 3309-Total Credit 17 hours.

Second Semester: EE 3302; EE 3310; EE 3318; EE 3330; ECON 2305; Fine Arts Elective, 3 hours-Total Credit 18 hours.

Senior Year

First Semester: EE 4314; EE 4330; EE 4340; ENGR Elective, 3 hours; POLS 2311-Total Credit 15 hours.

Second Semester: EE 4349; EE Elective, 3 hours; Math/Science Elective, 3 hours; English Literature Elective, 3 hours; POLS 2312-Total Credit 15 hours.

Requirements for a Minor in Electrical Engineering

To receive a minor in Electrical Engineering, a student must complete the following four courses with a grade of C or better in each:

EE 2315 Circuit I
EE 2303 Electronics I
EE 2307 Electromagnetics
EE 2341 Digital Circuit Design (with lab)

and must complete two courses with a grade of C or better in each selected from among the following four:

EE 3446 Circuit II (with lab)
EE 3444 Electronics II (with lab)
EE 3302 Power Systems Fundamentals
EE 3317 Linear Systems as well as all required prerequisites for the two chosen courses.

Overview of Electrical Engineering

Electrical Engineering is a broad field that includes power systems, control systems, microelectronics and nanoelectronics, microprocessors and computer networks, telecommunications (wire, wireless, satellite and fiber optic), remote sensing, signal processing, neural networks, medical devices, optics (electro-optics, optoelectronics and photonics) and other emerging technologies.

Electrical engineers must be prepared to apply fundamental concepts in the applications of new technologies and to contribute to the growth of these technologies. They must also have the skills to communicate their ideas and to manage projects within a schedule and budget. Because of the broad nature of the field, electrical engineers are involved in a wide range of engineering design projects and they must be able to employ knowledge from other disciplines in electrical engineering designs. They must also be prepared to support engineers in other disciplines.

Engineering designs are a team effort and require good communication skills, both oral and written. Therefore it is important that each student develops these necessary communication skills.

The benefit of having an education in electrical engineering is that the student is prepared for a career not only in technical areas but also for further training in other disciplines such as medicine, law, public policy, business, economics, management, and teaching.

Educational Objectives of the Undergraduate Program

The Educational Objectives are to produce graduates who:

- Possess a broad yet practical knowledge in electrical engineering, science, and mathematics with particular depth in electromagnetics, circuits, electronics, and controls.
- Possess a practical knowledge in other key areas such as thermal engineering, mechanics, and economics.
- Are skilled in applying mathematical tools and engineering judgment to professional design, analysis, and problem solving; work well either individually or in multidisciplinary teams; and can effectively articulate technical ideas to both technical and non-technical audiences.
- Understand the importance of lifelong learning, ethics and

professional accountability, and their role as leaders in society.

Program Outcomes of the Undergraduate Program

From these Program Educational Objectives, the department designed its baccalaureate program to offer its graduates:

- an ability to apply knowledge of mathematics, science, and engineering
- an ability to design and conduct experiments, as well as to analyze and interpret data
- an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety,manufacturability, and sustainability
- an ability to function on multi-disciplinary teams
- an ability to identify, formulate, and solve engineering problems
- an understanding of professional and ethical responsibility
- an ability to communicate effectively
- the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- a recognition of the need for, and an ability to engage in life-long learning
- a knowledge of contemporary issues
- an ability to use the techniques, skills and modern engineering tools necessary for engineering practice

The program is accredited by the Engineering Accreditation Commission (EAC) of ABET, formerly the Accreditation Board for Engineering and Technology.

Admission Requirements

Requirements for admission as an EE major are governed by the requirements as stated in the College of Engineering section of this catalog. EE majors are only allowed to enroll in pre-professional courses until they meet the requirements for the professional program as outlined below.

Undergraduate Advising

General academic advising for new students (excluding transfer course evaluation) is done during the scheduled orientation period prior to registration. Academic advising for continuing students will be done during each semester prior to registration. The dates for advising new and continuing students will be listed in the appropriate schedule of classes. Personal academic advising is available in the office of the Undergraduate Advisor during the semester by appointment. To graduate, the student must have an approved degree plan on file in the Registrar's Office.

The students can use the course sequences described above to plan their studies. Recommended electives are listed in the advising office and on the Web site at www.uta.edu/engineering/ee. A supplemental EE Undergraduate Program Guide is available in the Advising Office; it provides more details of the different areas of specialization in Electrical Engineering as well as on other matters relevant to completing the BSEE degree.

Admission to the Professional Program

Requirements for admission to the professional program in Electrical Engineering are in accordance with those of the College of Engineering with the following added stipulations:

- Application to the professional program is to be made to the Undergraduate Advisor during the semester that the advancement requirements are being completed.
- No professional electrical engineering courses may be taken until the student is admitted into the professional program or obtains the written consent of the Undergraduate Advisor.
- Each student must complete all pre-professional courses stipulated under "Requirements for a Bachelor of Science Degree in Electrical Engineering" with a minimum grade of C in each course and a minimum GPA of 2.25 in (1) all courses, (2) in all math, science, and engineering courses, and (3) in all EE courses.

To graduate, the student must be admitted to the professional program and have an approved degree plan on file in the Registrar's office. The degree plan is generated upon entry to the professional program. Graduating seniors should apply to graduate during the next-to-last semester. Each student must complete all professional level electrical engineering courses stipulated under "Requirements for a Bachelor of Science Degree in Electrical Engineering" with a minimum grade of C in each course. All engineering courses used on the BSEE degree plan must be C or better.

Program Features

The pre-professional program reflects a concentration of preliminary science, mathematics, and engineering courses to prepare the student for the professional engineering program. EE students are admitted to the professional program as described above. The pre-professional program consists of core courses in electronics; digital systems, microprocessors, and computer programming; electromagnetics; power systems and energy conversion; continuous and discrete time systems; controls; and communications. The core curriculum provides the needed foundation for a variety of technical areas in electrical engineering. The design experience is emphasized throughout the program, with particular emphasis on the team concept in the engineering design courses. Through careful selection of technical electives, the student may specialize in certain fields of electrical engineering. Information on these areas is available in the Electrical Engineering Department Advising Office. In addition, there are opportunities to participate in ongoing research projects of the faculty in Electrical Engineering. Independent study credit can be obtained through EE 4391 Advanced Problems in Electrical Engineering

Cooperative Education Program

Cooperative education opportunities are plentiful for EE students. Interested students should contact the Cooperative Education Office in the College of Engineering.

Master's Degree Path

The electrical engineering field is continually evolving in all areas from power systems to optics. To stay current in technical areas requires a commitment to lifelong learning. Completing a master's

degree certainly gives the student a head start on this.

Those students graduating with a GPA of 3.0 or higher and GRE scores of 350 Verbal or higher and 700 quantitative or higher can be admitted to the EE master's program upon application. Interested students should contact the graduate advisor. Students can take a project course, EE 4391, as one of their technical electives to begin their studies on a topic that they may use for their MS research and thesis. Also, students that require less than 12 hours to graduate can dual enroll in the graduate program in the last semester of their BS program.

Competence in Oral Communication and Computer Use

Electrical Engineering students will satisfy the University Competence in Oral Presentations requirement by completing the course COMS 3302, Professional and Technical Communication. They will satisfy the University Competence in Computer Use requirement by completing EE 2347, Computer Methods for Electrical Engineering.

Electrical Engineering Faculty

Chair

Professor Bredow

Professors

Alavi, Butler, Carter, Celik-Butler, Chiao, Devarajan, Kondraske, Lee, Lewis, Magnusson, Manry, Rao, Stephanou, Tao, Yeung

Associate Professors

Davis, Dillon, Fahimi, Jung, Liang, Oraintara, Popa, Tjuatja, Vasilyev, Zhou

Assistant Professors

Iqbal, Lu

Senior Lecturers

Gibbs, Kenarangui, Russell, Stelmakh

Research Professors

Fung, Kolesar, Li, Magnusson, Maldonado, Mireles

Lecturer

Kearny

Professors Emeritus

Chen, Fitzer, Fung, Prabhu, Shoults, Smith, Spradlin

The College of Nursing

Dean: Elizabeth Poster, R.N., Ph.D.
669 Pickard Hall · Box 19407 • 817-272-2776
www.uta.edu/nursing

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.

Masters 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 prepare 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.

Smart Hospital

The Smart Hospital is a simulated hospital environment complete with state-of-the-science equipment and furnishings. In this facility, nursing students interact with and provide care to a full array of simulated patients who occupy the Emergency Room, ICU, Labor & Delivery (LDRP) suites, pediatric unit, Neonatal ICU, adult medical /surgical beds and the large team training resuscitation room.

The "patients" who populate our Smart Hospital are life-sized computerized manikins that actually interact with the learners. Patients include infants, children, adults, and even a mother in labor who goes

through the labor process and delivers a newborn. Some manikins are static but others are interactive and responsive-they can speak and breathe, have heart sounds and lung sounds, and can progress through the various stages of numerous clinical states from birth through death. In addition, we have specially trained actors who can serve as patients or family members in clinical teaching scenes. In each clinical scenario, the students are exposed to situations and changes in patient conditions, both subtle and obvious, that they will experience in actual practice. With repeated exposure to these situations, students develop a deeper understanding of clinical conditions and become more adept at critical and clinical thinking. With this foundation, our students move more quickly from novice to expert and in so doing enhance the quality of patient care they provide.

Bachelor of Science in Nursing Degree

The undergraduate nursing degree, accredited by the Commission on Collegiate Nursing Education (CCNE) 1 and governed by the Texas Board of Nursing, consists of two programs, BSN and RN to BSN. We also offer two delivery options: traditional in-the-seat and online. The Academic Partnership Program (AP:BSN and AP:RN-BSN) is an online format developed by UT Arlington's College of Nursing to serve nurses in Texas and beyond by offering high quality, affordable and convenient nursing programs. As there are some differences in policies between the programs, there may also be differences between the traditional program and the online program; those will be noted throughout the catalog.

The faculty of the College of Nursing take academic honesty and ethical behavior very seriously. Nurses are entrusted with the health, safety and well-being of the public. Students found guilty of academic dishonesty will be punished to the full extent permitted by the rules and regulations of UT Arlington.

[1] Commission on Collegiate Nursing Education, One Dupont Circle, NW, Suite 530, Washington, DC 20036-1120 (202-887-6791, www.aacn.nche.edu).

BSN (prelicensure) Program

This is a four-year program consisting of nursing courses, university core courses and other prerequisite required courses. Upon successful completion of the program, the student is awarded the Bachelor of Science in Nursing degree and is eligible to take the National Council Licensure Examination for licensure as a Registered Nurse.

RN to BSN Program

This program is designed for Registered Nurses who have completed an accredited Associate Degree or Diploma nursing program. Full-time students may complete the upper division nursing courses in one academic year. Upon successful completion of the program, the student is awarded the Bachelor of Science in Nursing degree.

Undergraduate Outcomes - for the BSN degree

The University of Texas at Arlington Undergraduate Nursing Program prepares graduates to provide professional nursing care to persons/clients (individuals, families, groups, and communities) in diverse settings through the roles of provider of care, coordinator of care, and member of the profession.

On completion, the graduate will be able to:

- apply the nursing process using evidence-based data in the delivery of competent, culturally sensitive, developmentally appropriate holistic care.
- use analytical, logical reasoning for clinical judgment and nursing decision-making.
- assume accountability and responsibility for the quality of nursing care, upholding legal and ethical standards, lifelong learning, continuing professional development and promoting the nursing profession, and participating as a citizen in society.
- collaborate effectively with individuals and groups, using oral, written, non-verbal, and electronic communication, to enhance the therapeutic process and to maintain collegial professional relationships.
- coordinate human and material resources in providing comprehensive, efficient, and cost-effective care to persons/clients.

BSN Prelicensure Program

Essential Performance Standards for Admission and Progression in the College of Nursing

It is the philosophy of the University of Texas at Arlington College of Nursing (UTACON) that the baccalaureate program is designed to prepare a competent, self-directed, general practitioner of nursing who can assume increasing responsibility and leadership in the delivery of nursing care. In consideration of the preparation of a general practitioner, all individuals who apply for admission and are enrolled in the undergraduate program must be able to perform the essential functions of a student of nursing.

The College of Nursing has identified areas of essential functioning: communication, hearing, visual and motor. The student enrolled in the program must demonstrate mastery of components comprising each of the four areas. Because providing direct patient care is physically demanding, students need to meet the physical requirements of a staff nurse in the same setting in which they are completing a clinical rotation.

Qualified applicants are admitted without discrimination with regard to race, color, national origin or ancestry, gender, age, religion, sexual orientation, veteran status or disability (reasonable accommodations will be made within the Americans with Disabilities Act guidelines).

More detailed information is available on the nursing website www.uta.edu/nursing in the Student Handbook.

Admission Requirements

Students may be admitted as freshmen or may transfer to UT Arlington upon meeting the admission or transfer requirements established by the University. Students who designate themselves as nursing majors will be advised by the College of Nursing in Undergraduate Student Services. Official transcripts must be submitted to the UT Arlington Office of Admissions, Records and Registration.

NOTE: All freshmen are also advised by University College.

BSN students desiring admission to the sequence of upper-division nursing courses leading to the degree of Bachelor of Science in Nursing must:

- Submit College of Nursing application and official transcripts by January 5 for following fall semester or June 1 for following spring semester.
- Complete with a C or better all specified nursing prerequisites and pre-nursing courses (N1335 Introduction to Professional Nursing; N3366 Pathophysiologic Processes: Implications for Nursing, and N3365 Pharmacology in Nursing Practice) prior to starting Junior I nursing courses. (See lower-division course list for details.)
- Have a minimum of 48 Freshman/Sophomore prerequisites/core credits prior to the Junior I semester.
- Complete 12 or more prerequisite science credit hours at time of application.
- Have 2 GPAs calculated: science and prerequisite.
- Have minimum science and prerequisite GPAs of 2.5.
- Completion of designated sections of the Health Education Systems, Inc. Admissions Assessment Exam (HESI A2).

Admission to Junior level (upper-division course work) is by ranking order based on space available.

Additional consideration will be given to students with 30 or more credit hours and/or 12 or more science credit hours completed at UT Arlington. Students with a previous degree will also receive additional consideration as will students with six hours or more of Honors College courses at UT Arlington.

NOTE: Students entering the Academic Partnership BSN online program must complete all prerequisites prior to beginning the program.

Lower Division Courses

Students must complete all nursing prerequisites and Sophomore level nursing courses with a C or better. A grade of D or lower in a prerequisite course indicates unsatisfactory preparation for further nursing education. Any such course in which a D or lower is received must be repeated before enrolling in any nursing course. This requirement is subject to the Three-Attempt Rule. A student unable to raise his or her grade to at least a C in a specified prerequisite course within three enrollments at UT Arlington and/or at any other institution shall be required to change his or her major to a field outside the College of Nursing. Enrollment in a course for a period of time sufficient for assignment of a grade, including a grade of W, is considered an attempt.

TOEFL Requirement

Applicants must receive a minimum score, as defined by the University, on the Test of English as a Foreign Language (TOEFL) if the applicant's native/first language is not English and if he or she does not hold a bachelor's or higher degree from an accredited U.S. institution. The exam is required for admission to the College of Nursing even if the student has met one of the stated University exemptions for the TOEFL.

Applicants who have graduated from secondary schools or colleges in the following countries are exempt from the TOEFL: Anguilla, Antigua, Australia, Bahamas, Barbados, Belize, Bermuda, British Virgin Islands, Canada (except Quebec), Cayman Islands, Dominica, Grenada, Grand Cayman, Guyana, Ireland, Jamaica, Liberia, Montserrat, New Zealand, Sierra Leone, St. Kitts and Nevis, St. Lucia, St. Vincent, Trinidad/Tobago, Turks and Caicos Islands, and United Kingdom.

Students who are not exempt based on the countries listed above, but who can provide documentation of attendance and graduation from a secondary English speaking school in their native country or the US, will be exempt from the requirement.

Transfer from Another Nursing Program

Nursing transfer students are defined as those students who have successfully completed prerequisite courses with a C or above and Junior I courses for the BSN Program: Health Promotion and Illness Prevention Across the Lifespan, Holistic Health Assessment, and Clinical Nursing Foundations at another college or university. Students who have not completed the required courses will be ranked with the incoming junior class. Admission as a transfer student to the College of Nursing is contingent upon available space. Transfer students must attend orientation.

- Transfer students must transfer all nursing courses and the grade received from those courses.
- The student must submit a course syllabus and a content outline of the course(s) to Undergraduate Student Services. If the course is a clinical course, a list of nursing skills learned in the course(s) must also be submitted.
- The lead teacher in the course, using the Field of Study Criteria Guidelines and other criteria related to the course, will review courses provided by the student for substitution of UT Arlington courses. Faculty may request additional information to clarify their decision. The course is then accepted as a substitution for a core nursing course, as an elective, or denied.

Students must submit:

- Letter from previous school stating that the student is in good standing

Students must have:

- Minimum cumulative GPA of 2.5
- No Ds or Fs in nursing courses
- Must meet application deadlines of:
  - April 1 - Fall Semester
  - October 1 - Spring Semester

Processing of the transfer procedure will not be initiated until the student has applied to the College of Nursing.

Orientations

All Junior I BSN students and transferring students are required to attend the general orientation held prior to the fall and spring semesters.

Clinical orientation is mandatory for all BSN students, as established by the Dallas/Fort Worth Hospital Council. BSN students are required to attend Junior Level and Senior Level Orientation annually.

- BSN students - prior to Junior I clinical courses and Senior I clinical courses. Part-time and transfer students must attend annually.

Honors Degree in Nursing

Nursing students who wish to graduate with an Honors Degree in Nursing must be members of the Honors College in good standing. Students must complete the Nursing degree requirements and the requirements of the Honors College. Contact the College of Nursing Honors Coordinator for further information.

Special Paraphernalia/Equipment Requirements:

All Nursing students entering the Undergraduate BSN pre-licensure program are required to have equipment that is required by health care settings in which students have practice experiences (such items shall include, but are not limited to: uniforms, identification badge, UTACON patch, Nurse Pack, stethoscope, watch with second hand, PDA or Smart Phone with stated specifications by the College of Nursing, etc). A complete list of equipment requirements are outlined on the College of Nursing website www.uta.edu/nursing.

Student Personal Laptop Policy:

Effective August 2010, all nursing students entering the undergraduate BSN pre-licensure program may be required to have a personal laptop computer configured to the College of Nursing's specifications. This requirement responds to the technical changes in the computerized testing platform for the RN licensing examination as well as the widespread adoption of computer technology in healthcare. Specifications are outlined on the College of Nursing website www.uta.edu/nursing.

Immunizations

Persons applying for admission to the College of Nursing must be immunized or provide information reflecting immunization against the following: measles, mumps and rubella (if born after January 1, 1957), Tdap, tetanus/diphtheria/pertusis, hepatitis B, and chicken pox. A negative PPD (TB test) or negative chest x-ray is required within 1 year, and repeated annually.

Certification-Cardiopulmonary Resuscitation

Evidence of successful completion of an approved course for health care providers is required upon admission and must be maintained throughout the program. Recommended CPR course is BCLS & AED for health care providers from the American Heart Association.

Health Insurance Coverage

All UT Arlington nursing students enrolled in clinical course(s) will be required to provide verification of medical insurance coverage that includes Emergency Department evaluation and follow-up treatment for needle-stick and blood borne disease exposure. This mandatory clinical requirement has been authorized by The University of Texas System Board of Regents.

As such, UT Arlington will not cover initial and follow up treatment for needle-stick injuries and/or exposure to blood borne diseases which may occur while students are enrolled in clinical courses.

While the UT Arlington College of Nursing recognizes the financial impact this clinical requirement presents for students, we also support the need for students to have health coverage for sudden illness, accidents, emergencies and exposure treatments that may occur in the clinical setting in a variety of clinical agencies.

Drug Screen Policy

Confirmation of a positive drug screening will result in removal from clinical courses for a period of one calendar year. Upon returning to the program, random drug screenings will be conducted throughout the program. A second positive test will render the student ineligible to continue in the program.

Random drug screens are at the student's expense and must be conducted at the UT Arlington Health Center. Failure to undergo a drug screen on the designated day will result in immediate withdrawal from the nursing program.

Criminal Background Screen

A student with a positive criminal background screen will not be admitted into the program without a Declaratory Order from the Texas Board of Nursing stating that the individual has been granted permission to write the National Council Licensure Examination for Registered Nurses (NCLEX-RN Examination) upon completion of the requirements for graduation and payment of any required fees. Eligibility to take the NCLEX-RN Examination may be affected by any inaccuracies in the petition, and any subsequent violations of the Nursing Practice Act that may affect eligibility to sit for the examination or the later revocation of a license obtained through misrepresentation.

Eligibility to Write the National Council Licensure Examination for Registered Nurses (NCLEX RN) - Declaratory Orders

The Texas Board of Nursing (BON) has set out guidelines and criteria on the eligibility of persons with criminal convictions to obtain a license as a registered nurse. The BON may refuse to admit persons to its licensure examinations, may refuse to issue a license or certificate of registration, or may refuse to issue a temporary permit to any individual who has any criminal offense, including pending appeal:

For any criminal offense, including those pending appeal, have you:

A. Been convicted of a misdemeanor:

B. Been convicted of a felony?

C. Pled nolo contendere, no contest, or guilty?

D. Received deferred adjudication?

E. Been placed on community supervision or court-ordered probation, whether or not adjudicated guilty?

F. Been sentenced to serve jail or prison time? Court-ordered confinement?

G. Been granted pre-trial diversion?

H. Been arrested or have any pending criminal charges?

I. Been cited or charged with any violation of the law?

J. Been subject of a court-martial; Article 15 violation; or received any form of military judgment/punishment/action?

(You may only exclude Class C misdemeanor traffic violations)

NOTE: Expunged and Sealed Offenses: While expunged or sealed offenses, arrests, tickets or citations need not be disclosed, it is your responsibility to ensure the offense, arrest, ticket or citation has, in fact, been expunged or sealed. It is recommended that you submit a copy of the Court Order expunging or sealing the record in question to the BON office with your application. Failure to reveal an offense, arrest, ticket or citation that is not in fact expunged or sealed, will, at a minimum, subject your license to a disciplinary fine. Non-disclosure of relevant offenses raises questions related to truthfulness and character.

NOTE: Orders of Non-Disclosure: Pursuant to Tex. Gov't Code § 552.142(b), if you have criminal matters that are the subject of an order of non-disclosure, you are not

required to reveal those criminal matters on this form. However, a criminal matter that is the subject of an order of non-disclosure may become a character and fitness issue. Pursuant to other sections of the Gov't Code chapter 411, the Texas Nursing Board is entitled to access criminal history record information that is the subject of an order of non-disclosure. If the Board discovers a criminal matter, the Board may require you to provide information about any conduct that raises issues of character.

- had *any* licensing authority refuse to issue a license or the licensing authority has ever revoked, annulled, cancelled, or the licensing authority accepted surrender of, suspended, placed on probation, refused to renew a professional license, certificate or multi-state privilege held by the individual, now or previously, or if the licensing authority has ever fined, censured, reprimanded or otherwise disciplined that individual;
- in the past 5 years, been addicted to and/or treated for the use of alcohol or any other drug;
- in the past 5 years, been diagnosed with, treated, or hospitalized for schizophrenia and/or psychotic disorders, bipolar disorder, paranoid personality disorder, antisocial personality disorder, or borderline personality disorder;
- DUIs, DWIs, or PIs: these are not minor traffic violations, and must be reported to the BON;

Detailed information related to determining eligibility and required processes to determine eligibility for your specific circumstances is available from the Texas Board of Nursing and on their Web site(www.bon.state.tx.us).

NOTE: Policies related to Eligibility to Write the National Council Licensure Examination for Registered Nurses (NCLEX-RN) may have changed. Students are responsible for confirming current policies and procedures that may apply to them by checking the Board of Nursing website. (www.bon.state.tx.us)

Professional Liability Insurance

Nursing students are required to have evidence of professional liability insurance coverage for a minimum of $1,000,000 limit each claim and $3,000,000 limit aggregate. The charge for coverage will be assessed as a mandatory fee at the time of registration.

Fees

In addition to fees applicable to the entire University, each nursing course includes a $3 School of Nursing multimedia fee and may include other course fees. Course fee information is available at www.uta.edu/fees. Additional costs beyond tuition, fees and books that may be incurred by a nursing student will include those items listed in the catalog under the Special Paraphernalia/Equipment Requirements and Student Personal Laptop Policy and detailed on the College of Nursing website www.uta.edu/nursing.

Oral Communication Proficiency Requirement

Oral proficiency is recognized to be a critical component of providing safe nursing care. In addition to content-specific presentations in various nursing courses, all nursing students are required to communicate effectively with clients, members of the health care team, and faculty. Contact Undergraduate Program Directors for more information.

E-mail Accounts

Each student will be provided a UT Arlington e-mail address. Official communications from the College of Nursing will be distributed to this e-mail address and Web CT accounts required by many courses. Students will be held responsible for information distributed in this manner.

Nursing Course Withdrawal Policy

Students within the program, enrolled in an upper division NURS course, are permitted to drop the course one time. Upon attempting the course for the second time, the earned grade is retained. Students may drop no more than three upper division NURS courses during their undergraduate career.

Elective and pre-nursing courses are exempt from this policy.

Exceptions to this policy may be entertained because of extraordinary non-academic circumstances.

Movement Between Programs

Students who have started the BSN traditional in-the-seat programs cannot move to the AP:BSN online program.

Online AP BSN Students Who Drop or Fail a Course

Students who either withdraw from or fail a Jr I AP-BSN course can repeat that course the next time the course is offered for the same partner. If a student requests to move to the traditional in-the-seat program, they will be placed in the pool of students applying for the next traditional BSN program start date. These AP students will be ranked along with the other applicants who are in the pool and will not be given preference because they had previously been accepted into the AP-BSN program.

AP-BSN students who withdraw or fail a course in Jr II, Sr I, or Sr II can repeat the course online within the same cohort (partner) the next available time the course is offered. If the student requests to move to the traditional, in-the-seat program, they may do so if space is available in the classroom and clinical.

Clinical Courses

To pass a clinical course, the student must pass both the didactic and the clinical components of that course.

Clinical Attendance When University is Closed

Some programs in the College of Nursing, such as the Academic Partnership Program, may require students to attend clinical on evenings, nights, week-ends, or holidays. Students are expected to attend their assigned clinical rotation as scheduled, even when the University is otherwise closed.

Progression

Students will not be permitted to continue in the nursing program or to enroll for additional courses if they:

- Receive a grade of D or F in more than one nursing course, or
- Receive any combination of grades of D or F on two attempts of the same course.
- Do not obtain a passing score on the HESI Comprehensive Exam
- The University grade replacement/exclusion policy is limited by the College of Nursing and is not applicable to nursing courses.

A student in the RN to BSN Program who earns a second D or F in a nursing course will

be placed on probation. The student must earn a C or above in all subsequent courses in order to remain in the program.

Required Testing

Students are required to take nationally normed tests throughout the Junior and Senior years of the BSN program and to make a satisfactory score on such tests. In the Senior year, students are required to take a comprehensive exam and to make a satisfactory score on such an exam prior to graduation.

Prior to Enrollment

The following semester hours must be completed prior to enrollment in upper-division nursing courses except as noted:

	Hours	
Natural Sciences		
Human Anatomy and Physiology I and II	8 [1,2,4,5]	
Microbiology	4 [2,5]	
General Chemistry and Biological Chemistry	4 [2,5]	
	sub total hours:	16 [2]
Behavioral Sciences		
Introduction to Psychology	3 [5]	
Sociology or Anthropology	3 [4,5,6]	
Developmental Psychology (Lifespan)	3 [5]	
	sub total hours:	9
Nursing		
NURS 2240 Concepts	2 [5]	
NURS 3365 Pharmacology	3 [5]	
NURS 3366 Pathophysiology	3 [5]	
	sub total hours:	8
Other		
Fine Arts (architecture, art, dance, music or theatre arts)	3 [4,6]	
College Algebra (Mathematical Modeling or	3 [4]	

higher)		
Statistics	3 [4,5]	
U.S. History I and II	6 [3,4,6]	
U.S. and Texas Government	6 [3,4,6]	
English Composition I and II	6 [4]	
English Literature	3 [4,6]	
Technical Writing	3 [4,6]	
	sub total hours:	33
	TOTAL (Courses)	66 hours

[1] If part of a two-semester sequence, both courses are required.
[2] Must contain a lab component.
[3]House Bill 935, passed by the Sixtieth Legislature, provides that no person may receive an undergraduate degree unless she/he has taken and passed six semester hours in American political science and six semester hours in United States history.
[4] Degree Plan Core Curriculum courses.
[5] Degree Plan Program Specific courses.
[6] May be completed after enrollment in junior nursing courses.

Suggested Course Sequence

The following semester hours must be completed for graduation.

Junior Year

First Semester: NURS 3320, 3333, 3632

Second Semester: NURS 3481, 3561, 3321, 3261

Summer Session: 3 hours of upper-division electives.

Senior Year

(Students must have an approved degree plan prior to registration for this year.)

First Semester: NURS 4431, 4441, 4581

Second Semester: NURS 4350, 4462, 4351, 4223

RN to BSN Program

Essential Performance Standards for Admission and Progression in the College of Nursing

It is the philosophy of the University of Texas at Arlington College of Nursing (UTACON) that the baccalaureate program is designed to prepare a competent, self-directed, general practitioner of nursing who can assume increasing responsibility and leadership in the delivery of nursing care. In consideration of the

preparation of a general practitioner, all individuals who apply for admission and are enrolled in the undergraduate program must be able to perform the essential functions of a student of nursing.

The College of Nursing has identified areas of essential functioning: communication, hearing, visual and motor. The student enrolled in the program must demonstrate mastery of components comprising each of the four areas.

Qualified applicants are admitted without discrimination with regard to race, color, national origin or ancestry, gender, age, religion, sexual orientation, veteran status or disability (reasonable accommodations will be made within the Americans with Disabilities Act guidelines).

More detailed information is available on the nursing website www.uta.edu/nursing in the Student Handbook.

Admission Requirements

Students may be admitted or may transfer to UT Arlington upon meeting the admission or transfer requirements established by the University. Students who designate themselves as nursing majors will be advised by the College of Nursing in Undergraduate Student Services. Official transcripts must be submitted to the UT Arlington Office of Admissions.

Registered nurses desiring admission to this program must:

- Complete listed prerequisites with a minimum prerequisite GPA of 2.5
- Meet the TOEFL requirement (if applicable)

Credit by RN Licensure

Transcripts of RN students are evaluated with consideration of the Coordinating Board Field of Study Curriculum guidelines. Credit is given for all courses listed in the Field of Study Curriculum as transferable as well as any additional courses that may be applicable for transfer for a total of 28 hours.

Certain other conditions apply:

- If the student earned one D or F in a nursing course at another college or school of nursing, they will be admitted unconditionally. If the student earns a subsequent D or F at UT Arlington, he/she will be placed on probation. The student must earn a C or above in all subsequent courses in order to remain in the program.
- If the student has earned more than one D or F in nursing courses at another college or school of nursing, the student will enter UT Arlington on a probationary basis. The student must earn a C or above in all subsequent courses at UT Arlington in order to remain in the program.

TOEFL Requirement

Applicants must receive a minimum score, as defined by the University, on the Test of English as a Foreign Language (TOEFL) if the applicant's native/first language is not English and if he or she does not hold a bachelor's or higher degree from an accredited U.S. institution. The exam is required for admission to the College of Nursing even if the student has met one of the stated University exemptions for the TOEFL.

Applicants who have graduated from secondary schools or colleges in the following countries are exempt from the TOEFL: Anguilla, Antigua, Australia,

Bahamas, Barbados, Belize, Bermuda, British Virgin Islands, Canada (except Quebec), Cayman Islands, Dominica, Grenada, Grand Cayman, Guyana, Ireland, Jamaica, Liberia, Montserrat, New Zealand, Sierra Leone, St. Kitts and Nevis, St. Lucia, St. Vincent, Trinidad/Tobago, Turks and Caicos Islands, and United Kingdom.

Students who are not exempt based on the countries listed above, but who can provide documentation of attendance and graduation from a secondary English speaking school in their native country or the US, will be exempt from the requirement.

Orientation

All Junior RN-BSN students and transferring RN-BSN students are required to attend the general orientation held prior to entering their Junior semester.

Progression:

The University grade replacement/exclusion policy is limited by the College of Nursing and is not applicable to nursing courses.

- A student in the RN to BSN Program who earns a second D or F will be placed on probation. The student must earn a C or above in all subsequent courses in order to remain in the program.

Fees

In addition to fees applicable to the entire University, each nursing course includes a $3 College of Nursing multimedia fee and may include other course fees. Course fee information is available at www.uta.edu/fees. Additional costs beyond tuition, fees and books that may be incurred by a nursing student in this program will be detailed on the College of Nursing website www.uta.edu/nursing.

Oral Communication Proficiency Requirement

Oral proficiency is recognized to be a critical component of providing safe nursing care. In addition to content-specific presentations in various nursing courses, all nursing students are required to communicate effectively with clients, members of the health care team, and faculty. Contact Undergraduate Program Directors for more information.

E-mail Accounts

Each student will be provided a UT Arlington e-mail address. Official communications from the College of Nursing will be distributed to this e-mail address and Web CT accounts required by many courses. Students will be held responsible for information distributed in this manner.

Movement Between Programs

Students who have started the RN to BSN traditional in-the-seat programs cannot move to the AP:RN-BSN online program.

Prior to Enrollment

	Hours	
Natural Sciences		
Human Anatomy and Physiology I and II	8 [1,2,4,5]	

Microbiology or Bacteriology	4 [2,5]	
	sub total hours:	12 [2]
English		
Composition I and II	6 [4]	
English Literature	3 [4,6]	
Liberal Arts Elective: 3 hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing. Course must have a writing component.	3 [4]	
	sub total hours:	12
History and Government		
American History I and II	6 [3,4,6]	

U.S. Government and Texas State and Local Government	6 [3,4,6]	
	sub total hours:	12
Behavioral Sciences		
Introduction to Psychology	3 [5]	
Sociology or Anthropology	3 [4,5,6]	
Developmental Psychology (Lifespan)	3 [5]	
	sub total hours:	9
Other		
Fine Arts (architecture, art, dance, music or theatre arts)	3 [4,6]	
College Algebra (or substitute with Mathematical Modeling)	3 [4,6]	
Statistics	3 [4,5]	

	sub total hours:	9
Upper division elective	3[6*]	
	TOTAL (Courses)	57 hours

[1] If part of a two-semester sequence, both courses are required.
[2] Must contain a laboratory component.
[3] House Bill 935, passed by the Sixtieth Legislature, provides that no person may receive an undergraduate degree unless she/he has taken and passed six semester hours in American political science and six semester hours in United States history.
[4] Degree Plan Core Curriculum courses.
[5] Degree Plan Program Specific courses.
[6] May be completed after enrollment in nursing program.

*The upper division elective course is in addition to the 3 credit hour upper division nursing elective requirement included in the 35 credit RN to BSN Nursing Course listing. This general 3 credit requirement can be met by taking any upper division elective course (including a second nursing elective), or by providing documentation of being certified through a nationally recognized nursing certification examination, or by completing a work-based project in the Nursing Cooperative Education (Co-Op) Program

Junior Semester: NURS 3325, 3645, 3425, 3335-Total Credit 16 hours.

Senior Semester: NURS 4325, 4455, 4465, 4585-Total Credit 16 hours.

Electives: 3 hours of upper-division nursing electives. Elective credit may be awarded for national certifications.

Nursing Faculty

Dean

Professor Poster

Professors

Bond, Cason, Mancini

Associate Professors

C.Anderson, Courtney, Gray, Hegstad, Raudonis, Schmelzer

Assistant Professors

John

Clinical Professor

Snow

Clinical Associate Professors

Baker, Barr, LeFlore, Schira, Turpin

Clinical Assistant Professors

Adams, Handy, Palmer, Willson

Clinical Instructors

Aguilar, M. Anderson, Bacchus, Baird, Bates, Behan, Bertram, Boyd, Cleary, Cope, Cross, Dennison, Estrada Ewing, Flores, Franks, Gainer, Hadley, Hanks, Harber, Harris, Hartman, Hennes, Jenkins, Justice, LeClair, Lewis, Logan, Lowry, Mangold, Marshall, Martin, Maryol, McLean, Meyer, Michael, Michal, B. Miles, G. Miles, S. Miles, Mitschke, Morr, A. Myers, H. Myers, Nelson, Palmer, Priddy, Plusnick, Reynolds, Roye, Stephens, Stiller, Thames, Walker, D. Wright, T. Wright

Professors Emeritus

Pickard, Heusinkveld, Kyba, Grove, Burns

General Science

Dean: Pam Jansma, Ph.D.
206 Life Science Bldg. · Box 19047 ·
817-272-3491
www.uta.edu/cos

Overview

Pursuit of knowledge through scientific study has been the cornerstone of human accomplishment throughout history. The College of Science continues this tradition by providing undergraduate students with curricula that allow exploration and mastery of both the basic concepts and most recent advances of modern science and preparation for professional scientific careers. The College of Science consists of the departments of Biology, Chemistry and Biochemistry, Earth and Environmental Sciences, Mathematics, Physics, and Psychology. Bachelor of Science (B.S.) and Bachelor of Arts (B.A.) degrees offered by these departments prepare students to pursue a wide variety of rewarding, professional scientific careers or graduate study. Bachelor of Arts and Bachelor of Science degrees are offered in all departments. Bachelor of Arts degrees allow students to develop a broad liberal education with a concentration in science and are particularly appropriate for careers in science teaching. Bachelor of Science degrees provide students with a more intensive background in science, preparing them for advanced graduate study or entry into exciting technological careers in industry, medicine, government, business, or commerce. A wide range of degree options within departmental B.S. programs provide students with career-oriented course work required to pursue professional career paths in specific scientific fields. All departments within the college provide highly accessible student academic and career advising that support customization of degree plans to meet a student's specific career goals.

The College of Science fosters interaction between students and faculty. Faculty actively participate as advisors to student scientific societies and are readily available to assist or advise students both within and outside the classroom. Faculty members in all departments actively participate in research supported by world-class research facilities and modern scientific equipment. Undergraduate science majors are encouraged to engage in research under the supervision of a faculty member of their choice, many of whom have international reputations for their scholarly contributions. Students can receive course credit for supervised research.

Beyond the undergraduate degree, the College of Science offers programs leading to graduate degrees. All departments offer Master of Science degrees (M.S.) that allow students to pursue technologically intensive careers in public or private arenas. A Master of Arts in Science (M.A.I.S.) degree program

specifically prepares students for careers as science teachers. The departments of Biology, Chemistry and Biochemistry, Earth and Environmental Sciences, Mathematics, Physics and Psychology offer the Doctor of Philosophy degree (Ph.D.) that allows students to carry out independent dissertation research within a chosen scientific specialty, leading to careers in research and/or university teaching. The M.S. and Ph.D. degrees offered by the Graduate Program in Environmental Science and Engineering prepare students for careers as environmental professionals. The Graduate Catalog provides details of the college's master's and doctoral degree programs.

Also available to undergraduate students in the College of Science are unique and innovative combined degree programs leading to both a B.S. degree and a graduate or professional degree within an accelerated time frame. These combined degree programs include the five-year Bachelor of Science (B.S.) in Biology/Master of Business Administration (M.B.A.) degree programs in Health Care and Biomedical Sciences Management and a five-year B.S. in Biology/Master of Biomedical Engineering (M.B.E.) degree program (see the Department of Biology section of this catalog for detailed descriptions of these programs).

The College of Science takes pride in offering students outstanding degree programs in all of its departments. These programs are marked by excellent teaching, broad undergraduate research opportunities and superior academic and career advising. Graduates of these degree programs are highly competitive in the job market or when applying to nationally recognized graduate or health professions schools. Please visit the College of Science and speak with one of our advisors. Call 817-272-3491 to make an appointment.

Opportunities in Science

The future marvels of the 21st century will spring from science just as did those of the 20th century. The human genome project, miracle drugs, efficient fuels, arrays of new synthetic materials, the transistor, the laser, nuclear power, solar energy, computers, the Worldwide Web, global information systems, the electron microscope, nanotechnology, bioinformatics and sophisticated techniques for locating mineral deposits are merely a few examples of the crowning scientific achievements of the past century. Discoveries of similar or greater magnitude lie ahead in this new century as scientists bring their talents to bear on modern society's pressing problems such as alternative energy sources, environmental protection, and improved health care. Students graduating from College of Science degree programs have the unique opportunity to participate in this century of new and unparalleled scientific discovery.

Requirements for Admission to the College of Science

The University of Texas at Arlington does not admit students to specific degree programs. Instead students wishing to pursue a major in one of the College of Science undergraduate degree programs must apply to the appropriate academic unit for acceptance into that program. Students should familiarize themselves with the general requirements for acceptance to the degree program of their choice as well as the specific requirements for granting of the degree.

Academic Policies for College of Science Majors

In the College of Science, students are required to maintain a minimum overall GPA of 2.25 in all their course work as well as a minimum GPA of 2.25 in their major course work in order to remain in good standing within their degree program. Students whose overall or major GPA falls below 2.25 will be dropped as a major in the College of Science and must select an alternative major.

The general College of Science policy on academic probation may be superseded by more rigorous policies within specific science degree programs.

Academic Policies for Science Minors

A science minor consists of 18 credit hours or more in any one of the departments within the college. At least 6 of the 18 hours must be in advanced 3000 or 4000 level courses. All classes that are to be used toward a minor must also be applicable toward a major in the same discipline. Non majors courses may not be applied toward a minor.

A 2.0 grade average must be maintained in the minor In order to be approved by the minor department. All classes for a science minor must be approved by an academic advisor in the minor department. Transfer students must complete at least nine hours toward the minor at UT Arlington, and six of the nine must be 3000 or 4000 level.

Transfer Students

Field of Study:

Students who complete an approved field of study curriculum in whole or in part will receive academic credit for the equivalent courses within their selected field of study at UT Arlington. To view the field of study curriculums approved by the Texas Higher Education Coordinating Board, visit www.thecb.state.tx.us.

Core Complete:

Students who transfer from a Texas community college or university and are certified as core complete shall have satisfied the core requirements of UT Arlington. Academic departments may, in some instances, require specific courses outside the major as prerequisites for major course work.

Academic Standards:

Students who wish to be admitted to a department within the College of Science must have a grade point average of 2.25 or higher in all college course work completed prior to application for admission to the UT Arlington College of Science.

Competence in Computer Use

Graduating students are expected to be proficient in the use of computers. Proficiency is considered to be the ability to utilize word-processing, database/spreadsheet, statistical, graphical and other representative software applications in a student's major discipline. Each student should be able to tap the communications, analytical, and information-retrieval potential of computers to solve scientific problems and evaluate research results. Students should consult with their individual department, school or college undergraduate advisors to determine the mechanisms by which they can demonstrate computer competency. A student may be required to pass a proficiency examination or complete a department- or college-designated computer proficiency course to meet this requirement.

Competence in Oral Presentations

Graduating students are expected to have proficiency in oral communication skills including interaction in classroom settings to meet the needs of their course work and utilization of acceptable grammar and pronunciation in formal presentations. Students should consult their individual department, school or college undergraduate advisors to determine the mechanisms by which they can demonstrate oral communication skills competency. A student may be required to pass a proficiency examination or complete a department- or college-designated oral communication skills course to meet this requirement.

Substitutions for Modern and Classical Languages in the College of Science Bachelor of Arts Degree Requirements

With the approval of the major advisor and the Dean of Science, a student may substitute two courses in a single area cluster for six hours of a modern or classical language. The area clusters:

African American area cluster
HIST 3365. African-American History to 1865
HIST 3366. African-American History, 1865-present
POLS 4318. Politics of African Americans
HIST 4374. African History I
HIST 4375. African History II
HIST 4376. African Diaspora I
HIST 4377. African Diaspora II

Mexican area cluster
ANTH 3346. Cultures of the American Southwest
HIST 3368. The History of the Mexican American
HIST 3369. The History of Latino Religions
HIST 4368. History of Mexico
POLS 3317. Mexican Politics & US Mexico Relations
POLS 4319. Politics of Mexican Americans

American Indian area cluster
ANTH 3333. North American Indians
ANTH 3350. North American Archaeology
HIST 3367. American Indian History
HIST 3370. The Image of the American West

Russian area cluster
ENGL 3301. Russian Literature in Translation
HIST 4359. History of Russia to 1855
HIST 4360. History of Russia since 1855
POLS 4365. Foreign Policies of Russia and the Successor States

Latin America area cluster
ART 3320. Meso-American Art
HIST 4365. History of Spain and Portugal
HIST 4366. Latin American History: Origins Through Independence
HIST 4367. Latin American History: Post-Independence to the Present
POLS 3316. Dictatorship and Democracy in Latin American Politics
POLS 4319. Politics of Mexican Americans

One of ANTH 2322, Global Cultures, or ANTH 3331, Culture and Personality, or LING 2301, Introduction to the Study of Human Languages, may substitute for three hours in one of the area clusters.

Premedical/Predental and Post Baccalaureate Professional Programs

Advising of premedical/dental/pharmacy/optometry and veterinary medicine students is provided by the Office of the Dean of Science, Room 206 in the Life Science Building. Services for students include preadmission counseling, career counseling,

and assistance in applying to professional schools. Many medical and dental schools request a recommendation from the applicant's undergraduate institution. At The University of Texas at Arlington, this recommendation is provided by the Health Professions Advisory Committee. The purpose of the Committee is to interview and evaluate applicants for admission to medical or dental school. Criteria for obtaining a Committee recommendation are established by the Committee and are periodically reviewed. Students planning to apply to professional schools should contact the Health Professions Advisor in the Office of the Dean of Science at least one year prior to making application.

Medical and dental school applicants should begin the application process in January of the year preceding their intended entry to professional school. An applicant's file should be complete, including the Health Professions Advisory Committee evaluation by the following May 1.

Students who plan to enroll for the fall MCAT and DAT examinations are expected to follow the spring application process. The professional schools will hold the applicant's credentials until MCAT and DAT scores are received.

Premedical and Predental Curriculum

In general, medical and dental school admission committees do not state a preference regarding an applicant's undergraduate major, leaving students to choose a degree program best suited to their special abilities and interests. Therefore, a student may choose any major, after conferring with the Health Professions Advisor, as long as the minimum requirements for admission to the medical or dental school are met. The minimum admission requirements for medical and dental school in Texas are set out below with the corresponding UT Arlington courses indicated in parentheses.

Biology

14 semester hours: 12 hours lecture, 2 hours lab (1441 and three additional courses).

Chemistry

16 semester hours: 8 hours general chemistry with lab (1441, 1442), and 8 hours organic chemistry with lab (2321/2181, 2322/2182).*

English

6 semester hours (1301, 1302).

Mathematics

One course of calculus (1426) (not required for admission to dental schools).

Physics

8 semester hours including lab (1441/1442 or 1443/1444).

Test

The Medical College Admission Test (MCAT) or the Dental Aptitude Test (DAT) is required.

*Baylor Dental School and UTHSC Houston Dental School require one course in Biochemistry (CHEM 4311).

The requirements listed here are representative of admission requirements for most American medical and dental schools.

Pre-Optometry

A minimum of 90 credit hours of course work is required for admission to the University of Houston, College of Optometry. The following list of courses must be completed prior to matriculation at the College of Optometry. Applicants will also be expected to receive acceptable scores on the Optometry College Aptitude Test.

Biology

1441, 1442, 2457, 2458, 3442, 3444

Inorganic Chemistry

1441, 1442

Organic Chemistry

2321 and 2181, 2322 and 2182

Biochemistry

4311

Physics

1441, 1442

Calculus

1426

Psychology

1315, 2443

English Composition

6 credit hours

English Literature

6 credit hours

Pre-Pharmacy (UT Austin)

A minimum of 60 credit hours of course work is required for admission to The University of Texas College of Pharmacy in Austin. The following list of courses must be taken prior to matriculation in the College of Pharmacy. Applicants will also be expected to receive acceptable scores on the Pharmacy College Aptitude Test or other examination acceptable to the College of Pharmacy.

Biology

1441, 1442, 3315, 3444

Inorganic Chemistry

1441, 1442

Organic Chemistry

2321 and 2181, 2322 and 2182

Physics

1441

Mathematics

1308, 1426

English Composition

1301

English Literature

3 credit hours

History

1311, 1312

Political Science

2311, 2312

Fine Arts or Humanities

3 credit hours

Social Science

3 credit hours

Modern and Classical Languages

1441, 1442 or 2 years of a single foreign language in high school

Pre-Veterinary Medicine

A minimum of 64 credit hours of course work is required for admission to the Texas A&M College of Veterinary Medicine. The following list of courses must be completed prior to matriculation at A&M. Applicants will also be expected to receive acceptable scores on the Graduate Record Examination and to have experience working with veterinarians who care for large and small animals.

Biology

1441, 3315, 3444

Animal Nutrition

(Not offered at UT Arlington)

Inorganic Chemistry

1441, 1442

Organic Chemistry

2321 and 2181, 2322 and 2182

Biochemistry

4311

Physics

1441, 1442

Calculus

1426

English Composition

1301

English Literature

3 credit hours

Communications Studies

COMS 1301

Technical Writing

BIOL 3305

All preprofessional applicants should contact the advisor for suggested course sequences, prerequisites, suggested work experience, recommendation letters, and assistance in applying to these or other professional schools.

Post Baccalaureate Premedical Program

The post baccalaureate premedical program is designed for those students who have previously completed a bachelor's degree and wish to pursue admission to medical school. Since student backgrounds may vary, each post baccalaureate program is custom designed for the individual student. Students in this program may complete premedical requirements in one to two years depending upon their undergraduate major and the time of entry to the program.

Foreign Clinical Experience

Students who wish to gain experience providing care for underserved persons outside the U.S. may enroll in a summer Foreign Clinical Experience Program jointly coordinated by the School of Nursing and the College of Science. Students in this program first take a class that familiarizes them with the culture of the country they are visiting. They then travel to the host country where they assist in a designated clinical setting. Upon completion of the experience, students submit a paper summarizing what they have learned and are awarded course credit for their experience.

Allied Health Programs

The University of Texas at Arlington offers prerequisites for a number of programs in the allied health sciences. Career counseling, degree plan evaluation and assistance in procuring hands-on experience are available for students seeking degrees in:

Health Care Administration

Physical Therapy

Dental Hygiene

Physician's Assistant

Prosthetics and Orthotics

Medical Technology*

Dietetics

as well as other related fields. These services are offered through the office of the Allied Health Coordinator, Department of Biology, Room 351, Life Science Building.

*The program leading to a Bachelor of Science Degree in Medical Technology is described under the Department of Biology.

Teacher Certification in the Sciences

Programs leading to teacher certification at secondary levels are available in all departments of the College of Science in coordination with the College of Education. Included among these are secondary certification in Composite Science offered in the Departments of Biology, Chemistry and Biochemistry, and Physics; in Life-Earth Science offered in the Departments of Biology, and Earth and Environmental Sciences; and in Physical Science offered in the Departments of Chemistry and Biochemistry, and Physics. Descriptions of these programs are provided in the College of Education section of this catalog.

Transfer Students

Students transferring from other institutions are invited to explore opportunities in the College of Science. Inquiries about the equivalency of their transferred courses and other questions related to transferring are welcome in the

Office of the Dean of Science, 206 Life Science Building.

Students who plan to attend junior college or another senior college before entering UT Arlington can receive assistance in planning their course work programs and potentially avoid needless delay of graduation by consulting an advisor in the Office of the Dean of Science (206 Life Science Building) before matriculating.

Science Constituency Council

The Science Constituency Council is the official representative student organization for the College of Science with Student Government. Meeting twice monthly, the SCC serves both the College and its students. The SCC strives to involve a greater number of students in all aspects of the College of Science. SCC members are majors in the departments of the College. At least half of the voting members are elected during Student Congress elections. Self-nomination is encouraged.

Science Education and Career Center

501 S. Nedderman Dr. · 106 Life Science Bldg. · 817-272-2129

The Science Education and Career Center is an on-site resource facility designed to support student learning and course work in science and mathematics through self-study modules and a variety of study aids. In cooperation with College of Science faculty, the center offers a full spectrum of multimedia resource materials and study aids for students in biology, chemistry, geology, mathematics, physics and psychology classes. The Science Education and Career Center also provides students with a broad spectrum of information on career opportunities in science and career development presentations from a wide variety of scientific fields. The center also provides students with quiet study areas and a study lounge.

Materials currently available include:

- Videotapes
- VCR viewing stations
- Study guides and sample exams
- Lab notes and solutions manuals
- Interactive CD-ROMs
- Hands-on models
- Science careers resources and counseling
- On-site photocopiers
- Networked computers

Math Clinic

The Math Clinic is a service provided on a walk-in basis for all math students enrolled in Math 0301, 0302, 1301, 1302, 1303, 1308, 1315, 1316, 1323, 1324, 1325, 1426, 2325, 2326, and 3319. It is located in Room 314, Pickard Hall, and is open seven days a week. The tutors are outstanding undergraduate students with demonstrated abilities for helping students.

Physics Clinic

The Physics Clinic is a tutoring service provided on a walk-in basis for students enrolled in Physics 1441, 1442, 1443 and 1444. The tutors include graduate students, faculty and outstanding undergraduates. The location and times are posted in the Physics Department Office, 108 Science Hall.

Science and Mathematics for the Non-Science Major

The College of Science provides a wide variety of science courses for non-science majors. These courses, including those listed below, have been specifically designed to be applicable to science and mathematics requirements for non-science majors. Non-major students should examine the requirements for their degrees before selecting science courses to meet those requirements. The listed courses are also intended to stimulate interest in science and mathematics beyond the specific degree requirements for non-science majors. The courses named have no prerequisites, few prerequisites, or prerequisites consisting of introductory courses only. The figures in parenthesis indicate the number of hours of instruction per week in the Fall and Spring Semesters. The first figure indicates the amount of time devoted to theory, and the second indicates the amount of time devoted to laboratory work.

Biology

1282. Introduction to Biology Laboratory (1-2)
1301. Nutrition (3-0)
1333. Introduction to Biology (3-0)
1334. Introduction to Biology (3-0)
2317. Basic Concepts in Human Sexuality (3-0)
3303. Drugs and Behavior (3-0)

Chemistry

1300. Introductory Chemical Principles (3-0)
1445. Chemistry for Non-Science Majors (3-3)
1446. Chemistry for Non-Science Majors (3-3)
1451. General and Biological Chemistry (3-3)

Geology

1425. Earth Systems (3-1)
1426. Earth History (3-1)
1430. Global Environmental Issues (3-1)
1450. Environmental Geology of the Dallas/Fort Worth Metroplex (3-1)
2401. Weather and Climate (3-1)
2404. Geologic Hazards (3-1)
2405. History of Life and Geologic Time (3-1)
2410. Planetary Geology (3-1)

3403. Volcanoes and Volcanic Processes (3-1)

Mathematics

1301. Elementary Mathematical Modeling
1302. College Algebra (3-0)
1308. Elementary Statistical Analysis (3-0)
1315. College Algebra for Economics and Business Analysis (3-0)

Physics

1400. Introduction to Musical Acoustics (3-0)
1401. Physics for Nonspecialists I (3-2)
1402. Physics for Nonspecialists II (3-2)
1445. Introductory Astronomy I (3-2)
1446. Introductory Astronomy II (3-2)

Psychology

The psychology courses listed below are of general interest. Such courses contribute significantly to a well-balanced education even though they do not apply to any science requirement. Courses marked with an asterisk can be taken as biology.

1315. Introduction to Psychology (3-0)
2310. Behavior Management and Modification (3-0)
2317. Basic Concepts in Human Sexuality (3-0)*
2443. Psychological Statistics (3-2)
3301. Human Relations (3-0)
3303. Drugs and Behavior (3-0)*
3306. Psychology of Creativity and Creative Thinking (3-0)
3310. Developmental Psychology (3-0)
3311. Aging and Adulthood (3-0)
3312. Infancy and Early Childhood (3-0)
3313. Psychology of Cultural & Gender Diversity (3-0)
3314. Psychology of Personality (3-0)
3315. Social Psychology (3-0)
3316. Environmental Psychology (3-0)
3317. Introduction to Clinical and Counseling Psychology (3-0)
3318. Abnormal Psychology (3-0)
3326. Animal Behavior (3-0)*

University College

241 Davis Hall • Box 19196 · 817-272-3140
www.uta.edu/universitycollege

University College Mission Statement

University College promotes student learning and development by providing coordinated and centralized academic resources and support services that help students define their educational goals and pursue a path toward graduation. In addition, University College serves as a focal point for campus programming that helps first year students successfully transition to college life and meet the academic challenges set by the faculty.

University College Affiliations

The UT Arlington University College is a member of the Association of Deans and Directors of University Colleges and Undergraduate Studies [http://www.bsu.edu/web/adandd/index.html].

University College Programs and Services

While University College will have a focus on assisting freshman students as they transition to college, the programs and services offered in University College serve all students who seek academic support during their academic careers at UT Arlington.

General Services

- Counseling Services offers personal and group counseling as well as academic workshops.
- The McNair Scholars program provides research and mentoring opportunities to eligible undergraduate students to prepare them for graduate study.
- Student Support Services provides free academic support to U.S. citizens or permanent residents who are either first generation, low income, and/or disabled. University Tutorial and Supplemental Instruction offers one-on-one tutoring for $6.50 per hour and peer facilitated study groups for certain courses at no charge.
- University Advising Center advises all incoming freshman students (up to 30 credit hours) as well as

undeclared and conditionally admitted transfer students. Academic advisors also guide students in the majors exploration process.

Freshman-Focused Programs

- Maverick Scholars Freshman Interest Groups and Learning Communities [www.uta.edu/lc] groups students with like interests and majors in a freshman seminar and common coursework under the mentorship of faculty and peer academic leaders (PALs).
- The Gateway Advantage students receive a personalized advising experience and have the opportunity to take a freshman seminar which teaches academic self-management and study skills grounded in the theory for why these techniques work they way they do.
- Freshman PASS is a freshman seminar offered to students who experienced some academic difficulty in their first semester.
- The OneBook program gives all freshman students at least one common experience – a select book that is taught in ENGL 1301 and engaging campus events related to the theme of the book.

Bachelor of Arts in University Studies

Please visit: University Studies

The Department of Industrial and Manufacturing Systems Engineering

420 Woolf Hall · Box 19017 · 817-272-3092
www.uta.edu/ie

Requirements for a Bachelor of Science Degree in Industrial Engineering

Pre-Professional Courses

(All pre-professional courses should be completed before enrolling in professional courses.)

English

1301, 1302.

Mathematics

1426*, 2425, 2326, 3319.

Natural Science

CHEM 1465 and approved science elective or CHEM 1441 and 1442; PHYS 1443 and 1444.

Design Graphics

MAE 1350 or CE 1350.

Computer Science and Engineering

CSE 1311 or approved alternative.

Industrial Engineering

1104, 1105, 3301, 3312, 3315.

General Education Courses

History

1311, 1312.

Political Science

2311, 2312.

Literature

Three hours of English or modern and classical languages literature or other approved substitute. For engineering majors this University requirement must be met by taking English literature (2000 or higher).

Liberal Arts Elective

For IE majors, COMS 3302 must be used to satisfy this requirement.

Fine Arts**

Three hours in architecture, art, dance, music, or theatre arts.

Social/Cultural Studies**

Three hours in social or cultural studies.

Professional Courses

Industrial Engineering

3314, 3343, 4302, 4303, 4308, 4315, 4318, 4322, 4325, 4339, 4343, 4344, 4345, 4350.

Technical Electives**

Nine hours of technical electives.

Pre-Professional Total

53 hours.

General Education Total

24 hours.

Professional Total

51 hours.

Total (for degree)***

128 hours.

*Placement in MATH 1426 is based on prior preparation, SAT scores, and UT Arlington math placement scores.

**Lists of acceptable (a) fine arts, (b) social/cultural, and (c) technical electives are available in the departmental office. Electives must have prior approval from the undergraduate advisor. The undergraduate advisor will help each student construct a sequence of three technical electives to address specific student interests. In most cases, the student will be encouraged to use these electives to acquire additional knowledge in a single technical area.

***Total hours will depend upon prior preparation and academic qualifications. Also, students who do not have two units of high school foreign language will be required to take modern and classical languages courses in addition to the previously listed requirements.

Refer to the College of Engineering section of this catalog for information concerning the following topics: Preparation in High School for Admission to the College of

Engineering, Admission to the College of Engineering, Admission to the Professional Program, Counseling, College of Engineering Academic Regulations, Transfer Policies, College of Engineering Probation, Repeating Course Policy, Academic Honesty, and Modern and Classical Languages Requirement.

The Industrial and Manufacturing Systems Engineering Department conducts academic advising each semester. Each student must make an appointment to meet with the undergraduate advisor. Specific dates and times will be posted on the departmental bulletin board and Web page.

Suggested Course Sequence

Freshman Year

First Semester: MATH 1426; IE 1104; IE 1105; CHEM 1465 or CHEM 1441; ENGL 1301; MAE 1350 or CE 1350-Total Credit 16 hours.

Second Semester: MATH 2425; PHYS 1443; Approved Science Elective or CHEM 1442; ENGL 1302; CSE 1311-Total Credit 18 hours.

Sophomore Year

First Semester: MATH 2326; IE 3312; PHYS 1444; HIST 1311; POLS 2311-Total Credit 16 hours.

Second Semester: MATH 3319; IE 3301; IE 3315; HIST 1312; POLS 2312-Total Credit 15 hours.

Junior Year

First Semester: IE 3314; IE 3343; IE 4315; IE 4303; Fine Arts Elective, 3 hours-Total Credit 15 hours.

Second Semester: IE 4302; IE 4322; COMS 3302; IE 4344; English Literature, 3 hours; Technical Elective, 3 hours-Total Credit 18 hours.

Senior Year

First Semester: IE 4308; IE 4325; IE 4343; IE 4339; Technical Elective, 3 hours-Total Credit 15 hours.

Second Semester: IE 4318; IE 4345; IE 4350; Cultural Elective, 3 hours; Technical Elective, 3 hours-Total Credit 15 hours.

Oral Communication and Computer Use Competency Requirements

Students majoring in Industrial Engineering may use COMS 3302, Professional and Technical Communication, to demonstrate oral communication competency. Students majoring in Industrial Engineering are required to take IE 1105 and IE 3343. A computer competency examination will be administered in IE 1105. For transfer students and others who do not take IE 1105, the computer literacy test will be administered in IE 3343.

Program Objectives

Industrial engineers analyze, design, and transform complex systems of people, processes, and technology to accomplish organizational goals. To this end, the educational objectives of the Industrial Engineering program are:

- To produce graduates of high technical competence who enter industrial engineering or other professions and make contributions that benefit society, their employers, and themselves.

- To produce graduates who broadly apply knowledge of: (a) the mathematical, physical and social sciences; (b) economic, operational, and engineering analysis, and (c) the principles and practices of engineering design.
- To produce graduates who analyze, design, and transform the complex systems of people, processes and technology that enable the extended enterprise of the 21st century.
- To produce graduates who continue to expand their capabilities through professional development and advanced education.

From these Program Educational Objectives, the department designed its baccalaureate program to offer its graduates:

- an ability to apply knowledge of mathematics, science, and engineering
- an ability to design and conduct experiments, as well as to analyze and interpret data
- an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- an ability to function on multi-disciplinary teams
- an ability to identify, formulate, and solve engineering problems
- an understanding of professional and ethical responsibility
- an ability to communicate effectively
- the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- a recognition of the need for, and an ability to engage in, life-long learning
- a knowledge of contemporary issues
- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

Requirements for a Minor in Industrial Engineering

To receive a minor in Industrial Engineering, a student must complete the following courses with a grade of C or better in each: IE 3301, IE 3312, IE 3315, plus any three upper division IE courses for which the prerequisites are satisfied.

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 nine 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 UT Arlington, achieving an overall GPA of 3.0 or better in all work done at UT Arlington and in the last 30 hours. Additionally, they must have completed nine 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 nine credit hours of research coursework. This is in addition to the PhD requirements.

Industrial and Manufacturing Systems Engineering Faculty

Chair

Professor Liles

Professors

Chen, Corley, Priest

Associate Professors

Huff, Imrhan, Rogers, Rosenberger

Assistant Professors

Ferreira

Senior Lecturer

Boardman

Professors Emeritus

Meier, Pape, Stevens

The Department of Mechanical and Aerospace Engineering

Mechanical Engineering and Aerospace Engineering · 204 Woolf Hall · Box 19023 · 817-272-2561
www.uta.edu/mae

Overview

The Department of Mechanical and Aerospace Engineering (MAE) offers three programs of study leading to the bachelor's degree. They are the Bachelor of Science in Aerospace Engineering, the Bachelor of Science in Mechanical Engineering, and a double degree of Bachelor of Science in Aerospace Engineering and Bachelor of Science in Mechanical Engineering.

Bachelor of Science in Aerospace Engineering (BSAE)

Rapid advances in aerospace systems require the successful aerospace engineer to develop new concepts and bring them into reality as reliable, competitive, and environmentally acceptable products. Successful completion of a balanced study of basic science and engineering topics, further complemented by humanities, will

ensure that graduates are well prepared to tackle tomorrow's challenges. The curriculum covers the broad areas of aerodynamics and fluid mechanics, propulsion and combustion, flight mechanics and controls, structural mechanics and material behavior, structural dynamics, and system design and optimization supplemented by appropriate laboratory experiences. The culmination of the curriculum is a vehicle design project. Students may broaden their education by choosing elective courses in a secondary field of interest or by taking a second bachelor's degree in mechanical engineering.

Bachelor of Science in Mechanical Engineering (BSME)

The mechanical engineer needs to be extremely versatile and can be found in a large variety of private and public sector organizations. He or she may be involved in product design and development, manufacturing, project management, power generation or other operations. Therefore, the mechanical engineering curriculum is broad-based and emphasizes fundamental engineering sciences and applications. Approximately equal emphasis is given to machine design, structural analysis, thermodynamics and energy, systems and control, and materials science. Classroom lectures are supplemented by laboratories. The student completes a capstone design project as the culmination of the undergraduate program.

Second Degree

The MAE Department offers a dual degree program for students who want to enhance their skills and broaden their future opportunities.

A person who completes all requirements for the BSAE can qualify for a second degree in mechanical engineering by taking appropriate courses. Similarly, a person who completes all requirements for the BSME can qualify for a second degree in aerospace engineering by taking appropriate courses. Alternatively, a student wishing to obtain a double degree can integrate all the courses for the double degree requirement throughout his/her undergraduate career at UT Arlington. The student is encouraged to consult with the Undergraduate Advisor on the appropriate course of study.

Admission

For admission to the aerospace engineering, mechanical engineering, and mechanical and aerospace engineering programs, all students must meet the requirements for admission to the College of Engineering. A grade point average of 2.25 in science, mathematics and engineering courses is required for unconditional transfer into the department.

Advising

During each long semester, the Mechanical and Aerospace Engineering Department conducts a pre-enrollment advising week*, coordinated through the College of Engineering. Returning students (i.e., students who are or have previously been students at The University of Texas at Arlington) shall meet with their assigned advisors during advising week and complete a Registration Advising Form. Returning students who are unable to be present for advising during advising week should contact their advisors at the earliest

opportunity. New students may receive pre-enrollment advising in the department office during late registration or the preceding week.

*See Advising in the College of Engineering section of this catalog.

Goal of the Undergraduate Program

The overall goal of the undergraduate program is to provide the graduate an educational background for lifelong learning and the ability to assume a leadership role in the mechanical or aerospace engineering professions. The programs are broad-based and designed to provide a strong foundation in science, mathematics, and engineering science; technical competence in multiple areas of mechanical or aerospace engineering practice; and an understanding of the importance of ethics, safety, professionalism, and socioeconomic concerns in resolving technical problems.

Educational Objectives and Program Outcomes of the Mechanical and Aerospace Degree Programs

Educational Objectives

An essential purpose of the MAE degree programs is to provide educational programs that will prepare graduates to excel within the broad scope of the engineering profession. Therefore, the MAE programs put forth the following educational objectives.

To instill in the graduate:

- The desire and capability of lifelong learning
- A strong foundation in science, mathematics and engineering science
- The ability to assume a leadership role in the mechanical or aerospace engineering professions
- Technical competence in multiple areas of mechanical or aerospace engineering practice
- An understanding of the importance of ethics, safety, professionalism and socioeconomic concerns in resolving technical problems

Program Outcomes

MAE program outcomes established to accomplish the educational objectives are as follows.

- an ability to apply knowledge of mathematics, science and engineering
- an ability to design and construct experiments, as well as to analyze and interpret data
- an ability to design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability
- an ability to function on multidisciplinary teams
- an ability to identify, formulate and solve engineering problems
- an understanding of professional and ethical responsibility
- an ability to communicate effectively
- an ability to understand through a broad education, the impact of engineering solutions in a global, economic, environmental and societal context

- the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and societal context
- a recognition of the need for, and the ability to engage in, lifelong learning
- a knowledge of contemporary issues
- an ability to use the techniques, skills and modern engineering tools necessary for engineering practice

The MAE program offers broad technical backgrounds for students who may choose other engineering fields for advanced study.

Other Provisions

Refer to the College of Engineering section of this catalog for information concerning the following topics: Preparation in High School for Admission to the College of Engineering, Admission to the College of Engineering, Admission to the Professional Program, Counseling, College of Engineering Academic Regulations, Transfer Policies, College of Engineering Probation, Repeating Course Policy, Academic Honesty and Modern and Classical Languages Requirement.

Requirements for advancement into the Professional Program in Mechanical and Aerospace Engineering are in accordance with those in the College of Engineering with the added stipulation that:

- Application to the Professional Program is to be made to the Undergraduate Advisor during the semester following completion of the last pre-professional course.
- No professional Mechanical and Aerospace Engineering course may be taken unless the student is admitted into the professional program or obtains the consent of the Undergraduate Advisor. Professional courses may be taken to fill out a schedule in the semester that the last pre-professional course is taken.
- Each student must complete all pre-professional courses stipulated under "Requirements for a Bachelor of Science Degree in Aerospace Engineering" or "Requirements for a Bachelor of Science Degree in Mechanical Engineering" with a minimum grade of C in each course and a minimum GPA of 2.25 on a 4.0 scale in each of three categories: (1) overall, (2) required math, science, and engineering courses, and (3) required MAE courses.
- Some professional Mechanical and Aerospace Engineering courses are offered only once a year, in the semester indicated in the semester-by-semester schedule on the following pages. Students are urged to plan their course sequence schedules carefully to avoid delaying their graduation.

Fast Track Program for Master's Degree in Aerospace Engineering or Mechanical Engineering

The Fast Track Program enables outstanding senior undergraduate Mechanical and Aerospace Engineering students to receive dual undergraduate/graduate course credit for up to nine hours of coursework. These designated graduate courses satisfy both bachelor's and master's degree requirements if they are completed within the last 15 hours of the undergraduate degree program. 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 undergraduate students should apply to the appropriate 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 a 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 a specific set of undergraduate foundation courses that are listed below with a minimum GPA of 3.3 in these courses.

- Aerospace Engineering Foundation Courses Required for Admission into the Fast Track Program: MAE 3303, MAE 3315, MAE 3316, MAE 3405, MAE 3306.
- Mechanical Engineering Foundation Courses Required for Admission into the Fast Track Program: MAE 3242, MAE 3314, MAE 3318, MAE 3319

Fast Track students can take two graduate core courses to serve as undergraduate elective courses. Further, students can substitute one of the core graduate courses for one required undergraduate course (AE 5326 in place of MAE 4321 for Aerospace Engineering majors and ME 5303 for MAE 4310 for Mechanical Engineering majors).

Students who successfully complete the Fast Track Program will be automatically admitted to Graduate School. They will not be required to take the Graduate Record Examination, complete an application for admission to the Graduate School or pay an application fee. For more details about the specifics of the program contact the Undergraduate Advisor or Graduate Advisor in Aerospace Engineering or Mechanical Engineering.

Requirements for a Bachelor of Science Degree in Aerospace Engineering

Pre-Professional Courses

(All pre-professional courses must be completed before enrolling in professional courses.)

Mathematics

1426, 2425, 2326, 3330.

Natural Science

CHEM 1465; PHYS 1443, 1444.

Electrical Engineering

2320.

Mechanical and Aerospace Engineering

1104, 1105, 1312, 1350, 2312, 2315, 2323, 2360, 2381, 3309, 3360.

English

1301, 1302.

General Education Courses

English Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing. For AE majors, COMS 3302 must be used to satisfy this requirement.

Fine Arts*

Three hours from architecture, art, music, or theatre arts. For engineering majors, acceptable electives may vary by program.

Social/Cultural Studies

Three hours of designated courses in social or cultural anthropology, archaeology, social/political/cultural geography, economics, sociology, classical studies, or linguistics. For aerospace engineering majors, this University requirement must be met by taking ECON 2305.

History

1311, 1312.

Political Science

2311, 2312.

Professional Courses

Mechanical and Aerospace Engineering

3181, 3182, 3303, 3304, 3405, 3306, 3315, 3316, 3324, 4310, 4321, 4350, 4351.

Technical Electives**

Six hours in approved engineering, science, or mathematics (3000 level or higher).

Total (Pre-Professional Courses)***

64 hours.

Total (General Education Courses)

24 hours.

Total (Professional Courses)

42 hours.

Total (for degree)***

130 hours.

*A list of acceptable electives is available in the departmental office.

**Technical electives must be approved in advance by the student's academic advisor. See also "Technical Elective Selection" below.

***Total hours will depend upon prior preparation and academic qualifications. Also, students who do not have two units of high school foreign language will be required to take six hours of modern and classical languages courses in addition to the previously listed requirements.

Suggested Course Sequence

This course sequence assumes that the student is qualified to start with CHEM 1465, PHYS 1443, MATH 1426.

Freshman Year

Fall Semester: ENGL 1301; MATH 1426; CHEM 1465; PHYS 1443; MAE 1104, MAE 1105-Total Credit 17 hours.

Spring Semester:ENGL 1302; MATH 2425; MAE 1350; PHYS 1444; MAE 1312-Total Credit 17 hours.

Sophomore Year

Fall Semester: MAE 2312; MATH 2326; MATH 3330; MAE 2360; MAE 2323 -Total Credit 15 hours.

Spring Semester: MAE 2381; MAE 2315; EE 2320; MAE 3360; MAE 3309-Total Credit 15 hours.

Junior Year

Fall Semester: MAE 3303; MAE 3304; MAE 3315; MAE 3181; MAE 3324; HIST 1311-Total Credit 16 hours.

Spring Semester: MAE 3306; MAE 3405; MAE 4321; MAE 3182; HIST 1312; POLS 2311-Total Credit 17 hours.

Senior Year

Fall Semester: MAE 4350; MAE 3316; MAE 4310; *Technical Elective, 3 hours; POLS 2312; ECON 2305 -Total Credit 18 hours.

Spring Semester: MAE 4351; *Technical Elective, 3 hours; Fine Arts Elective, 3 hours; COMS 3302; English Literature, 3 hours-Total Credit 15 hours.

*See "Technical Elective Selection" below.

Minor in Aerospace Engineering

To receive a minor in Aerospace Engineering, a student must complete the following three courses with a grade of C or better in each:

MAE 2312 (Solid Mechanics)

MAE 2315 (Fluid Dynamics), or MAE 2314 (Fluid Mechanics)

MAE 2315 (Fluid Dynamics), or MAE 2314 (Fluid Mechanics)

and must complete three courses with a grade of D or better in each, selected from among the following seven:

MAE 3303 (Aerodynamics of Compressible Flow)

MAE 3304 (Astronautics)

MAE 3405 (Flight Dynamics)

MAE 3306 (Flight Performance and Stability)

MAE 3315 (Aerospace Structure Statics)

MAE 3316 (Aerospace Structure Dynamics)

MAE 4321 (Propulsion) as well as all requrired prerequisites for the three chosen coures.

Requirements for a Bachelor of Science Degree in Mechanical Engineering

Pre-Professional Courses

(All pre-professional courses must be completed before enrolling in professional courses)

Mathematics

1426, 2425, 2326, 3330.

Natural Science

CHEM 1465; PHYS 1443, 1444.

Electrical Engineering

2320.

Mechanical and Aerospace Engineering

1104, 1105, 1312, 1350, 2312, 2323, 2360, 2381, 3310, 3324, 3360.

English

1301, 1302.

General Education Courses

English Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing above the freshman level. For ME majors COMS 3302 must be used to satisfy this requirement.

Fine Arts*

Three hours from architecture, art, music, or theatre arts. For engineering majors, acceptable electives vary by program.

Social/Cultural Studies

Three hours of designated courses in social or cultural anthropology, archaeology, social/political/cultural geography, economics, sociology, classical studies, or linguistics. For majors in mechanical engineering this University requirement must be met by taking ECON 2305.

History

1311, 1312.

Political Science

2311, 2312.

Professional Courses

Mechanical and Aerospace Engineering

2314, 3183, 3311, 3314, 3318, 3319, 3242, 3344, 4188, 4287, 4310, 4342, 4344.

Technical Electives**

Nine hours in engineering, science or mathematics (3000 level or higher).

Pre-Professional Total***

64 hours.

General Education Total

24 hours (six of which are included in pre-engineering).

Professional Total

42 hours.

Total (for degree)***

130 hours.

*A list of acceptable electives is available in the departmental office.

**Technical electives must be approved in advance by the student's academic advisor. See also Technical Elective Selection" below.

***Total hours will depend upon prior preparation and academic qualifications. Also, students who do not have two units of high school foreign language will be required to take six hours of modern and classical languages courses in addition to the previously listed requirements.

Suggested Course Sequence (Pre-Professional Program)

This course sequence assumes that the student is qualified to start with CHEM 1465, PHYS 1443, MATH 1426.

Freshman Year

First Semester: MAE 1104; MAE 1105; CHEM 1465; ENGL 1301; MATH 1426; PHYS 1443-Total Credit 17 hours.

Second Semester: MAE 1312; MAE 1350; ENGL 1302; MATH 2425; PHYS 1444-Total Credit 17 hours.

Sophomore Year

First Semester: MATH 3330; MAE 2360; MAE 2323; MAE 2312; MATH 2326-Total Credit 15 hours.

Second Semester: MAE 2381; MAE 3310; MAE 3324; MAE 3360; EE 2320-Total Credit 15 hours.

Suggested Course Sequence (Professional Program)

Junior Year

First Semester: MAE 2314; MAE 3311; MAE 3318; MAE 3242; HIST 1311; COMS 3302-Total Credit 17 hours.

Second Semester: MAE 3314; MAE 3319; MAE 3344; POLS 2311; HIST 1312; ECON 2305 -Total Credit 18 hours.

Senior Year

First Semester: MAE 4287; MAE 4342; MAE 4344; MAE 3183; *Technical Elective, 3 hours; POLS 2312 -Total Credit 15 hours.

Second Semester: MAE 4188; MAE 4310; *Technical Electives, 6 hours; English Literature, 3 hours; Fine Arts Elective, 3 hours -Total Credit 16 hours.

*See Technical Elective Selection below.

Minor in Mechanical Engineering

A minor in Mechanical Engineering requires at least 18 semester credit hours in Mechanical Engineering courses. To receive a minor in Mechanical Engineering, a student must complete MAE 2312 (Solid Mechanics), 2323 (Dynamics), MAE 3310 (Thermodynamics I), and minimum 9 additional semester credit hours from: MAE 2314, 3183, 3242, 3311, 3314, 3318, 3319, 3324, 3344, 3360, 4310, 4342, 4344.

Technical Elective Selection

Technical electives must be approved in advance by the student's academic advisor. Normally, they are selected from among the senior elective 4000 level courses in Mechanical and Aerospace engineering.

Oral Communication and Computer Use Competency Requirements

Mechanical and Aerospace Engineering students will satisfy the Oral Competency requirement by completing COMS 3302, Professional and Technical Communications. They will satisfy the Computer Use Competency requirement by completing MAE 2360.

Mechanical and Aerospace Engineering Faculty

Chair

Professor Armanios

Professors

Agonafer, Armanios, Aswath, Chan, Haji-Sheikh, Hullender, Lawrence, Lu, Nomura, Wang, Wilson, Woods, You

Associate Professors

Dogan, Luo, Shiakolas, Subbarao, Tong

Assistant Professors

Bowling, Chudoba, Dennis, Huang, Kim, Liu, Massa, Moon

Senior Lecturers

Z. Han, Harris, Kumar, Michael, Wimberly

Professors Emeritus

Anderson, Dalley, Fairchild, Lawley, Mills, Payne, Woolf

Summer course offerings may vary year to year.

The Department of Materials Science and Engineering

325 Woolf Hall · Box 19031 · 817-272-2398
www.uta.edu/mse

Overview

The interdisciplinary field of materials science and engineering has become critical to many emerging areas of science and advanced technology. As a result, there is a growing demand for engineers and scientists with education and training in materials science and engineering. The Materials Science and Engineering Department provides students with such education and training through its graduate master's and doctoral degree programs. Additionally, the department offers undergraduate courses for use as electives in science and engineering, in Fast Track Programs in Materials Science and Engineering, and in minor programs in this discipline.

Minor Program in Materials Science and Engineering

Outcomes and Goals

The goal of the minor program in Materials Science and Engineering is to give students a foundation in the governing principles of materials science which complements their major field of study, as well as an understanding of the latest trends. As such, the program is flexible in coursework requirements and can be tailored to each student's interest.

Admission to the Minor Program in Materials Science and Engineering

Admission to the minor program in Materials Science and Engineering requires GPA of 2.0 or higher and approval by the Materials Science and Engineering Department undergraduate advisor as well as the student's home department. Information on admissions and course requirements can be obtained from the Materials Science and Engineering undergraduate program advisor. The minor will be conferred at the same time the degree is conferred and the degree and minor will be recorded on the student's transcript. The minor will not be on the diploma. Minors may not be conferred retroactively upon students who have graduated.

Scholarships and Research Experience

Scholarships may be available for students who meet the academic requirements set by the Materials Science and Engineering minor program. Minor program students may also work as undergraduate research assistants for Materials Science and Engineering faculty.

Requirements for a Minor in Materials Science and Engineering

To receive a minor in Materials Science and Engineering, a student must complete 18 hours of the following courses with a grade of C or better in each course. Courses must be approved in advance by the MSE undergraduate program advisor. A student must complete:

MSE 3300 Introduction to Materials Science and Engineering (MAE 2321 for MAE majors)
MSE 3324 Structure and Mechanical Behavior of Materials (MAE 3324 for MAE Majors)
MSE 4320 Nanoscale Materials,
and three of the following courses for which the prerequisites are satisfied
MSE 4310 Polymer Material Science
MSE 4315 Introduction to Composites (MAE 4315 for MAE majors)
MSE 4336 Advanced Mechanical Behavior of Materials (MAE 4336 for MAE majors)
MSE 4337 Fatigue of Engineering Materials (MAE 4390 for MAE majors)
MSE 4338 Failure Analysis (MAE 4338 for MAE majors)
MSE 4339 Fracture Mechanics (MAE 4339 for MAE majors)
MSE 4390 Special Topics in Materials Science (e.g., electrical, optical and magnetic properties of materials)
CHEM 3307 Introduction to Polymer Chemistry
CHEM 3315 Introduction to Biophysical Chemistry
CHEM 3321 Physical Chemistry
CHEM 4303 Quantum Chemistry
CHEM 4318 Inorganic Chemistry
CHEM 4346 Advanced Synthetic Methods
MAE 3344 Introduction to Manufacturing Engineering
PHYS 3313 Introduction to Modern Physics
PHYS 3455 Electronics

PHYS 4324 Advanced Electricity and Magnetism
PHYS 4325 Solid State Physics
PHYS 4326 Introduction to Quantum Mechanics

Department of Materials Science and Engineering Faculty

Professors

Aswath, Chan, Elsenbaumer, Goolsby, Kim, Meletis

Associate Professor

Koh

Assistant Professors

Hao, Jin

Professor Emeritus

Wiseman

The Honors College

Dean: Karl Petruso, Ph.D.
108 College Hall · Box 19222 · 817-272-7215
www.uta.edu/honors · honors@uta.edu

Honors Vision Statement

The Honors College is committed to extending opportunities for achievement in undergraduate education to the best students across the University. The College works toward this goal by promoting a supportive and academically and culturally diverse environment in which students can pursue excellence in research, creative work, community service, and personal and professional development. By creating a center for academic excellence, the Honors College not only fosters the development of the next generation of academic and community leaders, but also advances the University's broader mission of improving the level of education for all students.

Honors Affiliations

The UT Arlington Honors College, one of only seven in Texas, is a member of the National Collegiate Honors Council and the regional Great Plains Honors Council.

Standards for Admission

The Honors College is dedicated to creating a student body with broad interests, varied talents, and diverse cultural backgrounds. Admission is competitive. **Entering first-year Honors applicants** (those with fewer than 30 college hours) must have either a score of 1200 on the SAT (combined Critical Reading and Math) or a score of 27 on the ACT, or have graduated in the top ten percent of their high school class. **Continuing UT Arlington and transfer Honors applicants** (those with more than 30 college hours) must have an overall undergraduate GPA of 3.35. All applicants are required also to submit a résumé and statement of purpose, both of which are reviewed in conjunction with quantitative metrics for admissions decisions. For additional information and applications materials, see the Honors College website: https://www.uta.edu/honors/secure/applications/.

Requirements for Completing an Honors Degree

Honors degrees are granted in the disciplines of the University's eight undergraduate schools and colleges--Architecture, Business, Education, Engineering, Liberal Arts, Nursing, Science, and Social Work--as well as Interdisciplinary Studies. To graduate with an Honors degree, a student must be a member of the Honors College in good standing, have an overall GPA of 3.2 or higher, and complete the degree requirements in a disciplinary major.

The Honors degree requires 24 hours, and the curriculum has two complementary components: coursework and the Senior Project. Depending on their program, all students take either 18 or 21 hours of Honors-designated or contract courses, which are intended to augment the undergraduate classroom experience even while fulfilling requirements in general education or an academic major. Then, working in conjunction with a departmental mentor drawn from the full-time faculty and an Honors College advisor, each student proposes and completes a Senior Project. The Senior Project is intended to encourage learning beyond the traditional undergraduate classroom--intellectually, professionally, and/or geographically--and the range of projects is designed to make the Honors curriculum flexible enough to be adapted to each student's academic, career, and personal goals. Although a culminating requirement for the Honors degree, the Senior Project is intended to be less a final experience than a point of departure in a student's lifelong journey toward intellectual accomplishment, citizenship, and personal fulfillment.

Honors Coursework

honors.uta.edu/courses/

Honors courses satisfy Honors, departmental, college, and University requirements. The Honors College provides departmental advisors with equivalency/substitution information. The University's oral competency requirement is fulfilled by presenting the Senior Project at a faculty-reviewed symposium.

Honors students may earn Honors credit for non-Honors courses taught by full-time faculty, subject to the terms of the Honors Course Contract. To receive Honors credit, the student must complete regular course requirements with a grade of A or B, as well as an independent Honors assignment as agreed upon by the instructor and the student.

Senior Project Options

Each major has up to five options for an Honors Senior Project:

- Six hours of graduate coursework, with a grade of B or better
- Thesis or creative project
- Semester of study abroad
- Service learning
- Internship

The Honors College works closely with undergraduate programs across campus to determine which senior projects are best for their majors, and not all options will be permitted by all academic units. Students interested in Honors are therefore encouraged to contact an Honors advisor about rules for the Senior Project in their particular field of study.

All five options require an approved proposal, a substantial written product, and an oral presentation. Students who opt to use six hours of graduate coursework for the Senior Project need only 18 hours of Honors-designated or contract coursework

to meet the coursework requirement; students who pursue one of the other options for the Senior Project need 21 hours of Honors-designated or contract coursework to meet the coursework requirement.

The flexibility of the Honors requirements makes it essential that students maintain close contact with both their departmental mentor and the Honors advising staff. Students must meet with an Honors advisor during their first semester in the College and again after 60 hours to complete a degree plan, and they are strongly encouraged to continue meeting with the advising staff on a regular basis, preferably once per semester.

Probation Policy

honors.uta.edu/advising/

Honors students whose cumulative GPA falls below 3.2 will be placed on probation. They must meet as soon as possible with an Honors advisor and are required to raise their GPA back to 3.2 or higher in the following semester.

Privileges for Honors Students

The Honors College provides a wealth of tangible and intangible benefits to its students:

- Honors Degree designation on diploma and transcript
- Special recognition at graduation
- Priority in course registration
- Small class size
- Courses taught by award-winning faculty
- Honors scholarship opportunities
- Honors study abroad programs and scholarships
- Paid undergraduate research assistantship opportunities
- Honors internships
- Community service learning opportunities
- Special privileges with the University libraries
- Honors listserv and newsletter
- Special Honors academic and social events
- Fast-track admission to UT Arlington graduate programs
- Honors Bridge to Graduate School Fellowship opportunities
- Membership in the Honors College Council
- Use of the Carolyn A. Barros Reading Room (library and computer laboratory)
- Graduate and professional school advising

Honors College Programs and Services

Honors Study Abroad Program

honors.uta.edu/abroad

The Honors College Study Abroad Program offers short-term opportunities for students to acquire new knowledge and understanding of the people, events, movements, ideas, and products of cultures other than their own; to link historical events and developments with those of the twenty-first century; and to understand the contributions of other peoples and regions to American institutions and culture. Rigorous instruction and intensive on-site learning in countries as diverse as Ireland, Scotland, Italy, Ghana, the Czech Republic, Greece, England, and Costa Rica are hallmarks of the Honors study abroad

experience. Scholarships are available from both the Honors College and the Office of International Studies (www.uta.edu/oie/studyabroad/). (Note: the Honors College Study Abroad Program typically involves short-term travel and as such cannot be used for the study abroad option for the Senior Project, although credits from the program may be used to meet the coursework requirement for the Honors degree.)

The AP* Summer Institute (APSI)

honors.uta.edu/apsi/

The Honors College at UT Arlington, in conjunction with the College Board, annually presents the AP Summer Institute. Each year more than 600 new and experienced middle and high school teachers receive invaluable training from College Board-certified AP and Pre-AP instructors to prepare them to teach AP courses. Courses are offered in Art, English, Science, Language, Mathematics, and Social Studies.

*College Board, AP, and the Advanced Placement Program are registered trademarks of the College Entrance Examination Board, and are used here with permission.

Honors Academy

honors.uta.edu/academy/

The UT Arlington Honors College provides a program of study for motivated high school students who enroll in university courses to earn college or dual credit. Honors Academy students can earn up to eight hours of course credit per semester towards a college degree while also meeting high school graduation requirements. UT Arlington offers qualified high school students an outstanding learning experience that will provide the foundation for a successful transition from high school to university-level work.

Requirements

Each participant must be a high school junior or senior and meet the following requirements:

Class Rank	PSAT/SAT Score
Top Quarter	No Minimum
Second Quarter or Below	105 PSAT or 1050 SAT*

*PSAT or SAT scores are calculated by combining the Critical Reading and Math scores.

All students must satisfy Texas Success Initiative (TSI) requirements by:

- Passing THEA or an equivalent exam, or
- Meeting TSI minimum scores for the SAT, ACT, or TAKS

Admission

Students must submit the following forms for admission:

- Application for admission and a $35 application fee
- Official high school transcript indicating junior or senior standing
- Official SAT-I, PSAT, or ACT scores
- Completed Early Admissions Program agreement signed by the high school principal, the student, and the student's parent or legal guardian

Honors Academy Scholarships

To earn an Honors Academy Scholarship, a student must be admitted to UT Arlington as a dual credit/early admissions student *and* have scored at least 120* on the PSAT or 1200* on the SAT, *or* be in the top ten percent of his or her high school class.

*PSAT or SAT scores are calculated by combining the Critical Reading and Math scores.

Academy students who complete at least six hours at UT Arlington with a GPA of 3.0 or above are awarded a $1500 scholarship to be used when they enroll as full-time UT Arlington students. The Honors Academy Scholarship is renewable for up to four years, as long as the student maintains a GPA of 3.0 or higher.

Honors Scholarships and Assistantships

honors.uta.edu/scholarships

The Honors College, in conjunction with the UT Arlington Scholarship Office, annually awards numerous Honors Scholarships, many of them renewable for up to three additional years for students who remain in good standing in the College. Applications are available in the Honors College Office and on the Honors College website. Information on departmental and organizational scholarships and financial aid is available in the Scholarship and Financial Aid Office, 252 Davis Hall.

Honors Distinction Scholarships

honors.uta.edu/scholarships

The Honors Distinction Scholarship is the most generous award offered to undergraduate students at UT Arlington, providing $20,000 per year for up to four consecutive years for education-related expenses. It is merit-based and highly competitive. To be eligible, applicants must have a minimum score of 1300 on the SAT (combined Critical Reading and Math) or ACT composite score of 30, and acceptance to UT Arlington and the UT Arlington Honors College. Students who receive the award, which may not be stacked with any other UT Arlington scholarship, must satisfy the following requirements in order to maintain support: achieve an overall GPA of 3.35 (on a 4.0 scale) by the end of their first year and an overall 3.5 GPA thereafter through gradutation; complete at least 30 credit hours per year; reside in UT Arlington housing for at least their first and second years; and make satisfactory progress each year toward the 24 credit hours of coursework stipulated for the Honors degree.

Honors Bridge to Graduate School Fellowships

honors.uta.edu/scholarships

The Honors College offers competitive scholarships for Honors College graduates or degree candidates seeking enrollment in UT Arlington's graduate programs. In addition, Honors students may be eligible for advanced admission and, depending on the graduate program, exemption from the GRE. Honors seniors are encouraged to consult the graduate advisors of their prospective departments and the Honors College for further information. (Note: this

fellowship is not available to students enrolled in five-year or six-year combined programs.)

Honors Undergraduate Research Assistantships

honors.uta.edu/scholarships

The Honors Undergraduate Assistantship Program, in concert with UT Arlington's other schools and colleges, places students in paid research assistantships in their disciplines. Honors Research Assistantships are awarded on a competitive basis, and successful applicants must enroll in three credit hours of research or independent study while holding the assistantship. Information and applications are available in the Honors College Office.

The College of Liberal Arts

Dean: Beth Wright, Ph.D.
210 University Hall · Box 19617 ·
817-272-3291
www.uta.edu/libarts

Overview

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.

The traditional objectives of liberal arts in the University are: (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 milieux of the attitudes and the ideas that shape institutions and strategies in societies.

A liberal arts education prepares the student for leadership in whatever profession or vocation he or she chooses and is designed to help students live enlightened, purposeful, and effective lives in a challenging, complex, and global technological environment.

A center of learning and scholarship, the College of Liberal Arts and its departments and programs help students achieve an understanding and knowledge of the past, a comprehension of the realities of the present, and a sense of the vision and potential of the future. Our courses of study not only develop habits of mind (such as mastery in reading, communication, and critical thinking skills), but also address the meaning of human experience and expression.

The college promotes these goals in the following ways:

- By enabling students 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;
- By enabling students to prepare for professions or careers by offering specialized major programs; and
- By enabling students to understand and evaluate critically the attitudes and ideas that shape contemporary society.

Because they deal with the meanings of human experience, the Liberal Arts are the oldest and most central study in higher education, with a past that reaches back to the origins of the university in the Middle Ages. The disciplinary units of the college provide current perspectives on the individual, society, culture, and the cosmos; the various courses of study taken together offer students a range of approaches to the human condition. Through their research and teaching, the faculty of the college seek to prepare students to achieve success in many different professions, to contribute to the community, and to lead enriched and enlightened lives.

Departments and Programs

The College of Liberal Arts offers programs of study in 12 academic units.

Art and Art History	Modern Languages
Communication	Music
Criminology and Criminal Justice	Philosophy and Humanities
English	Political Science
History	Sociology and Anthropology
Linguistics and TESOL	Theatre Arts

The college also offers interdisciplinary programs of undergraduate study in the Centers for Post-Soviet and East European Studies, Mexican American Studies, Southwestern Studies, and Women's Studies. Military Science offers a program that leads to a commission in the U.S. Army.

Interdisciplinary Minors

Medieval and Early Modern Studies Minor

The medieval and early modern world saw major social and cultural changes - the rise of the middle class, the development of the individual, the emergence of the nation state, and the consolidation of many modern languages. The Medieval and Early Modern Studies minor fosters insterdisciplinary study of these periods, encouraging students to explore and connect topics in language, literature, history, art, and philosophy. The minor in Medieval and Early Modern Studies comprises courses taught by members of various departments in the College of Liberal Arts.

Students seeking to minor in Medieval and Early Modern Studies should first consult with advisors in their departments or programs for approval of the minor, then

with the Director of the Minor in Medieval and Early Modern Studies (currently Dr. Sarah Davis-Secord of the Department of History). A minor in Medieval and Early Modern Studies consists of six courses (18 hours total) selected from the courses listed below, with no more than nine hours to be completed within any single discipline. In addition, other relevant topics courses not listed below may be used to fulfill the minor, with the approval of the Director. Students should consult the catalog and/or the appropriate department for prerequisites.

ART 3306 Byzantine and Medieval Art

ART 3307 The Early Renaissance

ART 3308 High Renaissance

ART 4306 Mid-Reneaissance

ART 4396 Special Sudies in Art History (if topic relevant)

ENGL 2303 Topics in Literature (if topic relevant)

ENGL 3351 History of British Literature I

ENGL 4301 History of the English Language

ENGL 4321 Medieval British Literature

ENGL 4323 Seventeenth-Century British Literature

ENGL 4325 Chaucer

ENGL 4326 Shakespeare

ENGL 4334 Special Topics in British Literature (if topic relevant)

ENGL 4386 Dante

FREN 3311 French Literature and Culture I

FREN 4332 Studies in Medieval and Renaissance Culture

GERM 3318 Special Topics in German Studies (if topic relevant)

GERM 4321 Topics in Literature and Culture (if topic relevant)

HIST 2313 History of England

HIST 3376 Medieval Europe I

HIST 3377 Medieval Europe II

HIST 3378 Europe: The Renaissance

HIST 3379 Europe: The Reformation and Counter-Reformation

HIST 4330 Medieval Crusade and Jihad

HIST 4331 Medieval Travelers

HIST 4388 Selected Topics in History (if topic relevant)

PHIL 3302 History of Philosophy: Roman and Medieval Philosophy

PHIL 3303 History of Philosophy: Renaissance and Early Modern European Philosophy

SPAN 3302 Hispanic Literature in Translation (if topic relevant)

SPAN 4310 Topics in Peninsular Spanish Literature and Culture to the Eighteenth Century (if relevant)

SPAN 4313 Topics in Hispanic Culture (if relevant)

SPAN 4330 Topics in Spanish Linguistics (if relevant)

For information on the Medieval and Early Modern Studies minor, contact the Director at sdavis-secord@uta.edu

Liberal Arts Advising

Individual degree programs in the College of Liberal Arts have undergraduate advisors who are available to help students with academic planning, course selection, and professional career advice. There is also a College of Liberal Arts advising office, in which an advisor is available to help students with more general questions and queries regarding their degree plans and career goals. This office is located in 210 University Hall.

Admission to the College of Liberal Arts

Admission is determined by application to the academic unit offering the degree of interest. Individual departments and programs in the College of Liberal Arts may set more specific and restrictive requirements than those stipulated in the Core Curriculum statement (See Degree Program), and may set additional requirements for admission to the major. Information may be obtained in department and program offices.

The College of Liberal Arts has a modern and classical languages requirement. Students must demonstrate proficiency at the second year college level of a foreign or classical language. This requirement for the B.A. degree at UT Arlington is designed to help students become effective members of the global community. It is not only essential for a broad education, but also provides a basis for practical benefits to students with widely varying and highly specific objectives. Proficiency may be demonstrated through the prescribed score on the CLEP test for the language, transfer of credits from another institution, completion of the second year at UT Arlington, or proof of a secondary education in a foreign language (as evidenced by a diploma from a high school in which the language is the primary language of instruction). Students who choose to fulfill the requirement through proof of secondary education in another language must complete an additional six hours of English courses in order to ensure their mastery of English.

Computer Use and Oral Communication Competencies

Students majoring in Liberal Art disciplines are also required to demonstrate computer use proficiency and oral communication competency. Methods for demonstrating these competencies vary across departments and programs within the College of Liberal Arts and are detailed in the sections of this catalog pertaining to the various majors.

Transfer Credits

Students entering the College of Liberal Arts may transfer up to 72 hours of academic credit from two-year institutions to be applied to a degree.

Teacher Certification

The College of Education, in cooperation with the College of Liberal Arts, offers programs leading to elementary, secondary and all-level certification. Students interested in teacher certification should consult the advisor or his/her major

department or the Advising Center of the College of Education for more information.

Honors Degree in Liberal Arts

In addition to earning a disciplinary degree with Latin honors (summa, magna, cum laude), Liberal Arts students who wish to graduate with an Honors Degree in a Liberal Arts discipline must be members of the Honors College in good standing, have an overall GPA of 3.2, and complete the degree requirements in a disciplinary major. The Honors course requirements include:

At least twenty-four (24) hours of Honors course work, overall (all of which may also fulfill university core or disciplinary major requirements):

- Three hours in an approved research methods course
- Three hours in an approved thesis/project course
- Remaining Honors hours (to complete 24) to be chosen from special Honors sections of University core requirements, other Honors Interdisciplinary Seminars/Special Topics courses, Honors Independent Study, Honors electives, Honors Credit Contract courses, and Honors courses in the major. Students wishing to pursue an Honors degree must meet with an Honors College advisor as early as possible.

Study Abroad

The College of Liberal Arts offers many opportunities for students wishing to study abroad. Programs in Mexico, Spain, France, Italy, Germany and other locations are led by faculty from different departments. Semester-long programs with affiliated institutions are also available.

Scholarships

Scholarships for outstanding undergraduate students are available from the College of Liberal Arts. Students may receive more information by contacting their academic advisor.

Double Majors

Students in the College of Liberal Arts may obtain a double major by completing all requirements for a degree in any one of Liberal Arts' disciplines plus the major area requirements in any other discipline in the College of Liberal Arts. Requirements in the second major will fulfill the minor requirement. The diploma and transcript will reflect both majors.

Pass-Fail

Any student majoring in the College of Liberal Arts may, with the permission of an advisor from his/her major department and of the department or academic unit offering the course, take any course approved with a pass/fail grading option on a pass-fail basis, provided that the course is not required for the student's degree and provided the student has sophomore standing (30 hours credit). Students seeking teacher certification may not take education courses on a pass-fail basis with the exception of student teaching which is offered only on a pass-fail basis. Junior-senior level military science courses also may not be taken on a pass-fail basis.

The Department of Sociology and Anthropology

430 University Hall · Box 19599 · 817-272-2661
www.uta.edu/sociology-anthropology

Overview

The principal common educational objective in the Department of Sociology and Anthropology is to develop a systematic understanding of social behavior, human culture, and social institutions. Knowledge of human social and cultural relationships is vital to a meaningful perspective on and understanding of the society in which we live. Contemporary societies are characterized by diversity, rapid change, complex organization, and extensive specialization. Programs of study in the Department of Sociology and Anthropology pursue the challenge of (1) creating and disseminating general knowledge that will render this world more understandable and (2) providing an educational base for more effective and humane planning and social intervention in society. Each of the programs of study relates to this general objective in a somewhat different manner. Students are encouraged to visit with the faculty and learn more about the programs offered in the department.

Sociology

A program of study in sociology has three principal objectives: (1) to foster the ability to analyze human relationships from a sociological perspective, (2) to develop the theoretical, methodological, and statistical skills necessary for asking and answering sociological questions, and (3) to enhance individuals' awareness of the relationship between events in their own lives and the structure of the society in which they live. The program is designed to prepare students both to pursue graduate work in sociology and to seek a career in a variety of private and public settings where knowledge of human relationships and/or social research skills is particularly useful. Students seeking certification to teach in the public schools can use sociology as a teaching area.

Anthropology

A program of study in anthropology has the objective of grounding students in three main subfields of anthropology: cultural anthropology (the comparative analysis of human lifeways around the world), archaeology (the systematic analysis of the material remains of past cultures), and physical anthropology (the study of humans as a biological species). The program prepares students both for graduate work in anthropology and for many careers in which anthropological perspectives and training are useful.

Requirements for a Bachelor of Arts Degree in Sociology

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing.

Modern and Classical Languages

1441, 1442, and six hours at the 2000 level or above.

Political Science

2311 and 2312.

History

1311 and 1312.

Mathematics

Six hours (level of college algebra or higher).

Science

Eight hours in a single lab science (biology, chemistry, geology or physics).

Fine Arts

Three hours from designated courses in architecture, art, dance, music or theatre arts. Students should contact their academic advisor for a list of approved courses.

Social/Cultural Studies

Three hours from designated courses which have been approved by the Undergraduate Assembly. For a list of approved courses, students should contact their academic advisor.

Electives

Sufficient to give the total number of hours required for the degree.

Major

37 hours including 1311, 3352, 3372 and 3462; and one course (three hours) in anthropology.

Total

120 hours, at least 36 of which must be 3000/4000 level.

Optional Minor

Students majoring in sociology may pursue a minor in another field of study by meeting with the minor department's undergraduate advisor and fulfilling the requirements established by that department.

Optional Specializations in Sociology

Students majoring in sociology may pursue a general course of study in the discipline or declare a specific area of concentration by filing a statement of intent with the Sociology Department. The purpose of specialization is to provide the student with a focused, systematic, and in-depth educational experience in the context of a broad liberal arts education. Each area requires a minimum of 12 semester hours. Additional requirements may apply. See advisor for details.

The areas of specialization are:

- Deviance and Social Control: 3312, 3313, 3315, 3317, 3320, 3321, 3357, 4315.
- Family and Gender Studies: 3328, 3331, 3334, 3356, 4303, ANTH 3338.
- Research and Evaluation: 3352, 3355, 3462, 4306.
- Social Psychology: 3315, 3317, 3318, 3319, 3320, 3321, 3323, 4332, ANTH 3331.
- Social Diversity: 3336, 3340, 3346, 3350, 3351, 3353, 4310, 4318.

Requirement for a Minor in Sociology

A minor in sociology requires 18 semester hours, at least six of which must be 3000/4000 level.

Fast Track Program in Sociology

The Fast Track Program allows outstanding seniors in sociology to take up to three graduate seminars for credit toward both the Bachelor's degree and the Master's degree in Sociology. 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 UT Arlington 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 already have taken at least two elective 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. They will not be required to take the Graduate Recored Examination, complete an 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. 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 passing, will still receive credit toward their undergraduate degree requirements.

For more details about the program contact the Undergraduate Advisor for the Department of Sociology and Anthropology or the Sociology Graduate Advisor and consult the on-line Graduate Catalog.

Requirements for a Bachelor of Arts Degree in Anthropology

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing.

Modern and Classical Languages

1441, 1442, and six hours at the 2000 level or above.

Political Science

2311, 2312.

History

1311, 1312.

Mathematics

Six hours (level of college algebra or higher).

Science

Eight hours in a single lab science (biology, chemistry, geology or physics).

Linguistics

LING 2301.

Fine Arts

Three hours from designated courses in architecture, art, dance, music or theatre arts. Students should contact their academic advisor for a list of approved courses.

Social/Cultural Studies

Three hours from designated courses which have been approved by the Undergraduate Assembly. For a list of approved courses, students should contact their academic advisor.

Electives

Sufficient to give the total number of hours required for the degree.

Major

38 hours, including ANTH 2307, ANTH 2322, ANTH 2339, ANTH 3300, SOCI 3352 and a minimum of one 3000/4000 level course in each of archaeology, biological, and cultural anthropology as approved by the advisor. It is recommended that (1) students with a primary interest in cultural anthropology take courses in at least two topical areas and covering at least two geographic regions, (2) students with a primary interest in archaeology take at least one Old World and one New World course, with a minimum of one upper division course in either, and an archaeological field school, and (3) students with a primary interest in biological anthropology take 12 hours of upper division biological anthropology.

Minor (Optional)

Students majoring in Anthropology may pursue a minor in another field of study by meeting with the minor department's undergraduate advisor and fulfilling the requirements estabished by that department.

Total

120 hours, at least 36 of which must be 3000/4000 level.

Requirements for a Minor in Anthropology

The Anthropology minor (6 courses/18 hours total) can be fulfilled by successfully completing two of the following three courses:

- ANTH 2307: Biological Anthropology
- ANTH 2322: Global Cultures

- ANTH 2339: Principles of Archaeology

Plus any other four ANTH courses, at least two of which must be at the advanced level (3000 or above). Questions about the Anthropology minor may be directed to the coordinator for undergraduate advising in Anthropology, Prof. Karl Petruso.

Oral Communication and Computer Competencies

Students majoring in sociology or anthropology are required to demonstrate computer use and oral communication competencies. Computer use proficiency can be demonstrated through successful completion of (a) CSE 1301 or INSY 2303; (b) ANTH 3341 or SOCI 3355; (c) other courses approved by the Undergraduate Assembly; or (d) the University computer use competency examination. Oral communication proficiency can be demonstrated through the successful completion of (a) COMS 1301, 2305, or 3302; (b) ANTH 3341 or SOCI 3355, or other designated, approved courses in Anthropology and Sociology; or (c) other courses approved by the Undergraduate Assembly. Students should discuss these options with their undergraduate advisor, who may also provide a list of other courses approved by the University to meet these requirements.

Sociology and Anthropology Faculty

Chair

Professor Smith

Professors

Agger, Bastien, Eve, Petruso, B. Shelton, Young

Associate Professors

Baker, Dunn, Kunovich, Rouse, Zlolniski

Assistant Professors

Beamon, Cleghorn, Han, Jacobson, Khanduri, J. Shelton

The Department of Art and Art History

335 Fine Arts Bldg. · Box 19089 · 817-272-2891
www.uta.edu/art

Overview

The mission of the Department of Art and Art History in the College of Liberal Arts at The University of Texas at Arlington is to provide and encourage education in visual arts and art history. The curriculum provides students with an extensive education through an understanding of professional, theoretical, visual and analytical processes. To assist students in comprehending the fundamental nature of the visual arts, its boundaries, methods and technologies, the department offers a comprehensive range of media and methodologies. Students will be able to create work in a number of unique and exciting media and articulate an understanding of their work in the context of art, its history, society and culture. The Department of Art and Art History offers degrees in the following:

- Bachelor of Fine Arts (B.F.A.) in Art

- Bachelor of Fine Arts (B.F.A.) in Art (with teacher certification)
- Bachelor of Arts (B.A.) in Art
- Bachelor of Arts (B.A.) in Art History

Students are constantly challenged to think in experimental and creative as well as disciplined and established ways as they take their places in a changing and increasingly complex world. They may choose among such varied options as: teaching, visual communication (graphic design), studio art, photography, curatorial studies, art historical research, film production, or a variety of Web-based or online content creation.

The Gallery at UT Arlington is an exceptionally valuable resource for students in the department. It presents a full program of major exhibitions in its 4,900-square-foot gallery, including lectures, symposia, screenings and publications.

Situated in the center of two major metropolitan cities, each supporting a nationally significant cultural community, the Department of Art and Art History extends and enhances its programs through co-sponsorship of projects with area museums, off-campus courses and student internships. This unique blend of resources and programs gives graduates of the department a distinctive point of view and better prepares them to make the transition into a challenging professional world.

Facilities

The Department of Art & Art History studios and classrooms are located in two facilities:

The Fine Arts Building at 502 S. Cooper Street houses Art History, Film/Video, Photography, Visual Communication, Animation, Drawing, 2-D Design as well as the Digital Design foundation classes. Also included are Departmental Offices, The Gallery at UT Arlington and the Visual Resources Commons.

The Studio Arts Center at 810 S. Davis Street houses the following studios: Clay, 3-D Design, Glass, Metals, Painting, Printmaking, Neon and Sculpture. It is also the site of Gallery West, a student-run exhibition space.

Degree Programs

Bachelor of Fine Arts in Art

The B.F.A. degree program offers intensive pre-professional preparation in the field of studio art. This program is designed for those aspiring to work in their field of interest as professionals or to enter graduate school upon completion of the degree. In addition to fulfilling University and the College of Liberal Arts requirements, students planning to graduate with a B.F.A. in Art degree must:

- Maintain a 3.0 GPA within the major.
- Complete 27 credit hours of Art Foundation courses: ART 1305, ART 1306, ART 1307, and ART 2304; 6 hours of ART 1309, ART 1310, or ART 1317; one 3-credit course in each of the following areas: 2-D studio, 3-D studio and media studio.
- Complete 6 credit hours of advanced Art History courses.
- Complete 39 credit hours of advanced studio, that includes ART 4100 (B.F.A. Senior Exhibition) and ART 4200 (Professional Practices)--or ART 4356 for Visual Communications majors--to complete the Art Concentration requirements.

Student Concentration Portfolio Review

The student concentration portfolio review is a method of assessing art student's progress and their preparedness to enter advanced classes in the B.F.A. program. The review will be able to recommend either acceptance into the B.F.A./B.A. programs (a pre-professional program) or placement into the B.A. degree (a more general program).

Transfer and new students would be allowed to register for the B.F.A. as "Art intended." Those students designated as "Art" would be scheduled by the Art Advising Office into a set calendar of entrance reviews, by panels of appropriate faculty members.

As 21 and 36 studio class hours are achieved, each potential B.F.A./B.A. student will be reviewed by appropriate faculty (not by a standing committee). At 21 hours, the review would have the purpose of "entrance" into the B.F.A./B.A. programs.

For more information concerning the student concentration portfolio review, contact the Art and Art History advisor.

Bachelor of Arts in Art

The B.A. program in Art is of a more general nature, and is more suited to those whose current academic interests and/or prior work are directed toward a broad overview of art and its relationship to other disciplines. In addition to fulfilling University and the College of Liberal Arts requirements, students planning to graduate with a B.A. degree in Art must:

- Maintain a 2.5 GPA within the major.
- Complete 14 credit hours of Foreign Language.
- Complete 27 credit hours in the Art Foundation area, to include the following: ART 1305, ART 1306, ART 1307, and ART 2304; 6 hours of ART 1309, ART 1310, or ART 1317; and one 3-credit course in each of the following areas: 2-D studio, 3-D studio and media studio.
- Complete 6 credit hours of advanced Art History courses.
- Complete at least 14 credit hours of advanced studio courses and a portfolio presentation (ART 4201, 2 credits) to fulfill Art Concentration requirements.
- Complete 18 credit hours of coursework to earn the Minor in a non-studio subject area.

Bachelor of Arts in Art History

The B.A. program in Art History emphasizes historical research, preparing students for graduate work in art history or museum studies.

In addition to fulfilling University and the College of Liberal Arts requirements, students planning to graduate with a B.A. in Art History must also fulfill the following requirements:

- Maintain a 3.0 GPA within the major.
- Complete 14 credit hours of Foreign Language.
- Complete 9 credit hours in Art History Foundation courses: 6 hours of ART 1309, ART 1310, or ART 1317, ART 2300.
- Complete 18 credit hours of coursework to earn a Minor in a studio or non-art history academic area.
- Complete 30 credit hours in Advanced Art History and 1 credit hour Senior Research Presentation.

- Complete 3 credit hours in studio art.

Requirements for a Bachelor of Fine Arts Degree in Art

Students who are interested in a B.F.A. in Art can choose from diverse studio concentrations incorporating fine arts and/or media arts components. Both expand aesthetic awareness and develop personal expression in clay, drawing, glass, metals, painting, printmaking and sculpture in addition to technology-related emphases exploring concerns related to contemporary applications in visual communication, photography and film/video.

Regardless of which emphasis is selected, students are required to complete the Art Foundation requirements prior to beginning work in the concentration.

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours of ART studio support classes to satisfy the Liberal Arts Elective. This will be selected with the assistance of the Art Advisor.

Modern and Classical Languages

1441 or equivalent, and 1442.

Political Science

2311, 2312.

History

1311, 1312.

Science

Eight hours in a single lab science (biology, chemistry, geology, or physics).

Mathematics

Six hours (level of college algebra or higher).

Fine Arts

Satisfied by the major.

Social/Cultural Studies

The social and cultural studies requirement will be satisfied by designated courses, which have been approved by the Undergraduate Assembly. For a list of approved courses, contact the University Advising Center or the Art Department.

Electives

Sufficient to give the total number of hours required for a degree.

Major

72 hours to include the following:

Foundation

27 hours including ART 1305, 1306, 1307, 6 hours of 1309, 1310, or 1317, and 2304;

three hours of upper-level 2-D courses (2000-4000 level); three hours of upper-level 3-D courses (3000-4000 level); and three hours of media courses (film/video, visual communication, photography) (2000-4000 level).

Advanced Art History

Six hours from two of the following groups:

Group I (Ancient to Medieval): 3302, 3304, 3306, 3316, 3319, 3320, 3321, 4302, 4303, 4304, 4307.

Group II (Medieval to Modern): 3307, 3308, 3312, 3313, 3315, 3325, 3331, 3391, 4301, 4306, 4307, 4312, 4330.

Group III (Modern): 3310, 3311, 3313, 3314, 3315, 3331, 3389, 3391, 3392, 4301, 4307, 4308, 4310, 4314, 4315.

Art Concentration

39 hours, of which at least 36 hours must be advanced courses (3000/4000 level), including ART 4200, Professional Practices (or ART 4356 for Visual Communications majors) and ART 4100, B.F.A. Senior Exhibition.

Total

124 hours, of which at least 36 must be 3000/4000 level.

Requirements for a Bachelor of Arts Degree in Art

Students who are interested in a B.A. in art can choose from diverse studio concentrations incorporating fine arts and/or media arts components. Both expand aesthetic awareness and develop personal expression in clay, drawing, glass, metals, painting, printmaking, and sculpture in addition to technology-related emphases exploring concerns related to contemporary applications in visual communication, photography, and film/video.

Regardless of which emphasis is selected, students are required to complete the Art Foundation requirements prior to beginning work in the concentration.

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing. For a list of approved courses, contact the University Advising Center or the Art Department.

Modern and Classical Languages

1441 or equivalent, 1442, 2313, 2314.

Political Science

2311, 2312.

History

1311, 1312.

Science

Eight hours in a single lab science (biology, chemistry, geology, or physics).

Mathematics

Six hours (level of college algebra or higher).

Fine Arts

Satisfied by the major.

Social/Cultural Studies

The social and cultural studies requirement will be satisfied by designated courses previously approved by the Undergraduate Assembly. For a list of approved courses, contact the University Advising Center or the Art Department.

Electives

Sufficient to give the total number of hours required for a degree.

Major

47 hours to include the following:

Foundation

27 hours including ART 1305, 1306, 1307, and 2304; 6 hours of 1309, 1310, or 1317; three hours of upper-level 2-D courses (2000-4000 level); three hours of upper-level 3-D courses (3000-4000 level); and three hours of media courses (film/video, visual communication, photography) (2000-4000 level).

Advanced Art History

Six hours from two of the following groups:

Group I (Ancient to Medieval): 3302, 3304, 3306, 3316, 3319, 3320, 3321, 4302, 4303, 4304, 4307.

Group II (Medieval to Modern): 3307, 3308, 3312, 3313, 3315, 3325, 3331, 4301, 4306, 4307, 4312, 4330.

Group III (Modern): 3310, 3311, 3313, 3314, 3315, 3331, 3389, 3391, 3392, 4301, 4307, 4308, 4310, 4314, 4315.

Art Concentration

14 hours advanced courses (3000/4000 level).

Minor

Complete 18 credit hours of coursework to earn the minor in a non-studio subject area, at least six of which must be 3000/4000 level.

Total

120 hours, of which at least 36 must be 3000/4000 level.

Requirements for a Bachelor of Arts Degree in Art History

The B.A. in Art History is intended to provide a strong academic preparation for scholarly research and further study at the graduate level. In this degree program, the 18-hour minor requirement may be in studio art. Other suggested fields for the minor are history, literature, anthropology, psychology, philosophy, and modern languages. Students seeking the B.A. degree in art history must complete all the

requirements established by the College of Liberal Arts for the B.A. degree and an additional three hours of a 3000/4000-level history course.

Students are advised to complete the core requirements (the two-part survey and ART 2300) before beginning work in 3000/4000-level art historical courses. Students are required to take at least one course in each of the three groups: Ancient to Medieval (Group I), Medieval to Modern (Group II), and Modern (Group III). One course in a studio medium is required (prerequisites will be waived for art history majors). Art history majors may take an additional studio course in their 30 hours of 3000/4000-level art historical studies, as well as utilizing their elective hours for this purpose.

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing. For a list of approved courses, contact the University Advising Center or the Art Department.

Modern and Classical Languages

1441, 1442, 2313, and 2314 or equivalent.

Political Science

2311, 2312.

History

1311, 1312, and three advanced hours.

Mathematics

Six hours (level of college algebra or higher).

Science

Eight hours in a single lab science (biology, chemistry, geology, or physics).

Fine Arts

Satisfied by the major.

Social/Cultural Studies

The social and cultural studies requirement will be satisfied by designated courses, which have been approved by the Undergraduate Assembly. For a list of approved courses, contact the University Advising Center or the Art Department.

Electives

Sufficient to complete the total number of hours required for the degree.

Major

43 hours to include 6 hours of 1309, 1310, or 1317, 2300, three hours of studio art work, the one credit hour Senior Research Presentation Class, and 30 hours advanced art history, with at least one course chosen from each of the following three groups:

Group I (Ancient to Medieval): 3302, 3304, 3306, 3316, 3319, 3320, 3321, 4302, 4303, 4304, 4307.

Group II (Medieval to Modern): 3307, 3308, 3312, 3313, 3315, 3325, 3331, 3391, 4301, 4306, 4307, 4312, 4330.

Group III (Modern): 3310, 3311, 3313, 3314, 3315, 3331, 3389, 3391, 3392, 4301, 4307, 4308, 4310, 4314, 4315.

(An additional three hours of studio work may be included in these 30 advanced hours).

Minor

18 hours, at least six of which must be 3000/4000 level.

Total

120 hours, of which at least 36 must be 3000/4000 level.

Teacher Certification

Texas Teacher Certification in Art entails completion of 133 credit hours earned within the Department of Art and Art History and College of Education academic programs. It entails earning the B.F.A. degree in Art in addition to 15 hours of College of Education coursework that are required to fulfill minimum certification guidelines in Texas. Students earning the B.F.A. within this program are required to:

- Maintain a 3.0 GPA within the Art major.
- Maintain a 2.75 overall GPA as required by the College of Education.
- Earn a minimum score of 220 on Writing and 230 on Math portion of the THEA in addition to a 270 minimum score on the English portion of the Texas Success Initiative (Texas Higher Education Assessment) test.
- Submit official transcripts for credit hours earned at ALL colleges attended prior to enrollment at UT Arlington.
- Have maintained a sufficient overall GPA at previous colleges to be considered for admission to the College of Education Teaching Program. Acceptance into the college may be delayed if the student's overall GPA does not meet the minimum 3.25 required by the College.
- Must complete 12 credit hours of art methods courses and a Senior Presentation class* within the Art major:
  ART 3322 - Teaching Art (Lecture)
  ART 3359 - Exploration in 3D Studio (Lecture/Studio)
  ART 3323 - Exploration in 2D Studio (Lecture/Studio)
  ART 4365 - Multimedia Planning and Curriculum Development (Lecture/Studio)
- Must complete 15 credit hours of certification coursework within the College of Education:
  EDML 4300 - Human Growth and Development
  EDUC 4352 - Teaching Diverse Populations
  LIST 4343 - Reading
  EDUC 4647 - Residency

Art majors are encouraged to apply to the Teacher Education Program within the College of Education after one full semester of coursework has been completed at this university.

*Starting Fall 2007, graduating Art Certification students will be required to

give a lecture open to the public based on experiences within their concentration (K-12 Education). This lecture will be structured around the student's teaching philosophy, curriculum management issues from their internship, an overview of undergraduate Art Education classroom projects and residency material, as well as examples of the student's personal portfolio.

Art Certification students will still have the option to exhibit work by petitioning the media areas for faculty review in the 4100 B.F.A. Exhibition at the end of their graduating term under the same terms and conditions as established for other Studio Concentrated majors.

Consult the College of Education Advising Office for information concerning any additional application requirements and/or State of Texas requirements for certification.

Computer and Oral Competency

Students majoring in Art or Art History are required to demonstrate computer use and oral communication competency.

Computer use proficiency can be demonstrated by completion of:

- ART 2304, Digital Design (Studio majors)
- ART 2300, Methods for the Study of Art History (Art History majors)
- or by completion of the University administered computer competency exam.

Oral communication competency can be demonstrated by completion of:

- ART 2300, Methods for the Study of Art History (Art History majors)
- ART 4100 Senior Exhibition (Studio majors) or ART 4201 Portfolio Presentation (BA Studio majors)
- COMS 1301, 2305, 3302, or 3315.

Minor in Art

The student's major department must approve any minor. **However, students interested in Art as a minor (whether in Studio or Art History) must consult with the Art and Art History department's Academic Advisor to determine the selection of an approved** *sequence* **of courses and to see if there will be courses available for non-art majors.** A minor in art requires at least 18 semester hours in a given program, including six semester hours of advanced work.

Art and Art History Faculty

Chair

Professor Hower

Professors

Anderson, Huerta, Keens, North, Wright

Associate Professors

Graham, Grame, Jolly, Maroney, McWilliams, Ortiz, Palmeri, Vaccaro, Weiss, Wood

Assistant Professors

Hartley, Ikeda, Lauster, Lima, Murillo, Terrasi

Professor Emeritus

Bruno, Plummer

Classical Studies Program

305 Carlisle Hall · Box 19527 · 817-272-3216
www.uta.edu/philosophy/classics

Overview

Classical Studies ultimately touches upon almost every field of human inquiry. Indeed, the Western cultural tradition begins with the achievements of the ancient Greeks and Romans in a wide range of fields including politics, literature, art, and philosophy.

The Program in Classical Studies draws on the faculty of various departments in the College of Liberal Arts and acknowledges the importance of approaching the civilizations of the ancient Mediterranean world from a variety of disciplinary perspectives.

Minor

The Minor in Classical Studies aims to help students expand the depth and scope of their knowledge of ancient cultures and learn about different approaches to them. It will be of particular interest to those students majoring in anthropology, art, art history, history, modern languages, music, philosophy, political science, or theatre arts. In addition to these majors, students who intend to pursue graduate or professional studies in medicine, the law, art, classics, Biblical studies, ancient Near Eastern studies, or medieval studies will find a Minor in Classical Studies to their advantage.

Students seeking a minor in Classical Studies should first consult with advisors in their departments or programs for approval of the minor, then with the Director of Classical Studies. Students may combine courses in Classical Studies in various ways to comprise the following four minor options:

Option 1: Greek Language (20 hours, at least six of which must be 3000/4000 level) Required courses: GREK 1441, 1442, 2313, 2314, and two upper-level courses (GREK 4335 or GREK 4391)

Option 2: Latin Language (20 hours, at least six of which must be 3000/4000 level) Required courses: LATN 1441, 1442, 2313, 2314, and two upper-level courses (LATN 4335 or LATN 4391)

Option 3: Classical Civilization (20 hours, at least six of which must be 3000/4000 level) Required: EITHER GREK 1441 and 1442 OR LATN 1441 and 1442. The remaining 12 hours may be satisfied by any combination of the courses listed below, provided that they include 6 hours at 3000/4000 level:

GREK 1441, 1442 (if requirement above is met by LATN 1441 and 1442), 2313,2314, 2391, 4335, 4391

LATN 1441, 1442 (if requirement above is met by GREK 1441 and 1442), 2313,2314, 2391, 4335, 4391

CLAS 1300, 2300, 2303, 2307, 3310, 3320, 3323, 4335

ANTH 2339, 2349, 2355, 3370, 3371, 3372, 3373

ART 3302, 4302, 4303, 4304

ENGL 3339, 4380

HIST 3374, 3375, 3380

PHIL 3301, 3302

POLS 4327

Option 4: Ancient Studies (18 hours, at least six of which must be 3000/4000 level) This option may be satisfied using any combination of the courses listed under Option 3, provided that they include six hours at the 3000/4000 level.

INTS Bachelor of Arts

It is also possible to develop a customized bachelor of arts degree plan using Classical Studies component courses when majoring in UT Arlington's Interdisciplinary Studies (INTS) program. See www2.uta.edu/ints.

Ancient Language Courses

In addition to courses that are taught in English, the Classical Studies program also offers instruction in ancient Greek and Latin. Either of these languages satisfies the language requirement for liberal arts majors.

Classical Studies Faculty

Director

Professor Chiasson

The Department of Communication

118 Fine Arts Bldg. · Box 19107 · 817-272-2163
www.uta.edu/communication

Overview

The degree Bachelor of Arts in Communication is offered with multiple specializations. The department curricula provide students with an overview of the role and function of communication in society. These courses present a broad academic exposure, including theories, skills, techniques, critical analysis, historical perspectives, and aesthetic appreciation.

The Department of Communication seeks to emphasize theories and techniques which give students the ability to adapt to rapid changes in communication technology.

Within the major disciplines, specializations are available in advertising, broadcasting, communication technology, journalism, public relations, organizational communication, and speech communication. Additionally, there are two specializations for teacher certification: secondary teaching level in journalism and secondary teaching level in speech communication. Contact the College of Education for more information.

All majors in the Department of Communication must complete the following core courses: COMM 2315, COMM 3300 and COMM 3310.

Department of Communication GSP Placement Test

A passing score (70 percent or better) on the Grammar, Spelling, and Punctuation test is required before students can:

- Register for JOUR 1345-Media Writing, and/or
- Declare a major within the department, and/or
- Register for any upper level (3000 or 4000) course in the Department of Communication with the exception of COMS 3302.

The GSP test cannot be waived under any circumstances and applies to all communication majors, transfer students and non-majors who wish to take upper level (3000 or 4000) courses in the department with the exception of COMS 3302. The test may be taken a maximum of three times. If students do not pass the test on their third try they must wait a year before attempting it again. Students who desire tutoring may contact the Writing Center (817/272-2601 or www.uta.edu/owl/), which provides free tutoring by undergraduate and graduate peer tutors. The Writing Center will assist with grammatical issues but does not have copies of the GSP test.

Test Location and Dates

GSP tests are scheduled through UT Arlington Testing Services. Regular test dates are available throughout the school year. Please contact Testing Services for test schedules, fees and further information on the GSP see: Testing Services-201 Davis Hall (817)-272-2362 or www.uta.edu/universitycollege/prospective/testing-services/index.php

Please note that **it is the student's responsibility to register for and take the GSP test.** Students not fulfilling the GSP requirement will not be allowed to register for JOUR 1345, declare a major within the department and/or register for any upper level course work until the requirement is fulfilled.

Declaring a Major in the Department of Communication

I. Admission to Major

All undergraduate students seeking to declare a major in the Department of Communication (ADVT, BCMN, COMS, CTEC, JOUR, PREL) must meet the following criteria:

1. Successful completion of the Spelling, Grammar, and Punctuation Test with a score of 70%.

2. Completion of a minimum of 12 hours in residence at The University of Texas at Arlington with a minimum cumulative GPA of 2.0/4.0.

Students that do not meet these minimum requirements can request to be admitted as a COMM Intended major. Please see restrictions below.

II. Admission as a COMM Intended Major

1. Successful completion of the Spelling, Grammar, and Punctuation Test with a score of 70%.

2. COMM Intended majors may enroll in up to a total of 18 hours in the Department of Communication (ADVT, BCMN, COMS, CTEC, JOUR, PREL).

3. Students who do not achieve a cumulative UT Arlington GPA of 2.0/4.0 by

the completion of 18 hours in the Department of Communication will not be cleared to continue in the department.

III. Dismissal from Department of Communication COMM Intended Status

Students who do not meet the requirements for declaring a Department of Communication major after completing eighteen (18) hours of communication course work will not be allowed to take additional communication courses at UT Arlington. The student will be suspended from the Department of Communication COMM Intended status and must choose a major other than COMM Intended at that time in order to remain enrolled at UT Arlington.

General Academic Standards in the Department of Communication

1. Graduation as a major in the Department of Communication must meet the UT Arlington graduation standard of a minimum GPA of 2.0/4.0.

2. Graduation as a major in the Department of Communication must meet the department graduation standard of a minimum cumulative GPA of 2.0/4.0 in all department courses (ADVT, BCMN, COMS, CTEC, JOUR, PREL).

Requirements for a Bachelor of Arts Degree in Communication

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing.

Modern and Classical Languages

1441, 1442, 2313, and 2314 or equivalent.

Political Science

2311, 2312.

History

Six hours of American history or three hours of American and three hours of Texas history.

Mathematics

Six hours (level of college algebra or higher, see individual sequences for additional statistics requirement).

Science

Eight hours in a single lab science (biology, chemistry, geology, or physics).

Social/Cultural Studies

Three hours of designated courses in archaeology, classical studies, communication, economics, foreign languages, history, humanities, linguistics, political science, social or cultural anthropology, social/political/cultural geography, social psychology, sociology, or women's studies.

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Electives

Sufficient to give the total number of hours required for a degree.

Major

A minimum of 39 semester hours, 18 of which must be 3000/4000-level courses. A student must complete the requirements for one of the departmental specializations.

Minor*

18 hours, six of which must be 3000/4000 level, selected after consulting with an advisor.

Total

120 hours, at least 36 of which must be 3000/4000 level.

*In addition to these requirements, journalism majors must choose a minor outside the Communication Department but within the Colleges of Liberal Arts or Sciences.

Department of Communication Degree Programs

Please note that all students must pass the GSP test (see "Department of Communication GSP Placement Test" above) before registering for JOUR 1345, and/or declaring a major within the department, and/or registering for any upper level (3000 or 4000) courses in the Communication Department with the exception of COMS 3302.

Advertising

JOUR 1345.
ADVT 2337, 3304, 3305, 3306, 4300, 4301.
COMM 2315, 3300, 3303, 3310.
PREL 2338.
Three hours electives in the department at the 3000/4000 level.
ECON 2305 or FECO 3310.
MARK 3321 or FMRK 3350.

A minimum grade of C (2.0/4.0 scale) or higher in JOUR 1345 and ADVT 2337 must be achieved prior to enrolling in any upper-division advertising course. Advertising majors must meet the following math requirement: MATH 1308, Elementary Statistical Analysis, with a grade of C (2.0/4.0 scale) or higher, and three hours of college algebra or higher.

Broadcasting

JOUR 1345 with a grade of C (2.0/4.0) or higher.
BCMN 2347, 2357, 2358, 2360, 3340, 3319 or 3350, 4320 or 4350. COMM 2315, 3300, 3310.
COMS 2305, COMS 3302 or BCMN 3355.
Three hours electives in the department at the 3000/4000 level.

BCMN 2347, 2357, 2358 and 2360 must be completed with a grade of C (2.0/4.0 scale) or higher before enrolling in any upper-level BCMN courses.

Communication Studies

Organizational Communication

COMS 1301, 2304, 2305, 3309, 4315.
Six hours from COMS 3310, 3316, 3320.
Six hours from COMS 4300, 4320, 4322.
Three hours from COMM 4000-level courses.
COMM 2315, 3300, 3310.

Speech Communication

COMS 1301, 2304, 3310, 3312 or 4302, 3315, 3316.
Six hours from COMS 3321, 3322, 3323.
Six hours from COMS 4300, 4315, or 4321.
COMM 2315, 3300, 3310.

Communication Technology

JOUR 1345.
COMM 2315, 3300, 3310.
COMM 3303.
CTEC 2350, 3320, 3350, 4309, 4350.

Three hours from CTEC 4321, 4323, or 4331.

COMS 3302.

Three hours electives in the department.

Journalism

JOUR 1345, 2340, 2346, 3345, 4325, 4326, 4346. COMM 2315, 3300, 3310, 3303.
Six hours from the following courses: JOUR 3341, 4327, 4341, 4395, CTEC 2300, 3320, 3350, BCMN 3340 or 3350.
Three hours from the following courses: COMS 1301, 2305, 3302, 3315, 4315.
Journalism majors must meet the following math requirement: MATH 1308, Elementary Statistical Analysis, with a grade of C (2.0/4.0 scale) or higher, and three hours of college algebra or higher.

Public Relations

JOUR 1345, 2346, and one of the following: JOUR 3345, 4326, 4327, COMM 4300, or PREL 4395.
PREL 2338, 3339, 3355, 4320, 4316.
COMM 2315, 3300, 3310, 3303. ADVT 2337.
ECON 2305 or FECO 3310.
MARK 3321 or FMRK 3350.
PREL 2338 must be completed with a grade of C (2.0/4.0 scale) or higher before enrolling in any upper-level PREL courses.
Public relations majors must meet the following math requirement:
MATH 1308, Elementary Statistical Analysis, with a grade of C (2.0/4.0 scale) or higher, and three hours of college algebra or higher.

Teacher Certification

Department specializations that provide for teacher certification are the following: secondary teaching level in journalism or speech communication. Students interested in Texas Teacher Certification should consult the College of Education section of this catalog for the most recent changes in requirements regarding admission to teacher education, completion of University programs in preparation for certification, and eligibility for certification after graduation. Students whose major is taken in the Department of Communication will complete at least 30 semester hours in the major field.

Students seeking teacher certification with a major in a communication field should follow the sections below:

Secondary certification, journalism major requirements (30 semester hours):

COMM 2315, 3310 and 4305.
JOUR 1345, 2340, 2346, 3345, 4325 and 4326.
Three additional hours of advanced JOUR.

Secondary certification, speech communication major requirements (33 semester hours):
COMM 1300.
COMS 1301, 1302, 2304, 3305 or 3307, and 3315.
Six hours from COMS 3321, 3322, or 3323.
Six hours from COMS 3309, 3310, 3316 or 3320.
Three hours from COMS 4300, 4302 or 4321.

Computer and Oral Competency

Computer use proficiency can be demonstrated by (a) successful completion of CSE 1301 or equivalent; (b) passing the University proficiency test measuring practical applications, ability and fundamental knowledge of computers; or successful completion of one of the following: CTEC 2300, CTEC 2350, COMM 3300, 3303, JOUR 1345, PREL 3339, ADVT 3304, 3305 or 3306.

Oral communication proficiency can be demonstrated by successful completion of COMS 1301, 2305, 3302, 3315, 4315, ADVT 4301, PREL 4316 or BCMN 1355.

Students should discuss these options with their undergraduate advisor who may also provide a list of other courses approved by the University to meet these requirements.

Communication Faculty

Chair

Associate Professor Markham Shaw

Professors

Spaniolo

Associate Professors

Christie, Clark, Ingram, Megwa

Assistant Professors

Broadway, Chatterjee, Grant, Horton, Jang, Lopez-Preciado, Pribanic-Smith, Su, Wigley

Professor Emeritus

Cox, McCallum

The Department of Criminology and Criminal Justice

362 University Hall · Box 19595 · 817-272-3318
www.uta.edu/criminology

Overview

The Department of Criminology and Criminal Justice (CRCJ) at The University of Texas at Arlington is designed to strike a balance between theory and application. The department's curriculum emphasizes the theoretical foundations necessary to understand human behavior; the criminal justice system; and the application of theoretical knowledge to the development and critical analysis of policy implications. The curriculum provides strong preparation for graduate work in both academic and professional programs and prepares students to more fully understand, analyze, and operate in a variety of settings within or related to the justice system.

The curriculum includes

- general education courses required to provide a foundation in the liberal arts,
- disciplinary courses that provide valuable theoretical and methodological perspectives, and
- courses that examine various aspects of crime and the judicial systems; law enforcement, and correctional processes designed to respond to the crime problem.

Requirements to Major in Criminology and Criminal Justice

Students admitted to UT Arlington from high school or transfer students who have completed less than 30 hours of transferable college credit will be admitted as Criminology and Criminal Justice (CRCJ)-Intended majors, and will be allowed to declare CRCJ as their major based on the following criteria:

- Completed at least 15 hours of the University core courses with a minimum 2.0 GPA
- Completed both CRCJ 2334, Introduction to Criminal Justice, and one other CRCJ core course with at least a C, and earned at least 15 grade points in the two courses combined (2.5 GPA)

Students admitted to UT Arlington who have completed 30 or more hours of transferable college credit will allowed to declare CRCJ as their major based on the following criteria:

- Achieved a minimum 2.25 GPA for all college credit earned, and
- Completed CRCJ 2334, or an equivalent course, and one other UT Arlington CRCJ core course, or equivalent course, with at least a C and earned at least 15 grade points in the two courses combined (2.5 GPA).

Students already admitted to UT Arlington, who previously declared a major other than CRCJ, who desire to change to CRCJ as their major will be accepted based on the following criteria:

- Completed at least 15 hours of the College of Liberal Arts core courses,
- Achieved a minimum 2.25 GPA in all hours completed at UT Arlington, and
- Completed both CRCJ 2334, Introduction to Criminal Justice, and one other CRCJ core course with at least a C, and earned at least 15 grade points in the two courses combined (2.5 GPA).

Requirements for a Bachelor of Arts Degree in Criminology and Criminal Justice

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours of any CRCJ course.

Modern and Classical Languages

1441, 1442, 2313, 2314 or equivalent.

History

1311, 1312.

Political Science

2311, 2312.

Mathematics

Six hours (level of college algebra or higher)

Science

Eight hours in a single natural laboratory science (biology, chemistry, geology, or physics).

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Social/Cultural Studies

SOCI 1311

Major

A CRCJ major consists of 54 hours, including 33 hours of required CRCJ core courses and 21 hours of major electives. In addition to fulfilling University and College of Liberal Arts requirements, students planning to graduate with a B.A. in Criminology and Criminal Justice (CRCJ) must also fulfill the following requirements:

- Be a declared CRCJ major,
- Achieve a minimum overall 2.0 GPA in all courses taken at UT Arlington,
- Earn a C or better in all major courses required for the degree, and
- Maintain a minimum 2.5 GPA in all CRCJ courses taken, including approved electives selected from ECON, HIST, POLS, and SOCI.

CRCJ Core (Required)

Students majoring in CRCJ must complete CRCJ 2334 or equivalent, or have permission of advisor, before taking other criminology and criminal justice core courses. CRCJ required core courses consist of CRCJ 2334, 2335, 2350, 3300, 3310, 3338, 3340 (or SOCI 3352), 3350, 4301, 4332 or 4333, and 4380.

CRCJ Major Electives

Twenty-one (21) hours, of which at least 15 hours must be CRCJ-prefix courses. CRCJ 2340, 3307, 3336, 3337, 3370, 3382, 3385, 3390, 3395, 4309, 4315, 4320, 4325, 4332 or 4333, 4345, 4352, 4355, 4365, 4370, 4371, 4386, 4387, 4388, 4389, 4390, 4191, 4291, 4391, 4394; ECON 3302, HIST 3317, 3318, POLS 3331,3333, 3335, 4332, and SOCI 3320 and 3357.

Minor

A minor is not required, but is optional. A minor, if chosen, consists of 18 hours, of which at least six hours must be 3000/4000 level.

Additional Electives

Eight hours of courses taken from any discipline, sufficient to reach the total hours required for the degree.

Total

120 hours, at least 36 of which must be 3000/4000 level.

Requirements for a Minor in Criminology and Criminal Justice

A minor in CRCJ consists of 18 semester hours, of which at least 12 must be 3000/4000 level. CRCJ 2334, Introduction to Criminal Justice, and CRCJ 4301 are required courses for a CRCJ minor. Students must earn a 2.0 GPA in all CRCJ courses taken toward the minor.

Computer and Communication Competency

Computer Use: Students majoring in Criminology and Criminal Justice may demonstrate competency in computer use by taking either CSE 1301, INSY 2303, or any other course approved by the Undergraduate Assembly for this purpose. They may also demonstrate competency by passing the University proficiency examination in computer use.

Communication: Students majoring in Criminology and Criminal Justice may demonstrate competency in communication by taking either COMS 1301, 2305, 3302, 3315, or any other course approved by the Undergraduate Assembly for this purpose.

Certificate in Law Enforcement Administration

The Department of Criminology and Criminal Justice (CRCJ) at UT Arlington, and the Institute for Law Enforcement Administration (ILEA), which is one of seven institutes within the Center for American and International Law, Plano, TX, combine to offer a Certificate in Law Enforcement Administration for police officers, supervisors, and managers. To receive the certificate, officers must complete four courses offered by ILEA (13 student credit hours) and five courses (15 student credit hours) offered by the CRCJ Department at UT Arlington. Courses to be taken at or through ILEA are LEA 200, School of Police Supervision; LEA 220, Fair Labor Standards Act Law; ETH 100, Ethical Decision Making; and ETH 150, Ethics Train-the-Trainer. Courses offered by the CRCJ Department at UT Arlington are online courses and include CCJO 2310, Introduction to Criminal Justice; CCJO 3370, Ethnic and Gender Issues in Criminal Justice; CCJO 4330, American Judicial Systems; CCJO 4336, Comparative Criminal Justice Systems; and CCJO 4352, Criminal Careers and Behavior Systems.

Certificate in Legal Studies

The Department of Criminology and Criminal Justice (CRCJ) at UT Arlington, offers a Certificate in Law Legal Studies for persons working in the legal field. To receive the certificate, students must complete five courses (15 credit hours) offered by the department. The courses are CRCJ 2334, Introduction to Criminal Justice; CRCJ 3337, Advanced Criminal Procedure; CRCJ 4301, American Judicial Systems; and any two of the following courses: CRCJ, 4320, Forensic Psychology; CRCJ 4365, Capital Punishment; CRCJ 4370, Actual Innocence and Wrongful Convictions; or CRCJ 4371, The Innocence Project Practicum.

Criminology and Criminal Justice Faculty

Chair

Professor del Carmen

Associate Professor

Bing

Assistant Professors

Davis, Dobbs, Gould, Fowler, Jeong, Rodriguez, Stickels

Visiting Assistant Professors

Elkins, Paris, Phillips,

Senior Lecturer

Butler

Lecturer

Price

Requirements for the Online Bachelor Degree in Criminology and Criminal Justice

This degree is offered via the UT TeleCampus and is designed with the criminal justice and law enforcement professional in mind. Students who have already completed the first two years of undergraduate courses, can complete the bachelor degree program by taking the upper level courses online, taught by the same faculty who teach on-campus courses . The courses are taught entirely online and do not required any on-campus visits. This 66-credit hour program, combined with the appropriate lower-division undergraduate course work, will lead to a Bachelor in Criminology and Criminal Justice degree from UT Arlington. To earn a Bachelor in Criminology and Criminal Justice degree from UT-Arlington, students must earn grades of C or better in all major courses required for the degree. Students must maintain a minimum 2.5 GPA in major courses to remain in the program and must graduate with 2.5 GPA or higher in all major courses. To learn more about this program, please visit: http://www.telecampus.utsystem.edu/catalog/programs/programinfo/ccjo.aspx.

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing.

History

1311, 1312.

Political Science

2311, 2312.

Mathematics

Six hours (level of college algebra or higher).

Science

Eight hours in a single natural laboratory science (biology, chemistry, geology, or physics).

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Social/Cultural Studies

Three hours of designated courses in archaeology, classical studies, communication, economics, history, humanities, linguistics, political science, social or cultural anthropology, social/political/cultural geography, social psychology, sociology or women's studies.

Major

CRCJ 2334 (CCJO 2310) Introduction to Criminal Justice (UTA)
CRCJ 3350 (CCJO 3320) Introduction to Research Methods (UTA)
CRCJ 3380 (CCJO 3370) Ethnic and Gender Studies (UTA)
CRCJ 4301 (CCJO 4330) American Judicial Systems (UTA)
CRCJ 4380 (CCJO 4336) Comparative Criminal Justice System (UTA)
CRCJ 4333 (CCJO 4350) Institutional Corrections (UTA)
CRCJ 4315 (CCJO 4352) Criminal Careers and Behavior Systems (UTA)
CRIJ 3315 (CCJO 3322) Legal Aspects of Evidence (UTB)
CRIJ 3331 (CCJO 3326) Legal Aspects of Corrections (UTB)
CRIJ 4370 (CCJO 4338) Senior Seminar in Criminal Justice (UTB)
CRIJ 4312 (CCJO 4358) Principles of Law Enforcement Supervision (UTB)
CRIJ 4341 (CCJO 4360) Correctional Casework and Counseling (UTB)
CRIJ 4313 (CCJO 4362) Seminar of Issues in Law Enforcement (UTB)
CCJO 3312 (formerly CRIM 3340) Criminal Justice Administration (UTPB)
CCJO 3332 (formerly CRIM 3365) Juvenile Delinquency and Justice (UTPB)
CCJO 4316 (formerly CRIM 4332) Theories of Criminal Behavior (UTPB)
CCJO 4354 (formerly CRIM 4381) Ethics in Criminal Justice (UTPB)
CCJO 4356 (formerly CRIM 4321) Probation and Parole (UTPB)
CCJO 4364 (formerly CRIM 4382) Police and the Community (UTPB)
PSYC 4305 (CCJO 4372) Drugs and Behavior (UTPB)

Students must select two of the following five elective courses to complete the major requirements:

CRIJ 4363 (CCJO 4366) Gangs and Gang Behavior (UTB)
CJS 3320 (CCJO 3374) Homicide and Capital Punishment (UTD)
CRIJ 4300 (CCJO 4300) Forensics DNA Analysis (UTEP)
BIOL 3320 (CCJO 3324) Genetics (UTEP)
BIOL 4395 (CCJO 4395) Toxicology (UTEP)

Note: UT Arlington denotes classes offered by The University of Texas at Arlington; UTB denotes classes offered by The University of Texas at Brownsville; UTPB denotes classes offered by The University of Texas at Permian Basin; UTD denotes classes offered by The University of Texas at Dallas; and UTEP denotes classes offered by The University of Texas at El Paso.

Electives

10 hours.

Total

120 hours.

Students will satisfy the computer and communications competencies during completion of the online core courses required for the BCRCJ degree.

The Department of English

203 Carlisle Hall · Box 19035 · 817-272-2692
www.uta.edu/english

Overview

By studying literature, rhetoric, and composition, English majors acquire experience in assimilating large amounts of material representative of many cultures and periods. They learn critical approaches to texts that enable them to interpret and compare interpretations, to read closely, critically, and with empathy, to conduct research, to weigh evidence, and to write with insight and expertise.

These skills are widely applicable. They enable English majors to seek out and create careers in education, business, research and development, government, media, foundations, and publishing.

By majoring in English, students are simultaneously involved with two activities that are essentially and uniquely human: language and art. They make contact with the literary classics of America, England, and the world. They learn what men and women have thought about themselves and their worlds over the course of history, and they experience what others have experienced in their own words. They learn to understand the power of language and to use it well.

Admission to Department of English Degree Programs

There are no special requirements that prospective majors in the Department of English must fulfill beyond the minimum 2.0 GPA and the completion of (a) 30 hours in residence and 30 hours of the core curriculum or (b) 12 hours in residence and 40 hours of the core curriculum.

Requirements for a Bachelor of Arts Degree in English

Modern and Classical Languages

1441, 1442, 2313, and 2314 or equivalent.

Political Science

2311, 2312.

History

1311, 1312, and six hours of English or world history.

Mathematics

Six hours at the level of college algebra or higher.

Science

Eight hours in a single natural laboratory science (biology, chemistry, geology or physics).

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Social/Cultural Studies

Three hours of social and cultural studies selected from designated courses which have been approved by the Undergraduate Assembly. For a list of approved courses, contact the University Advising Center or the English Department.

Electives

Sufficient to complete the total number of hours required for the degree.

Major

A total of 42 hours. To count toward the major, each English course must be completed with a grade of C or better. The required courses include:

- ENGL 1301 and 1302 (or waivers for advanced standing).
- ENGL 2350 (English majors must take this course before receiving credit for any 3000/4000-level English courses).
- Three hours of literature on the sophomore level or above.
- 18 hours of required 3000/4000-level courses:
    - ENGL 3340, History of American Literature
    - ENGL 3351, History of British Literature I
    - ENGL 3361 or 3362, History of World Literature I or II
    - ENGL 3344 or 3345 or 3346 or 3347 or 3355 or 3364 or 3370 or 4340 (Cultural Diversity Group)
    - ENGL 3384 or 4301 (Linguistics/Philology Group)
    - ENGL 4355 or 4356 or 4339 or 4345 (Criticism/Theory Group)
- Nine hours of 3000/4000-level electives.
- ENGL 4399, Senior Seminar (Capstone Course)

Minor

18 hours, at least six of which must be 3000/4000 level.

Total

120 hours, of which at least 36 must be 3000/4000 level.

Teacher Certification

Students wishing to take a Bachelor of Arts Degree in English with Secondary Teacher Certification must complete LIST 4343 and 36 hours in English. To count toward the major, each English course must be completed with a grade of C or better. The required English courses are:

- ENGL 1301 and 1302 (or waivers for advanced standing).
- ENGL 2350 (English majors must take this course before receiving credit for any 3000/4000-level English courses).
- Three hours of literature on the sophomore level or above.
- ENGL 3340, History of American Literature
- ENGL 3351, History of British Literature I
- ENGL 3361 or 3362, History of World Literature I or II
- ENGL 3371 or 3372 or 4371 or 3374 or 4374 (Writing/Composition Group)

- ENGL 3344 or 3345 or 3346 or 3347 or 3355 or 3364 or 3370 or 4340 (Cultural Diversity Group)
- ENGL 3384 or 4301 (Linguistics/Philology Group)
- ENGL 4326, Shakespeare
- ENGL 4370, Theory and Practice
- The requirement of six hours of English or world history does not pertain to students obtaining teacher certification.

Minoring in English

An English minor may be achieved by completing eighteen hours in English with a grade of C or better. At least six of the hours must be on the 3000- or 4000-level. In addition to this minor, English also offers a minor in Writing and a minor in Creative Writing.

Option for Minor in Writing

The Writing Option is offered for students who wish to concentrate in writing as a part of their undergraduate curriculum. With the permission of their departmental Undergraduate Advisor, students may enroll in a series of courses and obtain a minor in writing.

Students selecting the Writing Option should consult first with the Undergraduate Advisor in their department or program for approval of the minor, then with the undergraduate English advisor. Working with advisors, students will select a sequence of advanced courses to fulfill their minor requirements. All English courses must be completed with a grade of C or better.

Required Courses for Students Selecting the Writing Option:
English 3371.
Nine hours of advanced writing electives.

Option for Minor in Creative Writing

The Minor in Creative Writing is offered for students wishing to do intensive work in creative writing to supplement an English major or other majors. Students selecting the Creative Writing Minor should consult first with the Undergraduate Advisor in their department or program for approval of the minor, and then with the Undergraduate English Advisor. All English courses must be completed with a grade of C or better.

Required Courses for Students Selecting the Minor in Creative Writing:
ENGL 1301 and 1302.
Two of the following: ENGL 2303, 2309, 2319, 2329, 2350.
ENGL 3375.
Nine hours of advanced creative writing courses: ART 3350, ART 4354 (ART 3350 is a prerequisite for this course), THEA 3320, multiple sections of ENGL 4330.

The Medieval and Early Modern Studies Minor

The medieval and early modern world saw major social and cultural changes-the rise of the middle class, the development of the individual, the emergence of the nation state, and the consolidation of many modern languages. The Medieval and Early Modern Studies minor fosters interdisciplinary study of these periods, encouraging students to explore and connect topics in language, literature, history, art, and philosophy. The minor in Medieval and Early Modern Studies comprises courses taught by members of various departments in the College of Liberal Arts.

Students seeking to minor in Medieval and Early Modern Studies should first consult

with advisors in their departments or programs for approval of the minor, then with the Director of the Minor in Medieval and Early Modern Studies (currently Dr. Sarah Davis-Secord of the Department of History). A minor in Medieval and Early Modern Studies consists of six courses (18 hours total; six hours upper level) selected from the courses listed below, with no more than nine hours to be completed within any single discipline. In addition, other relevant topics courses not listed below may be used to fulfill the minor, with the approval of the Director of the Minor in Medieval and Early Modern Studies. Students should consult the catalog and/or the appropriate department for prerequisites.

ART 3306 Byzantine and Medieval Art
ART 3307 The Early Renaissance
ART 3308 High Renaissance
ART 4306 Mid-Renaissance
ART 4396 Special Studies in Art History (if topic relevant)
ENGL 2303 Topics in Literature (if topic relevant)
ENGL 3351 History of British Literature I
ENGL 4301 History of the English Language
ENGL 4321 Medieval British Literature
ENGL 4322 Sixteenth-Century British Literature
ENGL 4323 Seventeenth-Century British Literature
ENGL 4325 Chaucer
ENGL 4326 Shakespeare
ENGL 4334 Special Topics in British Literature (if topic relevant)
ENGL 4381 Medieval Literature
ENGL 4382 Renaissance and Baroque Literature
ENGL 4386 Dante
FREN 3311 French Literature and Culture
FREN 4332 Studies in Medieval and Renaissance Culture
GERM 3318 Special Topics in German Studies (if topic relevant)
GERM 4321 Topics in Literature & Culture (if topic relevant)
HIST 2313 History of England
HIST 3376 Medieval Europe I
HIST 3377 Medieval Europe II
HIST 3378 Europe: The Renaissance
HIST 3379 Europe: The Reformation and Counter-Reformation
HIST 3383 Early Modern Europe, 1580-1789
HIST 4330 Medieval Crusade and Jihad
HIST 4331 Medieval Travelers
HIST 4345 Tudor-Stuart England, 1485-1714
HIST 4354 Early France: Old Regime and Revolution, 1610-1799
HIST 4365 History of Spain and Portugal
HIST 4388 Selected Topics in History (if topic relevant)
LATN 1441 Latin Level I
LATN 1442 Latin Level II
LATN 2313 Latin Level III
LATN 2314 Latin Level IV
LATN 4391 Conference Course (if topic relevant)
PHIL 3302 History of Philosophy: Roman and Medieval Philosophy
PHIL 3303 History of Philosophy: Renaissance and Early Modern European Philosophy
SPAN 3302 Hisp Lit Trans (if topic relevant)
SPAN 4310 Topics in Peninsular Spanish Literature and Culture to the Eighteenth Century
SPAN 4313 Topics in Hispanic Culture (if topic relevant)
SPAN 4330 Topics in Spanish Linguistics (if topic relevant)

For information on the Medieval and Early Modern Studies minor, contact the Director at sdavis-secord@uta.edu.

Competence in Oral Presentations

Students obtaining a Bachelor of Arts degree in English can demonstrate oral proficiency by passing COMS 1301, COMS 1302, COMS 2305, or COMS 3315 (or equivalent).

Competence in Computer Use

Students obtaining a Bachelor of Arts degree in English can demonstrate computer proficiency by: (a) passing ENGL 3372, 3374 or 4374; or (b) passing CSE 1301 (or equivalent); or (c) passing the University computer literacy examination.

English Faculty

Chair

Professor Faris

Professors

Cohen, Morris, L. Porter, Roemer

Associate Professors

Alaimo, Frank, Gustafson, Ingram, May, K. Porter, Smith

Assistant Professors

Arcé, Guertin, Henderson, Matheson, Richardson, Ryan, Stodnick, Tigner, Warren

Professors Emeritus

Barros, Eichelberger, Estes, Goyne, Lacy, J. McDowell, R. McDowell, T. Porter, Wood

Course Descriptions

View Course Descriptions for:

English (ENGL)

Information on Sophomore Courses

Unless otherwise indicated, six hours of first-year English credit is prerequisite to all 2000-level courses. Students who are not majoring in English may register for ENGL 2303, ENGL 2309, ENGL 2319 or ENGL 2329. Students who plan to major in English must take ENGL 2350, even if they have already completed six hours of sophomore literature.

The Department of History

202 University Hall · Box 19529 · 817-272-2861
www.uta.edu/history

Overview

The study of history explores the basic forces that have shaped human affairs and is therefore a means for dealing with present concerns and future problems. An appreciation of our heritage develops a sense of our identity. Historical inquiry also provides the necessary background for the study of other disciplines such as economics, literature, art, language, and the social as well as natural sciences.

Students of history develop important critical skills that are the hallmark of educated people: the ability to reason and analyze; the capacity to investigate problems and synthesize diverse information; facility in expressing ideas or data clearly and precisely. The History Department encourages an open and questioning attitude toward the diversity of human experiences and ideas. An awareness of cultural differences between various groups of people will provide insights concerning the basic issues of world civilization. Students of history are

encouraged to read analytically, speak cogently, and write coherently.

Both the curriculum and the methodology of the History Department are multifaceted. The History Department, therefore, requires that students take courses in both chronological and topical areas in United States and world history. The history faculty specializes in such diverse methodologies as quantitative analysis and social and political history, as well as the more traditional biographical and narrative approaches. Thus students are exposed to the many ways of studying the past and the present.

A degree in history prepares students for a variety of careers, including teaching, archival administration, business, journalism and communications, historical preservation, law, and public affairs. More importantly, by providing insight into the causes and effects of change in society, a knowledge of history prepares every individual for life in a complex world.

Admission to Department of History Degree Programs

There are no special requirements that prospective majors in the Department of History must fulfill beyond entering with a minimum 2.25 GPA. In order to graduate students must have a 2.0 GPA overall and in history courses. Students are strongly encouraged to complete the core requirement before enrolling in upper level history courses.

Requirements for a Bachelor of Arts Degree in History

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing.

Modern and Classical Languages

1441, 1442, 2313, and 2314 or equivalent.

Political Science

2311, 2312.

Mathematics

Six hours (level of college algebra or higher; 1301 or 1308 recommended).

Science

Eight hours in a single lab science (biology, chemistry, geology, or physics).

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Social/Cultural Studies

Three hours of designated courses in archaeology, classical studies, communication, economics, history, humanities, linguistics, political science, social or cultural anthropology, social/political/cultural geography, social psychology, sociology or women's studies.

Electives

Sufficient to give the total number of hours required for a degree.

Major

Core (Required)

1311, 1312. (Students with a satisfactory SAT achievement score in U.S. history or other proof of a strong background in U.S. history may wish to enroll in an honors section or opt to substitute six hours of advanced courses in U.S. history.)

2301, 2302, (or 2313, 2314 for pre-law majors). Three hours from 3300 or 4394. 4394 is restricted to honors students.

It is strongly recommended that history majors complete the core requirement before enrolling in upper level history courses.

Core (Advanced)

21 hours from the following groups, with at least six hours from each:

Group A: Advanced U.S. History

3310, 3311, 3315, 3317, 3318, 3320, 3321, 3322, 3323, 3324, 3325, 3326, 3327, 3328, 3330, 3334, 3342, 3348, 3349, 3350, 3351, 3352, 3353, 3354, 3355, 3356, 3357, 3358, 3359, 3360, 3361, 3362, 3363, 3364, 3365, 3366, 3367, 3368, 3369, 3370, 3372, 3373.

Group B: Advanced Non-U.S. History

3374, 3375, 3376, 3377, 3378, 3379, 3380, 3382, 3383, 3384, 4330, 4331, 4345, 4348, 4349, 4350, 4351, 4352, 4354, 4355, 4356, 4357, 4358, 4359, 4360, 4361, 4362, 4365, 4366, 4367, 4368, 4369, 4374, 4375, 4376, 4377, 4378, 4379, 4383, 4384.

(3307, 3309, 3319, 3389, 3390, 4301, 4388, 4391 may be used for credit in either U.S. or World history depending on the subject.)

Minor

18 hours, at least six of which shall be 3000/4000 level.

Total

120 hours, at least 36 of which must be 3000/4000 level.

All history majors in consultation with their advisor will design an appropriate course of upper level study in history.

Teacher Certification

Students interested in Texas Teacher Certification should consult the College of Education section of this catalog for the most recent changes in requirements regarding admission to Teacher Education, completion of University programs in preparation for certification, and eligibility for certification after graduation.

Bachelor of Arts Degree in History (Pre-Law Option)

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Political Science

2311, 2312; and six hours chosen from 3330, 3331, 3333, 3334, 3335, 3336, 4331, 4332.

Modern and Classical Languages

1441, 1442, 2313, and 2314 or equivalent.

Mathematics

Six hours (level of college algebra or higher; 1301 or 1308 recommended).

Science

Eight hours in a single lab science (biology, chemistry, geology or physics)

Business Administration

BLAW 3311 or 3312 or 4310.

Economics

ECON 2305 or 2306 or 4335.

Sociology/Anthropology

Three hours from any SOCI or ANTH 3000/4000 level.

Criminal Justice

Three hours from CRCJ 2334, 2340, 3300, 3337, 3390, 4331, 4380.

Philosophy

PHIL 1301 or 2311.

Major

33 hours, 21 hours 3000/4000 level, to include 1311, 1312, 2313, 2314, 3300.

12 hours from 3317, 3318, 3319, 3320, 3322, 4350, 4385.

Six additional hours of any 3000/4000-level history course.

Minor

18 hours, at least six 3000/4000 level.

It is strongly recommended that history majors complete the core requirement before enrolling in upper level history courses.

Total

120 hours, at least 36 of which must be 3000/4000 level.

Bachelor of Arts Degree in History (Minority Studies Option)

Students selecting this option will be expected to work closely with the department advisor in choosing courses. All requirements for the regular history degree must be fulfilled as well as the following additional requirements:

Major

HIST 1311, 1312, 2301, 2302, 3300 or 4394 (Honors) and 12 hours from HIST 3320, 3362, 3365, 3366, 3367, 3368, 3369, and three hours of any 3000/4000 level U.S. history; 6 hours from 4366, 4367, 4369, 4374, 4375, 4376, 4377, 4378.

Minor

18 hours, at least six advanced.

Electives

Sufficient number to give total of 120 academic hours.

Bachelor of Arts Degree in History (Women's History Option)

Students selecting this option will be expected to work closely with the department advisor in choosing courses. All requirements for the regular history degree must be fulfilled as well as the following additional requirements:

Major

HIST 1311, 1312, 2301, 2302, 3300 or 4394 (Honors) and 12 hours from HIST 3309, 3310, 3311, 3315 and 3 hours of any 3000/4000 level U.S. history; 6 hours from 3000/4000 non-U.S. history.

Minor

18 hours from Women's Studies Program (at least six 3000/4000 level and cannot include courses cross-listed with History).

Electives

Sufficient number to give total of 120 academic hours.

Oral Communication Competency

Students majoring in History demonstrate competency in oral communication by successfully completing HIST 3300. The department advisor must certify completion of this requirement.

Computer Use Competency

Students majoring in History demonstrate competency in computer use by successfully completing the sophomore level of a Foreign Language course when taken at UT Arlington. If you satisfy your language requirement otherwise, consult the advisor for ways to satisfy this computer competency requirement. The department advisor must certify completion of this requirement.

History Faculty

Chair

Professor Fairbanks

Professors

Demhardt, Green, Kyle, Palmer, Philp, Richmond, Rodnitzky

Associate Professors

Adam, Cawthon, Cole, Dulaney, Garrigus, Goldberg, Haynes, Jalloh, Maizlish, Morris, Narrett, Reinhardt, Saxon, Treviño

Assistant Professors

Babiracki, Davis-Secord, Rose

Professors Emeritus

Kerr, Lackner

The Department of Linguistics and TESOL

403 Hammond Hall · Box 19559 ·
817-272-3133
ling.uta.edu

Overview

Linguistics is the discipline that studies the structures, acquisition, and histories of human languages around the world. Linguists are not, then, principally people who know many languages, but rather people who investigate how a language is organized and what features all languages exhibit.

The Department of Linguistics and TESOL at UT Arlington is especially concerned with the study of minority, often endangered, languages. The curriculum offers students enriching insight into the cultural diversity represented in the more than 6,000 living languages currently known on the planet. The department also presents current approaches to the teaching of English to speakers of other languages.

The study of linguistics prepares students for a variety of careers, among them teaching English to speakers of other languages in the United States and abroad, brand naming (lexicon work), information and intelligence analyst, language policy, forensic linguistics and the law, computer analysis of language, language education, and graduate study in linguistics. Above all, students in the Department of Linguistics and TESOL are made especially aware of the complex world in which we live by studying a universal and most definitive human experience: language.

Requirements for a Bachelor of Arts Degree in Linguistics

English

Six hours of composition

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

The Liberal Arts Elective chosen by Linguistics majors should be one course chosen from this list of courses, to satisfy prerequisites elsewhere in the major: PHIL 1301 or PHIL 3321.

Political Science

2311, 2312.

History

1311, 1312.

Mathematics

Six hours (MATH 1301 or higher).

Science

Eight hours in a single lab science (biology, chemistry, geology, or physics).

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Social/Cultural Studies

The Social and Cultural Studies Requirement will be satisfied by designated courses which have been approved by the Undergraduate Assembly. For a list of approved courses, contact the University Advising Center or the student's major department.

Oral Communication

Students majoring in Linguistics demonstrate competency in oral communication by successfully completing LING 3345. The department advisor must certify completion of this requirement.

Computer Use Competency

Students majoring in Linguistics demonstrate competency in computer use by successfully completing the sophomore level of a Foreign Language course when taken at UT Arlington or by taking LING 4330. If neither of these conditions are met, consult the advisor for ways to satisfy this computer competency requirement. The department advisor must certify completion of this requirement.

Electives

Sufficient number of hours to complete the total hours required for a degree.

Major

Three hours of linguistics courses at the 2000 level; 3311, 3330, 3340, 4370; either 3345 or PHIL 2311; either 4301 or 4303; 12 additional hours of linguistics courses at 3000/4000 level. The 12 additional hours of linguistics courses at the 3000/4000 level may include linguistics courses offered by other departments, with approval of the department advisor, provided those courses do not satisfy either the Enhanced Language Requirement or the Minor. Under no circumstances can courses used for the Enhanced Language Requirement or Minor be used to satisfy requirements for linguistics major courses.

Service-Learning Requirement

This will be satisfied by the student enrolling in and earning at least a 2.0 in three hours of credit from a departmental course designated as "service-learning." A course may satisfy both the service-learning requirement and the hours requirements for the major. (For example, LING 3311 if taught as service-learning could satisfy the major requirement and the service-learning requirement.) The Department will maintain a list of courses and section numbers by semesters/year (i.e., Fall 2010) for verification of this requirement, and the department advisor must certify completion of this requirement.

Enhanced Language Requirement

The enhanced language requirement consists of coursework that covers the first year, second year, and third year levels of instruction in a single language. This requirement is equivalent of three years of language instruction, up to and including six hours at the 3000-level in a single language, where that language is not English and is not the student's home language. Classical, modern, signed or indigenous (for example, Native American) languages are all

permissible languages to satisfy this requirement.

Minor

18 hours in an allied field (psychology, anthropology, philosophy, education, computer science, classical/modern languages, or another field approved by the undergraduate advisor. A student may choose to use the same 18 hours to satisfy simultaneously the enhanced language requirement and the minor requirement.

Electives

Sufficient to reach the total hours required for the degree.

Total
120 hours, at least 36 of which must be 3000/4000 level.

Requirements for a Minor in Linguistics

All undergraduate students who elect to minor in linguistics must take the following two courses:

LING 2301: Introduction to the Study of Human Language and-
LING 3311: Introduction to Linguistic Science

Linguistics minors must also take at least one of the following courses:

LING 3330: Phonetics and Phonology or-
LING 3340: Grammar and Morphology

Linguistics minors must take one course at the 4000-level with a LING prefix.

The remaining six hours of the minor may include any undergraduate level course bearing the LING prefix in order to meet the total number of required hours (18). Students intending to pursue graduate study in linguistics should, however, follow a course program that includes these courses as part of their minor: LING 2301, 3311, 3330, and 3340.

Requirements for an Undergraduate Certificate in TESOL

Students interested in receiving theoretical and practical training in Teaching English to Speakers of Other Languages (TESOL) are encouraged to consider this five-course certificate program. The Undergraduate Certificate in TESOL offers a sequence of courses which introduces linguistics, second language acquisition, and methods and materials in TESOL instruction, paired with the an internship required to consist of 60 hours of volunteer ESL/literacy teaching in a local community service organization. Students take 3311, 4327, 4353, 4354, and 4395. Ideally, students should start the sequence with 3311 and use 4395 as the final course in this sequence. This certificate is ideal for students interested in earning a credential to increase employment opportunities, such as teaching English abroad. This certificate can be paired with a bachelor's degree in another discipline. Students who are interested in earning the BA in Linguistics with the Undergraduate Certificate in TESOL may apply the 4000 level courses required by the certificate to the degree requirement of 12 hours at the 3000/4000 level. This optimal sequencing will allow students to graduate with a BA in Linguistics and an Undergraduate Certificate in TESOL without adding additional hours to their degree requirements. Contact the Undergraduate

Advisor for more information on this program.

Linguistics and TESOL Faculty

Chair

Associate Professor Fitzgerald

Professors

Edmondson, Silva

Associate Professor

Fitzgerald, Stvan

Assistant Professors

Kilpatrick, Sabbagh, J. Witzel

Senior Lecturers

N. Witzel

Professor Emeritus

Burquest, Longacre

The Department of Military Science

College Hall · Box 19005 · 817-272-3281
www.armyrotc.uta.edu

Purpose

The ROTC program at The University of Texas at Arlington offers a unique opportunity for quality students to assess and develop their leadership skills. A wide variety of settings are provided to expose students to the styles, techniques, and tools of leadership. It also develops college-educated officers for the active Army and the reserve components (U.S. Army Reserve and Army National Guard). This affords the student the opportunity to pursue either a civilian or a military career after completing college.

Programs Available

General Information

Classroom: Examine theory, principles and techniques. Review leadership from a historical perspective through case studies and presentations. Communications skills emphasized.

Lab: Practical application of theory and opportunity for each student to be assessed. Immediate feedback provided enabling students to build on the experience gained. Individual skills and team-building emphasized.

Corps of Cadets: Leadership positions assigned according to demonstrated individual progress. Provides a forum for individual growth by working within a structured organization. Emphasis on counseling, coaching, mentorship, and coordination.

Field Training: A unique opportunity to gain experience under stressful and challenging situations. Students are placed in environments to test their abilities and reactions in leading small groups. Emphasis on decision-making, endurance, and reaction under stress to build self-confidence.

Simultaneous Membership Program: An opportunity to serve in a National Guard or Reserve unit as an officer trainee while participating in ROTC and attending UT

Arlington. Emphasis on planning and organizing. Programs tailored to meet individual needs.

Army Schools: Develop skills through exposure to other students and soldiers from around the country by attending Airborne, Air Assault, or other schools. Emphasis on increased experience.

Leadership Development Assessment Course: Five weeks of high-intensity training with students from across the nation, designed to evaluate individual leadership potential. Emphasis placed on evaluation/development of the individual. Student receives pay. Travel, lodging and most meal costs are paid for by the Army.

Leadership Training Camp: A five-week summer camp conducted at an Army post. The environment is rigorous and stresses leadership, initiative and self-discipline. No military obligation incurred. The student receives pay. Travel, lodging and most meal costs are paid for by the Army.

Four-Year Program: The traditional program of Army ROTC is a program of instruction which extends over four years of college. The four-year program is divided into two phases-a two-year basic course and a two-year advanced course. The basic course is normally taken by students during their freshman and sophomore years. The purpose of the basic course is to introduce students to general military subjects and leadership principles. There is no military obligation incurred for attending the basic course.

The student who wishes to enter the advanced course, normally taken during the junior and senior years, must apply for it; must meet eligibility requirements including a physical examination; and must sign an agreement to complete the last two years of Army ROTC and accept a commission as a U.S. Army Officer. Students auditing courses or students not eligible for commissioning into the Army will receive P/F grades only.

Two-Year Program: This program is offered for students who have had two years of college remaining to graduate. Students must meet ROTC advanced course eligibility requirements. Prior military service, JROTC experience, and attendance at the Leadership Training Camp (LTC) are some of the ways to meet ROTC advanced course enrollment eligibility.

Minor in Military Science

Military science may be used as a minor course of study in many degree programs at The University of Texas at Arlington.

To be eligible, the student must:
a. be enrolled in the ROTC program,
b. receive acceptance of military science as a minor from his/her major degree department,
c. successfully complete with a grade of B or better four of the following: MILS 3341, MILS 3342, MILS 4341, MILS 4342, or MILS 4391,
d. successfully complete 6 additional military science hours with a grade of B or better of any level (MILS 0180 can be repeated to meet this requirement),
e. successfully complete the Army's Leader Development and Assessment Course offered annually in the Summer, and,
f. meet all Army prerequisites to earn a commission as an Army officer upon graduation.

Scholarships

The U.S. Army Scholarship Program provides an excellent way for young men and young women to obtain assistance in financing a college education. Every scholarship

provides for payment of all expenses incurred for fees and tuition, an allowance for books and supplies, and up to $400 a month for up to 10 months per year. There are scholarships offered in all four years with payments ranging from one to four years. Initial application may be made during the student's senior year in high school or freshman year in college. Each year more scholarships are added to the program. These scholarships are merit based and are not contingent on financial need. All students are encouraged to make application through the Military Science Department.

Military Science Faculty

Chair

Lieutenant Colonel Alba

Adjunct Professors

Alexander, Deakyne, Hoelscher, Kirschner, Peebles, Smith, Somogye

Instructors

Carrasco, Decker, Pailliotet

The Department of Modern Languages

230 Hammond Hall · Box 19557 · 817-272-3161
langlab.uta.edu

Overview

The Department of Modern Languages (MODL) offers courses in Arabic, Chinese, French, German, Portuguese, Russian, and Spanish.

MODL offers a Bachelor of Arts in French, German, Russian, or Spanish as well as certificate programs in translation. At the graduate level, MODL offers a Master of Arts in Modern Languages with concentrations in French or Spanish. The department also offers minors in French, German, Russian, and Spanish, as well as area studies and other options.

Learning other languages has always formed a critical part of a well-rounded education. In today's global economy, the ability to communicate in languages other than one's own has become an increasingly valuable asset sought after by employers across the public and private sectors. Our substantive programs prepare students for research, translation, literary studies, linguistic studies, teaching, and business.

The goal of language study is to develop deep translingual and transcultural competence. In view of these aims, MODL provides a full range of language offerings from beginning to advanced courses in a variety of languages from around the globe. In addition to development in the four basic language skills -- speaking, listening, reading, and writing -- a major aim is to gain understanding of the diversity of human culture as represented in several of the world's languages, literatures, and other cultural media.

Ultimately, these aims contribute to the development of informed and capable communication and interaction with educated native speakers of the target language as well as the ability to reflect on the world and oneself through the lens of other languages and cultures.

Criteria for Admission to a Major in the Department of Modern Languages

In addition to satisfying the entrance requirements for the College of Liberal Arts, prospective majors in the Department of Modern Languages must meet the following criteria:

- A 3.0 GPA is required in the 1441-2314 Modern Language sequence, or a grade of B on the Modern Language placement test, or approval of the departmental advisor.
- After admission to the Modern Language major, students must maintain a 2.75 GPA in major classes.

Requirements for a Bachelor of Arts Degree in French, German, Russian, or Spanish

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing.

Political Science

2311, 2312.

History

1311, 1312.

Mathematics

Six hours (MATH 1301 or higher).

Science

Eight hours in a single lab science (biology, chemistry, geology, or physics).

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Social/Cultural Studies

Three hours. The Social and Cultural Studies requirement will be satisfied by designated courses which have been approved by the Undergraduate Assembly. For a list of approved courses, contact the University Advising Center or the departmental advisor.

Electives

Sufficient number of hours to complete the total hours required for a degree.

Major

1441, 1442, 2313, 2314, or equivalent; plus 24 hours at 3000/4000 level in the major language field, at least nine of which must

be at the 4000 level. Of these 24 hours, specific course requirements by language are listed below:

French - FREN 3311, 3312, 3315

German - GERM 3313, 3314

Spanish - SPAN 3314, 3315, 3319 (Native or heritage speakers must take SPAN 3304, 3305, 3315, 3319)

Minor

18 hours, at least six of which must be 3000/4000 level. For a minor in French, German, Russian, or Spanish, see below.

Electives

Sufficient to reach the total of hours required for the degree.

Total

120 hours, at least 36 of which must be 3000/4000 level.

Requirements for a Minor in French, German, Russian, or Spanish

A minor in French, German, Russian, or Spanish consists of 19 semester hours (excluding 1441), at least nine of which must be 3000/4000 level.

Options

The following options may be selected, but courses listed under options do not substitute for courses specified by number in the basic degree plan above.

Dual-Language Degree with Optional Area Studies Concentration

Students wishing to earn a degree in two languages may choose this option. Requirements are 18 upper-level credit hours (with nine at the 4000 level) in each language. There is no minor with this option. Each program of study includes courses required in each language. Please consult with an advisor. In addition, students may choose a concentration of area studies: European Area Studies for those studying any combination of French, German, Russian, and Spanish or American Studies for those studying French and Spanish. For the area studies concentration, students will choose 12 hours of approved courses in other departments. Please consult the Undergraduate Advisor for information on the approved area studies courses.

Teacher Certification

Students wishing to take a Bachelor of Arts Degree in Modern Language with Secondary Teacher Certification must complete 24 hours of courses in the language, at the 2000 level and above. Eighteen of these hours must be at the 3000 or 4000 level. In addition, each language requires specific courses (counted toward the overall requirement):

German: GERM 3313 or 3314, 4339
Spanish: SPAN 3314*, 4339
French: FREN 3315, 4339

*Native/Heritage Spanish speakers must take SPAN 3304 and SPAN 3305 in place of SPAN 3314.

Students should consult the College of Education for information concerning

Teacher Certification and other specific requirements.

Latin American Studies

(Bachelor of Arts Degree in Spanish with a concentration in Latin American studies)

Political Science 3316.

History 4365, 4366, 4367.

Economics 4321, 4322 (recommended).

Major: Spanish.

Post-Soviet and East European Studies

(Bachelor of Arts Degree in Russian with a concentration in area studies)

Political Science or History 4362*.

History 4359*, 4360*.

English 3301*, 3306*.

Major: Russian, plus selected Russian area courses from the following: 3301, 3306, 3310, 3311, 3333, 4302, 4303, 4334, 4335, 4359, 4360, 4361, 4362, and 4365.

*Other courses approved by the major advisor may be substituted if these designated courses are taken for credit in Russian language.

Medieval and Early Modern Studies Minor

The Medieval and Early Modern Studies minor fosters interdisciplinary study of the Middle Ages and the Early Modern Era, encouraging students to explore and connect topics in language, literature, history, art, and philosophy.

Students seeking to minor in Medieval and Early Modern Studies should first consult with advisors in their departments or programs for approval of the minor, then with the Director of the Minor in Medieval and Early Modern Studies. The minor consists of six courses (18 hours total; six hours upper level) selected from courses in Art History, English, History, Modern Languages (French, German, and Spanish), and Philosophy. No more than nine hours to be completed within any single discipline. Students should consult the catalog or visit http://www.uta.edu/libarts/mems/index.html for more information.

Intensive Language Program

Students with no previous experience or courses in a modern language may choose to begin French, German, Spanish, or Russian by enrolling in the Intensive Program, and may complete Levels I and II (8 credit hours), or Levels III and IV (6 credit hours) of the chosen language in the Fall, Spring, or Summer sessions. Students may also choose to fulfill their language requirement by enrolling in Arabic, Chinese, and Portuguese. These classes may not be offered every semester or every summer. Check with the Department of Modern Languages for available courses. Students are cautioned to take these courses prior to their senior year because of the possibility of enrollment limitations.

BBA in International Business/Modern Language

In cooperation with the Department of Modern Languages, the School of Business Administration offers a Bachelor of Business Administration with dual concentrations in international business and a modern language. The BBA in International Business

offers concentrations in French, German, Russian, or Spanish. In addition to 26 hours in a modern language with an additional six hours of modern language electives highly recommended, students in this program get a solid foundation in business courses, including accounting, economics, finance, management, marketing, and information systems. Students are encouraged to include six hours of degree specific language electives.

Certificate in Spanish Translation

Students interested in receiving theoretical and practical training in Spanish-English and English-Spanish translation are eligible to apply to the Department of Modern Languages for this 15-hour certificate program in translation, localization, computer-assisted translation, and translation theory. Topics to be covered by coursework in the Certificate Program include medical, business, technical, scientific, legal, and literary translation. To be admitted to the program, students must demonstrate writing proficiency in both Spanish and English. Students should also have completed SPAN 3305 (Spanish for Heritage Speakers II) or SPAN 3314 (Advanced Spanish Grammar), and SPAN 3315 (Composition through Literature), or have consent of the department. Once in the program, students begin by taking SPAN 3340 (Introduction to Translation). After completing this class with a grade of B or better, students must take SPAN 4341 (Business and Legal Translation) and SPAN 4342 (Medical, Scientific and Technical Translation). SPAN 4341 and SPAN 4342 cannot be applied toward the B.A. in Spanish, but can be taken as Liberal Arts electives. To receive the certificate, students are also required to pass an Exit Examination in translation. In order to be eligible to take the Exit Examination, students must pass SPAN 4341 and SPAN 4342 with a grade of C or better. The Exit Examination in translation may only be taken once.

Certificate in Localization and Translation (French, German, Russian)

In this five-course certificate program students study the processes of localization and develop specialized skills in translation for future employment in the language services industry. Localization adapts language, texts, products, and websites to the locale for which they are intended. By using specialized translation memory software and simulating a collaborative work environment, students become conversant with the tools and procedures required for twenty-first century translation work. Extensive practice in translating a variety of oral and written documents provides the skills to work in business, non-profit, and academic situations. Three translation and localization courses and two culture courses comprise the certificate. Students in French take FREN 3320, 3321 twice, one of the following 3000 level courses: 3310, 3311, 3312, 3316, 3318 and one of the following 4000 level courses: 4328, 4334, 4335, 4338. Students in German take GERM 3310, 3311 twice, 3313, and 4334 or 4335. Russian students take RUSS 3310, 3311 twice, 3333, and 4362. All courses can be used toward fulfilling the requirements for a major in French, German, or Russian. A minimum of two years (four semesters) is required for this program.

Dual-Language Certificate in Localization and Translation (French-German, German-Russian, Russian-French)

In this eight-course certificate program students study the processes of localization

and develop specialized skills in translation in two languages. One beginning course (GERM 3310/FREN 3320/RUSS3310) and one advanced course (GERM 3311/FREN 3321/RUSS 3311) in localization and translation are required in each language. Four additional culture courses (two in each language) are also required: for French one of the following 3000 level courses: FREN 3312, 3316, 3318 and one of the following 4000 level courses: FREN 4328, 4334, 4335, 4338; for German GERM 3313 and 4334 or 4335; for Russian RUSS 3333 and 4362. A minimum of two years (four semesters) is required for this program. For more information see the localization and translation advisor in French, German, or Russian.

Language Acquisition Center

The Department of Modern Languages maintains a fully equipped audio, video, and computerized language laboratory on the third floor of Trimble Hall. CDs, DVDs, audio tapes, video tapes, computerized language software, organized additional instruction, and tutoring are used as supplemental modes of assistance in the language acquisition process.

Credit by Examination and Placement Tests

Spanish, French, and German. Students with one year of background in the language they will study are strongly recommended to take an advanced placement examination for placement at the appropriate level. Students wishing to earn credit by examination for any of the first four (1441, 1442, 2313, 2314) levels of French, German, or Spanish must present an official score received on one of two nationally administered examinations recognized by the department: (1) Advanced Placement Examination of the College Entrance Examination Board (CEEB), or (2) College-Level Examination Program (CLEP) of the CEEB. At UT Arlington the examinations will be administered by the Testing Services Office of Counseling and Career Development on dates to be announced. Native or heritage speakers in the French, German, or Spanish program must take either the CLEP or the CEEB exam, as described above.

Russian. Non-native speakers of Russian with previous exposure to the language, who intend to enroll in Russian courses at UT Arlington, may be eligible to take a placement test at the discretion of the department. Native or heritage speakers intending to major or minor in Russian must take the Russian placement test.

Arabic, Chinese, and Portuguese. Non-native speakers of Arabic, Chinese, or Portuguese with previous exposure to the language, who intend to enroll in courses in these languages at UT Arlington, may be eligible to take a placement test at the discretion of the department.

Placement tests for Russian, Arabic, Chinese and Portuguese are administered on site in the Department of Modern Languages and not offered by The Testing Services Office. For more information, contact the Department of Modern Languages. Testing fees may apply.

Study Abroad

Students should give serious consideration to the unique learning experience of studying abroad. Students wishing to study for a summer, a semester, or a year may obtain UT Arlington credit, continue with their financial aid, and receive scholarship

aid to attend any UT Arlington-approved program for Arabic, Chinese, French, German, Portuguese, Russian, or Spanish.

Summer Study: The department offers several opportunities for gaining credit while studying abroad. Regular programs are offered which provide opportunities for summer study in various countries, including France, Mexico, Spain, and Russia. All arrangements must be made through the department.

Competence in Computer Use

Students majoring in French, German, Russian, or Spanish may demonstrate competency in computer use by:

- passing CSE 1301 (or equivalent); or
- passing any 1441, 1442, 2313 or 2314 FREN, GERM, RUSS or SPAN course(s) in residence at UT Arlington; or
- passing the University computer competency examination; or
- passing any other course approved by the Undergraduate Assembly for this purpose.

Competence in Oral Presentations

Students majoring in French, German, Russian, or Spanish may demonstrate competence in oral presentations by:

- taking and passing FREN 3315, GERM 3313, RUSS 3333, SPAN 3303, SPAN 3304; or
- passing COMS 1301, 1302 or 2305 (or equivalent); or
- passing any other course approved by the Undergraduate Assembly for this purpose.

Modern Languages Faculty

Chair

Associate Professor Elliott

Associate Professors

Choi, Conway, Israel-Pelletier, Rings, Sol, van Noort

Assistant Professors

Austin, Kania, Rueda-Acedo, Ruiz-Pérez, Seminet, Stewart, Watson

Professors Emeritus

Acker, Keilstrup, Ordóñez, Sánchez, Steinecke, Studerus, Viña

The Department of Music

101 Fine Arts Bldg. · Box 19105 · 817-272-3471
www.uta.edu/music

Overview

The University of Texas at Arlington is a member of the National Association of Schools of Music.

The Department of Music offers the Bachelor of Music degree (1) in preparation for all-level teacher certification; (2) in Performance (Brass, Keyboard, Percussion, Strings, Voice, Woodwinds); (3) in Theory; (4) in Composition; (5) in Jazz Studies; (6) with emphasis in Music/Business; (7) with emphasis in Music/Theatre; and (8) with

emphasis in Music/Media. Music students must meet all the requirements of one of these specializations to receive the Bachelor of Music degree. All degree plans leading to a Bachelor of Music degree include offerings which provide a solid foundation in music theory, history, and literature and require a concentration in a specific instrument/voice.

The art of music holds a prominent place in the historical quest to enrich and improve life through the creative arts. The desire for music is basic and universal to experience it and to express oneself through it. The mission of the Music Department is to further the quest for enrichment and to nurture beauty, knowledge, and excellence through studying and experiencing the science and art of music.

The Music Department's goals and objectives for academic and aesthetic enrichment of the university and the extended community include: (1) offering curricula leading to a baccalaureate degree that provide students with the opportunity to realize their inherent musical potential, (2) offering career options within the baccalaureate degree that recognize and tap students' special abilities and talents to make contributions of excellence in the fields of music, and (3) preparing students for graduate study and/or professional careers in music by meeting curricula criteria, performance standards, and academic expectations.

All prospective music majors must audition for proper placement in their respective performance areas and take a music theory placement test. Information concerning auditions and placement tests is available in the Music Office.

All music majors (and transfer students) are required to pass the sophomore barrier on their major instrument. Students can only attempt the barrier two times. If they fail the sophomore barrier the first time, they will receive an Incomplete and will be required to enroll in Developmental Private Lessons (MUSI 2222) the following semester. At the end of MUSI 2222, students will be required to attempt the barrier for a last time. If the student successfully passes the barrier, the Incomplete will be changed to the appropriate grade. If students do not successfully pass the barrier, they will not be allowed to remain a music major.

An audition or permission of the instructor is required for all large ensembles.

All music majors are required to enroll in a large ensemble each semester in residence. Ensembles that meet this requirement, as well as any minimum requirements for number(s) of semester in specific ensembles, are determined by each degree plan. Residence is defined as any semester that a student is enrolled in any private lesson section or enrolled in 6 or more semester hours at the university, except during student teaching or music industry studies internship.

All students are strongly urged to refer to the sections on Academic Regulations and Degree Programs in the current UT Arlington Undergraduate Catalog. Students seeking teacher certification should read the College of Education section of this catalog concerning admission to teacher education programs and state requirements for certification.

In addition to fulfilling University and the College of Liberal Arts requirements for admission to a degree program, students planning to be music majors must also fulfill the following Music Department requirements.

Students must receive a C or better in all music courses in order to graduate. If a

student does not earn a C or better, it may not count as a prerequisite for any other course.

Requirements for a Bachelor of Music Degree (In Performance, Theory, or Composition)

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing (satisfied by major).

History

1311, 1312.

Political Science

2311, 2312.

Mathematics

Six hours (level of college algebra or higher).

Science

Eight hours in a single lab science (biology, chemistry, geology, or physics).

Modern and Classical Languages

1441, 1442, 2313, and 2314 or equivalent.

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts (satisfied by major).

Social/Cultural Studies

The three-hour social and cultural studies requirement will be satisfied by designated courses which have been approved by the Undergraduate Assembly. For a list of approved courses, contact the University Advising Center or the Music Department (MUSI 2300 recommended).

Major

1185, 1186, 1325, 1326, 2185, 2186, 2302, 2325, 2326, 3308 or 3309 (Performance and Composition), 3300, 3301; eight hours performance concentration (in one instrument or voice); 1180, 1181, 2180, 2181 (keyboard concentrates must substitute four hours keyboard ensemble).

In addition

Voice Performance Option requires 3101, 3302, 3303, 3394, 4101; seven hours a cappella choir, three hours musical theatre/opera laboratory. Plus: 14 hours additional performance major; three hours 0174; 3103; 4191 (vocal literature); 4301 or 4302; plus a junior and a senior recital. [Students electing studies in pedagogy substitute the following: eight additional hours of performance concentration; four hours 3294 (vocal pedagogy I, II); four hours

4291 (vocal literature I, II); two hours 0174; 1242; 4205; plus a senior recital.]

Keyboard Performance Option requires 3294, 3295, 3302, 3303, 3394, 4301 or 4302, four hours 4291 (keyboard literature I, II); one hour accompanying, one hour any ensemble. Plus: 14 hours additional performance major; four hours 0174, three hours music elective, plus a junior and a senior recital. [Students electing studies in pedagogy substitute the following: eight additional hours of performance concentration; 1257, 1258, 2257, 2258; 3211; 4291 (group piano methods); plus a senior recital.]

Wind, String, or Percussion Performance Option requires 3302, 3303, 3394, 4301 or 4302, 4191 (wind or string instrument pedagogy) and 4191 (wind or string instrument literature); 14 additional hours performance major; 12 hours ensemble (orchestra emphasis students take eight hours orchestra, three hours string quartet, and one hour any ensemble; band emphasis students take eight hours wind ensemble or concert band, two hours any ensemble, and two hours orchestra); three hours music elective; plus a junior and a senior recital.

Theory Option requires 2227, 3302, 3303, 3326, 3390, 3391, 4205, 4350, 4351, and 4301; two hours 0174 (keyboard concentrates must substitute 4242); four additional hours performance concentration; six hours any ensemble, at least three of which must be large ensemble; plus prepare and present a senior research project in music theory in a conference setting.

Composition Option requires 2227, 3302, 3303, 3392, 3393, 3394, 4205, 4301, 4492, 4493; two hours of Seminar in Computer Aided Composition (3127 and 3128); two hours selected from 1103, 1104, 1105, 2103, 2104; two additional hours performance concentration; two hours 0174 (keyboard concentrates must substitute 3243); six hours any ensemble, at least three of which must be large ensemble; plus prepare and present a program of original works.

Total

137 or 138 hours, including a minimum of 36 hours at 3000/4000 level, at least 24 of which must be in music.

Requirements for a Bachelor of Music Degree (With Emphasis in Music/Business, Music/Theatre, or Music/Media)

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing (satisfied by major).

Political Science

2311, 2312.

History

1311, 1312.

Mathematics

Six hours (level of college algebra or higher).

Science

Eight hours in a single lab science (biology, chemistry, geology, or physics).

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts. (satisfied by major).

Social/Cultural Studies

The three-hour social and cultural studies requirement will be satisfied by designated courses which have been approved by the Undergraduate Assembly. For a list of approved courses, contact the University Advising Center or the Music Department (MUSI 2300 recommended).

Electives

Music Theatre option (three hours at the 3000/4000 level); Music Business and Music Media options (eight hours), foreign language recommended.

Major

1185, 1186, 1325, 1326, 2185, 2186, 2302, 2325, 2326, 3308 or 3309, 3300, 3301, 3394, 4390, 4391; eight hours performance concentration (in one instrument or voice); 1180, 1181 (keyboard concentrates substitute two hours keyboard ensemble).

In addition

Music/Business Option requires two additional hours performance concentration; 4323; six hours any ensemble, at least three of which must be large ensemble.

Plus

10 hours (9 at the 3000/4000 level) selected from 1302, 1304, 2227, 2301, 3125, 3212, 3302, 3303, 3308, 3309, 3390, 3391, 3392, 4300, 4301, 4302, 4324, 4325, 4326.

Plus

18 hours (nine of which must be 3000/4000 level) selected from Business or Communication pending approval by the Music Business Area Coordinator.

Music/Theatre Option requires four additional hours performance concentration; 2180, 2181, 4205 or two hours 0174 (keyboard concentrates substitute four hours 0175); 3101, 4101, 4324; six hours any ensemble (may include THEA 0181); four additional hours choral ensembles or musical theatre/opera laboratory.

Plus

15 hours (nine of which must be 3000/4000 level) selected from Theatre Arts and/or Broadcast Communication as recommended by the major advisor, and three hours of Dance (see music advisor for a list of approved courses).

Music/Media Option requires 2180, 2181, or 4205 (keyboard concentrates substitute two hours of 0109 or 4205); 2227, 3125, 3308 or 3309, 4323, 4325 and PHYS 1300; six hours any ensemble, at least three of which must be large ensemble. Additionally, students must take either MUSI 4326, ART 3385 or THEA 3303. Students must also choose one

course from the following: MUSI 2301, 3392, 3302, 3303, or 3390.

Plus

9 hours (three of which must be 3000/4000 level) selected from Art, Business, Communication, and/or Electrical Engineering pending approval by the Music Media Area Coordinator.

Total

132 or 133 hours, including a minimum of 36 hours at 3000/4000 level, at least 24 of which must be in music.

Requirements for a Bachelor of Music Degree (With Jazz Studies Option)

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing (satisfied by major).

Political Science

2311, 2312.

History

1311, 1312.

Mathematics

Six hours (level of college algebra or higher).

Science

Eight hours in a single lab science (biology, chemistry, geology, or physics).

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts. (satisfied by major)

Social/Cultural Studies

The three-hour social and cultural studies requirement will be satisfied by designated courses which have been approved by the Undergraduate Assembly. For a list of approved courses, contact the University Advising Center or the Music Department (MUSI 2300 recommended).

Electives

Eight hours (foreign language recommended).

Major

1101, 1185, 1186, 1325, 1326, 2185, 2186, 2302, 2325, 2326, 3125, 3180, 3308 or 3309, 3225, 3226, 3300, 3301, 3392, 3394, 4300, 4302, 4323, 4390, 4391; fourteen hours performance concentration; 1180, 1181, 2180, 2181 (keyboard concentrates substitute two hours keyboard ensemble and two hours small jazz ensemble); seven

hours large jazz ensemble, two hours small jazz ensemble; three hours music elective.

Total

132 or 133 hours, including a minimum of 36 hours at 3000/4000 level, at least 24 of which must be in music.

Requirements for a Bachelor of Music Degree (In preparation for Teacher Certification)

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing (satisfied by major).

History

1311, 1312.

Political Science

2311, 2312.

Mathematics

Six hours (level of college algebra or higher).

Science

8 hours in a single lab science (biology, chemistry, geology, or physics).

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts. (satisfied by major)

Social/Cultural Studies

The three-hour social and cultural studies requirement will be satisfied by designated courses which have been approved by the Undergraduate Assembly. For a list of approved courses, contact the University Advising Center or the Music Department (MUSI 2300 recommended).

Major

1185, 1186, 1325, 1326, 2185, 2186, 2325, 2326, 3308 or 3309, 3300, 3301; eight hours performance concentration (in one instrument or voice); 1180, 1181, 2180, and 2181 (keyboard concentrates refer to appropriate options below for substitute hours), LIST 4343, EDUC 4352, and EDUC 4647.

In addition

All-Level Instrumental Option (Band Emphasis) 1103, 1104, 1105, 1106, 1107, 2103, 2104, 2112, 3211, 3213, 4308, 4301 or 4302, 4211, 4213, 4215, 4216; 3200, 3212; keyboard concentrates take four hours 0109 (see Major); ensembles (three hours marching band; four hours wind symphony, symphonic band, or symphonic winds); six additional hours performance concentration; plus a senior half recital.

All-Level Instrumental Option (Orchestra Emphasis) 1105, 2101, 2102, 2104, 2112, 3211, 3213, 4308, 4301 or 4302, 4211, 4213, 4215, 4216, 3294, 4303; two hours of 3191 (each hour on a different string instrument other than principal instrument); keyboard concentrates take four hours 0109 (see Major); ensembles (seven hours orchestra); six additional hours performance concentration; plus a senior half recital.

All-Level Choral Option requires 2101, 2102, 3103, 2103, 2104, 2112, 3101, 3211, 3214, 4101, 4309, 4301, 4211, 4214, 4215, 4216; six hours a cappella choir, one hour musical theatre/opera laboratory; six additional hours performance concentration; plus a senior half recital. In addition, voice concentrates take two hours 0174 and 4205; keyboard concentrates take two hours 0109 and four hours 0175 (see Major).

Total Semester Hours Required

133, including a minimum of 36 hours at 3000/4000 level, at least 24 of which must be in music.

Teacher Certification

Students interested in Texas Teacher Certification should consult the College of Education section of this catalog for the most recent changes in requirements regarding admission to Teacher Education, completion of University programs in preparation for certification, and eligibility for certification after graduation.

Requirements for a Minor in Music

Eighteen hours of music, six hours of which must be 3000/4000 level.

Oral Communication and Computer Use Competency Requirements

Students majoring in music are required to demonstrate computer use and oral communication competencies. Computer use proficiency can be demonstrated by (a) successful completion of MUSI 3394; or (b) successful completion of CSE 1301 or INSY 2303; or (c) passing the University computer use competency exam. Oral communication proficiency can be demonstrated by (a) successful completion of MUSI 3308 or 3309; or (b) successful completion of COMS 1301, 2305, 3302 or 3315. Students should discuss these options with their undergraduate advisor who may also provide a list of other courses approved by the University to meet these requirements.

Music Faculty

Chair, Professor

Burton

Professors

Ling-Tam, Powell, Morrow

Associate Professors

Bogard, Cavanagh, Chave, Espinosa, Hunt, Ishii, Jessup, Kenaston-French, Kim, Lange, Solomons, Stotter, Varner

Assistant Professors

Atkinson, Cho, Evans, Frisof, Grogan, Luttrell, Pool, Walvoord

Senior Lecturers

Bubert, Hayes

Professors Emeritus

Ebensberger, Moorer, Stokan

The Department of Philosophy and Humanities

305 Carlisle Hall · Box 19527 · 817-272-2764
www.uta.edu/philosophy

Overview

A major in philosophy is built on the central texts in the history of Western thought. Philosophy focuses on the perennial problems raised by the encounter of human beings with their history, culture, and the world. It emphasizes methods of analysis and clarity of argumentation. Students who major in philosophy have the broadest possible preparation in the liberal arts.

Students who complete a major in philosophy are prepared to enter either graduate programs or the world of work. In addition to providing vocational skills and a solid foundation for graduate work in the discipline, a major in philosophy constitutes appropriate and strong preparation for graduate work in other academic disciplines as well as in professional programs in a broad variety of fields. The Department of Philosophy and Humanities is prepared to work with students who are interested in postgraduate professional education to assure that their preparation meets disciplinary and/or professional criteria and expectations in areas including law, business administration, and theology. The faculty of the Department of Philosophy and Humanities also work with advisors in the Health Professions Advising Office of the College of Science to ensure that philosophy majors pursuing a pre-medical curriculum are kept abreast of required and recommended courses outside the major.

Requirements for Admission to a Major in Philosophy

Students should have completed 30 hours of core with 30 hours at UT Arlington, or 40 hours of core with 12 hours at UT Arlington with an overall GPA greater than 2.0. Before being accepted into the major in philosophy, students must also have passed a course in symbolic logic (PHIL 2311 or the equivalent). Students may be accepted as pre-philosophy majors if the above standards are not met.

Requirements for a Bachelor of Arts Degree in Philosophy (Pre-Professional Track)

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of

Liberal Arts, or fine arts or philosophy, or technical writing.

History

1311, 1312.

Political Science

2311, 2312.

Modern and Classical Languages

1441, 1442, 2313, and 2314, or equivalent.

Mathematics

Six hours (MATH 1301 or higher; credit will not be given for both MATH 1301 and MATH 1302).

Science

Eight hours in a single lab science (biology, chemistry, geology or physics).

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Social/Cultural Studies

Three hours from designated courses in archaeology, classical studies, communication, economics, history, humanities, linguistics, political science, social or cultural anthropology, social/political/cultural geography, social psychology, sociology and women's studies or other courses which have been approved by the Undergraduate Assembly. (See the undergraduate philosophy advisor for a list of recommended courses).

Electives

Sufficient to give the total number of hours required for a degree.

Major

33 hours of philosophy to include 1310 or 2300 and 2311; 3301; 3303; 3307; at least one course from the "metaphysics and epistemology" group (3318, 3321, 4385, 4386, 4388, 4389); at least one course from the "value theory" group (2312, 2313, 3316, 3319, 3320, 3330, 4387); and nine other advanced hours-with a total of at least six hours at the 4000 level (including any 4000-level "metaphysics and epistemology" or "value theory" courses, but not including 4394). In addition, students in the pre-professional track must take 4394 and complete a senior thesis sometime during their final year.

Minor

18 hours, at least six of which must be 3000/4000 level.

Total

120 hours, at least 36 of which must be 3000/4000 level.

Requirements for a Bachelor of Arts Degree in Philosophy (General Track)

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing.

History

1311, 1312.

Political Science

2311, 2312.

Modern and Classical Languages

1441, 1442, 2313, and 2314, or equivalent.

Mathematics

Six hours (MATH 1301 or higher; credit will not be given for both MATH 1301 and MATH 1302).

Science

Eight hours in a single lab science (biology, chemistry, geology or physics).

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Social/Cultural Studies

Three hours from designated courses in archaeology, classical studies, communication, economics, history, humanities, linguistics, political science, social or cultural anthropology, social/political/cultural geography, social psychology, sociology and women's studies or other courses which have been approved by the Undergraduate Assembly. (See the undergraduate philosophy advisor for a list of recommended courses).

Electives

Sufficient to give the total number of hours required for the degree: In consultation with the undergraduate philosophy advisor and in light of individual aims and interests, students in the general track are to select electives concentrated primarily in one or two areas of *secondary emphasis*-for example, business, classical studies, cognitive science, computer science engineering, history, humanities/liberal arts, mathematics, or political science.

Major

27 hours of philosophy to include 1310 or 2300 and 2311; 3307; and 18 additional hours (12 advanced hours, with at least six hours at the 4000 level).

Optional Minor

General-track students may pursue a minor after filing a statement of intent with their undergraduate advisor. Requires 18 hours, at least six of which must be 3000/4000 level.

Total

120 hours, at least 36 of which must be 3000/4000 level.

Requirements for a Bachelor of Arts Degree

in Philosophy (Pre-Law Option)

Students interested in the Pre-Law Option must complete the requirements for the Pre-Professional Track degree in philosophy, while selecting their elective course work in consultation with the Philosophy/Pre-Law faculty advisor.

Requirements for a Bachelor of Arts Degree in Philosophy (Mind, Language, and Cognition Option)

Students interested in the Mind, Language, and Cognition (MLC) Option must complete the requirements for the General Track degree in philosophy, with a minor in linguistics, and psychology as their area of *secondary emphasis* for elective course work. Although specific major, minor, and elective courses should be selected in consultation with the MLC advisor in philosophy, typical courses include LING 2301, LING 3311, LING 3330, LING 3340, LING 4317, LING 4389 (Semantics), PHIL 2300, PHIL 2311, PHIL 3307, PHIL 3317, PHIL 3318, PHIL 3321, PHIL 4385, PHIL 4386 or PHIL 4388 (Hermeneutics), PHIL 4389 (Mind), PSYC 1315, PSYC 2441, PSYC 2442, PSYC 3431, PSYC 4332, and PSYC 4333. (Students who intend to apply to graduate school may elect to complete the requirements for the Pre-Professional Track degree in philosophy, with the minor in linguistics and elective course work in psychology.)

Requirements for a Bachelor of Arts Degree in Philosophy (Philosophy and Classics Option)

Students interested in the Philosophy and Classics Option typically complete the requirements for the General Track degree in Philosophy, with a minor in Classical Studies, and are required to fulfill their language requirement with Greek; with advisors' approval, students may choose to substitute Latin, French or German. Specific major, minor and elective courses should be selected in consultation with the philosophy undergraduate advisor and the director of Classical Studies. (Students who intend to apply to graduate school may elect to complete the requirements for the Pre-Professional Track degree in Philosophy, with the minor in Classical Studies, and the language hours in Greek.)

Requirements for a Minor in Philosophy

A minor in philosophy requires 18 semester hours, at least six of which must be 3000/4000 level.

Undergraduate Advising

All philosophy majors are directed in their program by a designated undergraduate advisor. In addition, the following special advisors are available:

Graduate Work in Philosophy: Majors who are interested in graduate work in philosophy should consult the departmental graduate advisor during their junior year.

Pre-Law: Majors who intend to apply to law school will find courses in logic, philosophy of law, political philosophy, and ethics particularly useful. Interested students

should consult the Philosophy/Pre-law faculty advisor for assistance in course selection and application procedures.

Philosophy/Business Administration Minor: It is possible to combine the philosophy major with a business administration minor in preparation for admission to the UT Arlington MBA program. (See Liberal Arts Major/Business Administration Minor section in the introduction of the College of Liberal Arts.) The Philosophy/Business Administration faculty advisor will assist students in coordinating their program and meeting admissions requirements either at UT Arlington or other schools.

Pre-Theological: Majors who plan to enter a school of theology should consider a minor in classics and foreign language preparation in Greek and/or Latin. Electives in ethics and philosophy of religion are particularly recommended. Interested students should consult the Philosophy/Pre-ministerial faculty advisor for additional assistance.

Pre-Medical: A departmental faculty advisor is available to assist majors who intend to apply to medical school. The major program will be coordinated with the Health Professions Advising Office of the College of Science.

Oral Communication Competency

Students majoring in philosophy may demonstrate competency in oral communication by (a) successful completion of a specific course approved by the Department of Philosophy and Humanities for this purpose, or (b) successful completion of any course from among those approved by the Undergraduate Assembly.

Computer Use Competency

Students majoring in philosophy may demonstrate competency in computer use by (a) successful completion of PHIL 3307, or (b) successful completion of any course from among those approved by the Undergraduate Assembly for this purpose, or (c) passing the University proficiency examination in computer use.

Philosophy and Humanities Faculty

Interim Chair

Associate Professor Nussbaum

Associate Professors

Baker, Burgess-Jackson, Chiasson, Reeder

Assistant Professor

Byrd

The Department of Political Science

206 University Hall · Box 19539 · 817-272-2991
www.uta.edu/pols

Overview

The goal of the political science undergraduate curriculum is to maximize students' capacities to analyze and interpret political events and governmental processes. In addition to acquiring general

knowledge about government and political behavior, students also learn the analytical skills relevant to particular political systems (their own and others'), and to problems of most immediate consequence and concern to them.

The four major objectives of the department's curriculum are to:

- Identify and describe political structures, rules, behaviors and environments which shape political action.
- Explain and employ statistical and methodological techniques to analyze information.
- Identify, comprehend, and apply comparative, theoretical, or conceptual approaches to actors and their policies.
- Develop the ability to analyze, synthesize, and evaluate political phenomena.

The major courses are designed to present a coherent portrait of the discipline. Students begin with a general introduction to national, state, and local politics followed by required courses in political methodology and political theory. Finally, students are exposed to at least four major areas of the discipline. The department also offers options for students who desire a concentration in pre-law, public policy/administration, or international studies. Students may choose any 18 hours (6 advanced) for a minor. Those who want a specialization may concentrate courses in areas of public law; policy and administration; comparative and international politics; American national government; political parties, group politics, and elections; or political theory.

The political science student is exposed to a multifaceted and highly regarded faculty, many of whom have received regional and national honors for teaching, service, and research. Upon graduation, UT Arlington political science majors are prepared to compete for a wide variety of jobs in both the private and public sectors.

Admission to Department of Political Science Degree Programs

Students should have completed 30 hours of core with 30 hours at UT Arlington, or 40 hours of core with 12 hours at UT Arlington with an overall GPA greater than 2.0. Students may be accepted as pre-political science majors if the above standards are not met.

Requirements for a Bachelor of Arts Degree in Political Science

All students who wish to earn a Bachelor of Arts degree in Political Science must complete the following coursework. In completing this coursework, they will satisfy the University's core curriculum requirements.

English

Six hours (1301 and 1302 or suitable substitutes).

Literature

Six hours of English or modern and classical languages literature at the sophomore level or above.

History

1311, 1312.

Modern and Classical Languages

1441, 1442, 2313, and 2314 or equivalent.

Political Science

2311, 2312.

Mathematics

Six hours (level of college algebra or higher; 1302 and 1308 are recommended).

Science

Eight hours in a single lab natural science (biology, chemistry, geology, or physics).

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Social/Cultural Studies

Nine hours from any combination of courses from: social or cultural anthropology; archaeology; social/political/cultural geography; economics; criminal justice; psychology; sociology; women's studies courses cross-listed with these departments and/or Introduction to Women's Studies (WOMS 2310). This fulfills the Social/Cultural studies requirement.

Electives

Sufficient to give the total number of hours required for the degree.

Major

36 hours to include 2311 and 2312; three hours in methodology (3310 or equivalent); three hours in political thought (3313, 4322, 4323, 4327, 4328, or 4329 or equivalent); and at least one course from any four of the five areas listed.

Area I Political Behavior and Processes: 3306, 3311, 3327, 4314, 4316, 4317, 4318, 4319, 4324, 4326, 4330, 4333, 4335.

Area II Comparative Politics: 3304, 3314, 3316, 3317, 3318, 3328, 4313, 4361, 4362, 4371.

Area III International Politics: 3329, 4334, 4336, 4355, 4360, 4365, 4370.

Area IV Public Law: 3330, 3331, 3333, 3334, 3335, 4331, 4332.

Area V Public Administration and Policy Studies: 3303, 3305, 3307, 3312, 4303, 4351, 4352, 4353.

Students majoring in Political Science will pursue this general course of study in the discipline AND they may declare a specific area of concentration by filing a statement of intent with the Political Science Department. The area of concentration will require that the student complete the requirements for the general degree plan while also fulfilling certain requirements for the concentration. All students will receive the B.A. in Political Science. Those completing the selected specialization will also receive recognition of completion.

The purpose of the specializations is to provide the student with a focused, systematic, and in-depth educational experience in the context of a broad liberal arts education. The areas of specialization are:

•Pre-Law: requiring a minimum of 9 hours in the Public Law area of Political Science, plus 9 hours of courses to be chosen from the following: COMM 3310, COMS 3305; CRCJ 4301, 4331; ENGL 4371; HIST 3317, 3318, 3319, 3320, 4350; PHIL 1301, 2311,

3320; SOCI 3313, 3357; BLAW 3311, 3312;
•Policy/Public Administration: requiring a minimum of 12 hours in the Policy/Public Administration area of Political Science
•International Studies: requiring a minimum of 12 hours in any combination of the Comparative Politics and International Politics areas of Political Science
•Political Behavior and Processes: requiring a minimum of 12 hours in the Political Behavior and Processes area of Political Science

Minor

18 hours, at least six of which must be 3000/4000 level.

Total

120 hours, at least 36 of which must be 3000/4000 level.

Requirement for a Minor in Political Science

A minor in political science requires 18 semester hours, at least six of which must be 3000/4000 level.

Political Science classes may be used toward the major requirements or minor requirements (at the discretion of the department offering the minor), but not both.

Teacher Certification

Students interested in Texas Teacher Certification should consult the College of Education section of this catalog for the most recent changes in requirements regarding admission to Teacher Education, completion of University programs in preparation for certification, and eligibility for certification after graduation.

Oral Communication and Computer Use Competencies

Students majoring in political science are required to demonstrate computer use and oral communication competencies. Computer use proficiency can be demonstrated by (a) successful completion of POLS 3310; or (b) successful completion of CSE 1301 or INSY 2303; or (c) successful completion of other courses approved by the Undergraduate Assembly; or (d) passing the University computer use competency exam. Oral communication proficiency can be demonstrated by (a) successful completion of specific political science courses approved by the department; or (b) successful completion of COMS 1301, 2305, 3302, or 3315; or© successful completion of other courses approved by the Undergraduate Assembly. Students should discuss these options with their undergraduate advisor who may also provide a list of other courses approved by the University to meet these requirements.

Political Science Faculty

Chair

Professor Deen

Professors

Cichock, Farrar-Myers, Gutierrez, Hekman, Ignagni, Marshall, Story

Associate Professors

Clark, Deen, Knerr, Moon, Moore, Saxe, Simowitz

Assistant Professor

Boyea, Sasley, Sledge

Professors Emeritus

Butcher, Dawson, Hamlett

The Department of Theatre Arts

144 Fine Arts Bldg. · Box 19103 ·
817-272-2650
www.uta.edu/theatre

Overview

The mission of the Department of Theatre Arts in the College of Liberal Arts at The University of Texas at Arlington is to provide a comprehensive undergraduate education through theory, practice, and research. The objectives of the department are to provide an extensive education in the theatrical profession through applied, practical experiences acquired by performance and production opportunities; to provide students an extensive application of the art, craft, and management of theatre arts; to explore the components which comprise the theatrical event and to research new theories and applications; to provide a challenging educational environment for the Theatre Arts student, characterized by shared values, unity of purpose, diversity of opinion, mutual respect, and a commitment to lifelong learning; to offer the Bachelor of Arts (B.A.) and the Bachelor of Fine Arts (B.F.A.) degree programs for Theatre Arts students and to provide courses which meet the Fine Arts core curriculum requirements of the University.

The Bachelor of Arts (B.A.) Degree Program

Liberal Arts Requirements

The Bachelor of Arts degree provides a general background in the theatre arts and liberal arts. The B.A. allows students the opportunity, through elective course work in Theatre Arts, to tailor their degree program in interest areas the student may wish to explore. Students seeking the B.A. elect additional courses chosen from the University and Liberal Arts core curricula outside the Department of Theatre Arts.

Admission

In addition to the general requirements for admission to the University, the aspiring undergraduate must meet the following requirement for admission to the Bachelor of Arts degree program:

- Participation in advisement/interview.

Transfer students follow the same entrance procedures as freshman students and should realize that acceptance into the program is determined by the Theatre Arts faculty.

Candidates for the Bachelor of Arts degree must satisfy the requirements for the University and the College of Liberal Arts.

All Theatre Arts majors shall enroll for one hour per semester in residence in THEA 0181 (Practicum) in order to graduate. A minimum of two hours and a maximum of eight hours of THEA 0181 is required. Students should see their advisor regarding practicum obligations.

For transfer students, a minimum 2.25 cumulative grade point average in all

transferring coursework is required for admission into the B.A. degree program.

For all Theatre Arts majors, a minimum 2.25 overall grade point average is required for all courses taken at UT Arlington in order to remain in the B.A. degree program. A minimum grade point average of 2.50 is required for all Theatre Arts courses taken at UT Arlington in order to remain in the B.A. degree program. Students currently enrolled at UT Arlington who wish to declare Theatre Arts as a major must have a minimum grade point average of 2.25 in overall coursework taken at UT Arlington in order to be admitted to the B.A. degree program.

All B.A. students are required to audition for each major production each semester they are enrolled, though they may choose to decline being considered for a role at the time of the audition. Production activities and Theatre Arts disciplinary rules shall be governed by a student handbook that is available to the student through the Department of Theatre Arts.

A student will be placed on departmental academic probation in the Department of Theatre Arts if her/his grade point average drops below the minimum requirements for the degree plan in which she/he are enrolled. A theatre arts student who is on academic probation is not allowed to audition for or accept an acting role or serve as a designer, stage manager or other significant production position for any of the productions during the next regular semester they are enrolled. If after a regular semester the student's grade point average returns to at least the minimum required grade point average for her/his degree plan, then the probation is removed. However, if after a regular semester the student's grade point average does not meet the minimum required grade point average, the student may be removed from the degree program and will be advised as to other degree plan alternatives, should they exist.

The Department of Theatre Arts offers limited scholarships to deserving students. Work-study positions are also available. Contact the Department of Theatre Arts for information.

Requirements for a Bachelor of Arts Degree in Theatre Arts

English

Six hours (1301 and 1302 or approved substitutes).

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing.

Modern and Classical Languages

1441, 1442, 2313 and 2314 or equivalent.

U.S. Political Science

Six hours covering U.S. and Texas constitutions (This requirement is mandated by state law and cannot be waived).

U.S. History

Six hours of U.S. History or three hours of U.S. and three hours of Texas history (This requirement is mandated by state law and cannot be waived).

Mathematics

Six hours (MATH 1301 or higher).

Natural Science

Eight hours in a single lab science (biology, chemistry, geology, or physics).

Fine Arts

Three hours from art, dance, music, architecture, or theatre arts.

Social/Cultural Studies

Three hours.

Electives

Sufficient to give the total number of hours required for degree, six hours of which must be at the 3000/4000 level.

Theatre Arts

1101, 1304, 1305, 1307, 1343.

Plus 24 upper-division hours including:

3300, 3304, 3309, 3315, 4303, 4304, plus six elective hours at the 3000/4000 level.

Total

A minimum of 120 hours, of which at least 36 must be at the 3000/4000 level.

Optional Minor in Another Discipline

B.A. Degree students may pursue a minor in another discipline after filing a statement of intent with their undergraduate advisor. Requires 18 hours, at least six of which must be at the 3000/4000 level.

Requirements for a Minor in Theatre Arts

Students who are not majoring in Theatre Arts may elect to minor in it. Twenty-two (22) hours of theatre arts courses are required. This includes THEA 1101, 1304, 1307, 1343, 3309 plus nine (9) elective hours: a minimum of six (6) of these elective hours must be at the 3000/4000 level. Students interested in theatre arts as a minor should consult a Theatre Arts Department advisor to determine the most advantageous selection of courses in light of their interests and experience. With such consultation, departmental prerequisites may be waived for the purposes of a minor.

The Bachelor of Fine Arts (B.F.A.) Degree Program

Liberal Arts Requirements

The Bachelor of Fine Arts degree is a specialized, pre-professional degree that provides a background in the liberal arts with subplans in Theatre Studies, Performance, Design, or Technical Production. The Theatre Studies Subplan provides a comprehensive study of the theatre arts, suitable for students seeking a career in teaching, directing, dramaturgy, and/or stage management. The Performance Subplan is designed for students seeking a professional career as an actor. The Design Subplan is for students

seeking a professional career as a scenic, lighting, sound or costume designer. The Technical Production Subplan is for students seeking a professional career as a technical director and/or theatre technician. Students seeking the B.F.A. elect additional courses chosen from the University and Liberal Arts core curricula outside the Department of Theatre Arts.

Admission

In addition to the general requirements for admission to the University, the aspiring undergraduate must meet the following requirements for admission to the Bachelor of Fine Arts degree program:

- Participation in advisement.
- A personal interview with a designated faculty member (all students)
- A 1,000-word written essay (Theatre Studies subplan) or an audition (Performance subplan) or a design/technical production portfolio review (Design or Technical Production subplans).
- Interview and audition and/or portfolio review (whichever is appropriate for the intended area of specialization).
- A grade point average or equivalent of at least 3.0 in all Theatre Arts course work from the student's high school or transferring college.
- For transfer students, a minimum 2.25 cumulative grade point average in all transferring coursework is required for admission into the B.F.A. degree program.
- A letter of recommendation from the student's high school theatre instructor.
- Upon acceptance by the University and the Department of Theatre Arts, an indication of area of specialization (theatre studies, performance, design, or technical production) is required.

Transfer students follow the same entrance procedures as freshman students and should realize that acceptance into the program is determined by the Theatre Arts faculty. A letter of recommendation from the student's college theatre instructor is required. If no theatre courses are transferring, a letter from the student's high school theatre instructor is required.

Candidates for the Bachelor of Fine Arts degree must satisfy the requirements for the University and the College of Liberal Arts.

All Theatre Arts majors shall enroll for one (1) hour per semester in residence in THEA 0181 (Theatre Practicum) in order to graduate. A minimum of two (2) hours and a maximum of eight (8) hours of THEA 0181 are required. The exception is for the BFA Technical Production Focus student who is required to enroll in six (6) hours of THEA 0281 (Technical Production Practicum) in lieu of three (3) hours of THEA 0181. Students should see their advisor regarding practicum obligations.

All B.F.A. students are accepted into the B.F.A. program on a probationary basis through their sophomore year. In the sophomore year, probationary B.F.A. students shall be evaluated by faculty as to whether they shall be admitted into the B.F.A. program on a regular basis. Students who are not admitted may seek advisement regarding the possibility of changing to the B.A. degree.

For all Theatre Arts majors, a minimum grade point average of 2.25 is required in overall coursework taken at UT Arlington in order to remain in the B.F.A. degree program. A minimum grade point average of 3.0 is required for all Theatre courses taken

at UT Arlington in order to remain in the B.F.A. degree program. Students currently enrolled at UT Arlington who wish to declare Theatre Arts as a major must have a minimum grade point average of 2.25 in overall coursework taken at UT Arlington, in addition to the admission requirements stated above, in order to be considered for admission into the B.F.A. degree program.

B.F.A. Theatre Studies Subplan students are required to present a formal research poster session, or an approved equivalent, of their research project completed in the course "Theatre Studies Research" during the senior year.

All B.F.A. students who elect the Performance Subplan are required to audition for each major production each semester they are enrolled and must accept roles for which they are cast, unless special permission has been obtained in advance of the audition from the Performance Subplan Chair or the Chair of the Department.

B.F.A. Design Subplan and Technical Production Subplan students are required to present an updated portfolio and resume of production and course work at a formal portfolio review session at the end of each semester enrolled. Upon completion of the final semester of the B.F.A. Design or Technical Production Subplans, students shall present their work at an exit portfolio presentation: all accumulated design and/or production work completed while enrolled in the B.F.A. subplan shall be presented.

Production activities and Theatre Arts disciplinary rules shall be governed by a student handbook that is available to the student through the Department of Theatre Arts.

A student will be placed on departmental academic probation in the Department of Theatre Arts if her/his grade point average drops below the minimum requirements for the degree plan in which she/he are enrolled. A theatre arts student who is on academic probation is not allowed to audition for or accept an acting role or serve as a designer, stage manager or other significant production position for any of the productions during the next regular semester they are enrolled. If after a regular semester the student's grade point average returns to at least the minimum required grade point average for her/his degree plan, then the probation is removed. However, if after a regular semester the student's grade point average does not meet the minimum required grade point average, the student may be removed from the degree program and will be advised as to other degree plan alternatives, should they exist.

The Department of Theatre Arts offers limited scholarships to deserving students. Work-study positions are also available. Contact the Department of Theatre Arts for information.

Requirements for a Bachelor of Fine Arts Degree in Theatre Arts

English

Six hours (1301 and 1302 or approved substitutes).

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing.

U.S. Political Science

Six hours covering U.S. and Texas constitutions (This requirement is mandated by state law and cannot be waived).

U.S. History

Six hours of U.S. History or three hours of U.S. and three hours of Texas history (This requirement is mandated by state law and cannot be waived).

Mathematics

Six hours (MATH 1301 or higher).

Natural Science

Eight hours in a single lab science (biology, chemistry, geology, or physics).

Fine Arts

Six hours from art, dance, music, architecture, or theatre arts.

Social/Cultural Studies

Three hours.

Electives

Sufficient to give the total number of hours required for degree.

Options

B.F.A. Theatre Studies Subplan

THEA 0181, 1101, 1303, 1304, 1305, 1307, 1343, 2306, 2352.

Plus 45 upper-division hours including:

THEA 3300, 3301, 3303, 3304, 3305, 3306, 3309, 3315, 3320, 3340, 4302, 4303, 4304, 4342. 4343.

B.F.A. Performance Subplan

THEA 1101, 1303, 1304, 1305, 1307, 1343, 2306, 2337, 2352.

Plus 39 upper-division hours including:

THEA 3300, 3308, 3309, 3315, 3317, 3335, 3340, 3341, 3346, 4301, 4302, 4303 and 4304.

B.F.A. Design Subplan

THEA 1101, 1303, 1304, 1305, 1307, 1343, 2306.

Plus 39 upper-division hours including:

THEA 3300, 3301, 3303, 3304, 3305, 3306, 3309, 3315, 4302, 4303, 4304, 4343 and 4344.

B.F.A. Technical Production Subplan

THEA 1101, 1303, 1304, 1305, 1307, 1343, 2306.

Plus 42 upper-division hours including:

THEA 3300, 3301, 3303, 3304, 3305, 3306, 3309, 3315, 4302, 4303, 4304, 4314, 4320, 4344.

All Theatre Arts majors shall enroll in one (1) hour per semester in residence in THEA 0181 (Theatre Practicum) in order to graduate. A minimum of two (2) hours and maximum of eight (8) hours of THEA 0181

are required. The exception is for the BFA Technical Production Subplan student who is required to enroll in six (6) hours of THEA 0281 (Technical Theatre Practicum) in lieu of three (3) hours of THEA 0181 (Theatre Practicum). Students should see their advisor regarding practicum obligations.

Total

128 hours, of which at least 39 must be at the 3000/4000 level.

Oral Communication Competency

Students majoring in Theatre Arts may demonstrate competency in oral communications by taking any course approved by the Undergraduate Assembly for this purpose. Alternatively, they may demonstrate this competency by passing the University proficiency examination in oral communication.

Computer Use Competency

Students majoring in Theatre Arts may demonstrate competency in computer use by taking any course approved by the Undergraduate Assembly for this purpose. Alternatively, they may demonstrate this competency by passing the University proficiency examination in computer use.

Teacher Certification

Students interested in Texas Teacher Certification should consult the College of Education for the most recent changes in requirements regarding admission to teacher education, completion of university programs in preparation for certification, and eligibility for certification after graduation.

Theatre Arts Faculty

Chair

Professor LaFontaine

Professor

A. Gaupp

Associate Professors

Chapa, Kongevick, Maher, Navalinsky

Senior Lecturer

N. Gaupp

Specialist

Harvey, Land

Women's Studies Program

223 University Hall · Box 19599 · 817-272-3131
www.uta.edu/womens_studies

Overview

The Women's Studies minor provides students with the opportunity to engage in critical and analytical examination of issues involving gender and sexual difference. Courses typically emphasize the significance of gender and the relevance of race, ethnicity, age, class and sexual orientation for understanding the social world. The program offers a unique

opportunity for students to complement their work in a traditional discipline with a minor that can be tailored to meet specific interests and needs. It can also be an area of concentration for the Interdisciplinary Studies major.

The Women's Studies Program is a flexible interdisciplinary program taught by faculty from a diversity of fields. Courses are taught and taken by both women and men. A minor in Women's Studies prepares graduates for a variety of graduate programs as well as for careers in an increasingly gender-integrated workplace.

Students seeking the Women's Studies minor should first consult with advisors in their departments or programs for approval of the minor, then with the Women's Studies Program director. A Women's Studies minor consists of 18 hours selected from the following courses or from other approved courses.

Women's Studies Faculty

Director

Professor Shelton

The Department of Biology

337 Life Science Bldg. · Box 19498 · 817-272-2871
www.uta.edu/biology

Academic Advising: 345, 346 and 347 Life Science Bldg. · 817-272-2408

Overview

The Department of Biology curriculum familiarizes students with basic concepts inherent to biological science and allows them to master new, cutting edge areas of biological research. Its degree programs prepare students to enter exciting and challenging careers in the many diverse and rapidly expanding areas of biological employment, including environmental biology, conservation, microbiology, the health sciences, science teaching, pharmacology, biotechnology, molecular biology, neurobiology, and forensics as well as in basic biological research. Superior teaching and faculty involvement with students is a high priority in the department. Many of its faculty have received university-wide awards for teaching excellence. Biology faculty have internationally recognized research programs in which students are actively encouraged to participate through credit for supervised research. Thus, students can prepare for careers in specific areas of biology by being actively engaged in research related to that career area under faculty supervision.

The Department of Biology offers four programs of study leading to an undergraduate degree. These are the Bachelor of Arts (B.A.) degree in Biology and the Bachelor of Science (B.S.) degrees in Biology, Microbiology or Medical Technology. The Microbiology B.S. degree prepares students to enter careers in the highly diverse field of microbiology, ranging from control of infectious diseases, through public health and environmental microbiology to genetic engineering and molecular biology or to pursue graduate study. The B.S. in Medical Technology combines course work with 16 months of clinical laboratory training in an accredited hospital school of medical technology. This degree prepares students for careers as technicians in medical laboratories, clinics, hospitals and industry. The Biology B.S.

program provides students with a strong background in the fundamental tenets of the biological sciences while allowing them to customize their degree plans to meet specific career goals. The Biology B.A. program is suitable for career preparation in a number of biological fields and for teaching certification in Biology or Composite Science.

There are five degree plan options through which students can complete their Biology B.S. degree. Option one in General Biology allows students to choose elective courses beyond the biology core that prepare them to enter a specific professional field or graduate school for further study and research. Option two in Genomics specifically prepares students for careers in the rapidly expanding area of genetics research. Option three in Environmental Biology prepares students to enter a broad range of exciting and rewarding professions in environmental science and conservation. Option four, Pre-medical, Pre-dental and Pre-veterinary Biology, provides students with course work that makes them highly competitive for acceptance into medical, dental or veterinary schools. Option five in Forensics, provides students with the training necessary to pursue exciting careers in biological forensics, DNA testing or police department laboratories.

All Biology degrees and degree plan options are supported by providing students with ready access to both academic and career advice provided by a full-time undergraduate advisor and faculty members knowledgeable with a student's particular areas of academic and/or career interests. Students are strongly encouraged to interact with departmental and faculty advisors throughout their academic careers, particularly through independent research under faculty supervision, to develop the skills and course work background that will allow them to achieve their future academic/career goals. Detailed information on Biology and degree plan options is provided later in this section.

Beyond the undergraduate B.A. and B.S. degrees, the Department of Biology offers programs leading to graduate degrees, including the Master of Science in Biology (M.S.) which allows students to pursue biological careers requiring a greater knowledge base than provided by an undergraduate B.A. or B.S. degree and a Doctor of Philosophy Degree in Quantitative Biology (Ph.D.) which allows students to carry out independent dissertation research within a chosen area of biological research leading to a career in research and/or university teaching. The Ph.D. degree in Biology provides students with a strong background in modern mathematical approaches to biological research, including biostatistics, experimental design and mathematical modeling of biological systems. The Graduate Catalog provides details of the Biology M.S. and Ph.D. degree programs.

The Department of Biology takes pride in offering students outstanding degree programs supported by excellent teaching, undergraduate research opportunities and superior academic advising. These programs make graduates highly competitive in the job market or when applying to graduate or professional degree programs. Please visit the Biology Department and speak with one of our advisors. Phone 817-272-2408 to make an appointment.

Applying for Major Status in Biology

Freshmen who have no previous college work must complete the following courses before applying to the Biology Department to become a major:

19 hours from the University core (consisting of courses in English, history, political science, et al. See list of general core curriculum requirements set by the University elsewhere in this catalog) and a minimum of 20 hours from the courses below:

Biology

BIOL 1441. Cell and Molecular Biology
BIOL 1442. Structure and Function of Organisms
BIOL 2343. Evolution, Ecology and Biodiversity
BIOL 3315. Genetics

MedTech

BIOL 1441. Cell and Molecular Biology
BIOL 1442. Structure and Function of Organisms
BIOL 3444. General Microbiology

MicroBiology

BIOL 1441. Cell and Molecular Biology
BIOL 3444. General MicroBiology
BIOL 3445 Methods in Microbiology
BIOL 4302 Microbial Genetics

Chemistry

CHEM 1441. General Chemistry 1
CHEM 1442. General Chemistry 2

The applicant for status as a biology major MUST have a GPA of 2.25 or better in all courses taken, and 2.25 or better in biology courses. An application form is available from the undergraduate advisor (Room 345 or 346 LS).

A suggested course sequence for entering freshmen students for the first two years is:

Freshman Year

First Semester: ENGL 1301; MATH 1323; CHEM 1441; BIOL 1441; HIST 1311 - Total Credit 17 hours
Second Semester: ENGL 1302; MATH 1426; CHEM 1442; BIOL 1442 or 2343 1; HIST 1312 - Total Credit 17 or 18 hours.

Sophomore Year

First Semester: ENGL or COMS 3302, 3 hours; CHEM 2181 and 2321; BIOL 1442 or 2343 1; POLS 2311 - Total Credit 13 or 14 hours
Second Semester: ENGL or COMS 3302, 3 hours; CHEM 2182 and 2322; BIOL 3315; POLS 2312 - Total Credit 13 hours.

[1] Micro majors will substitute 3444 in the second semester of their freshman year, and another micro class in the first semester of their sophomore year. Med Tech majors will substitute 3444 during the first semester of their sophomore year.

Transfer students interested in one of the degree programs in biology will, after admission to UT Arlington, be placed into pre-major status: BIOL intended, MEDT intended, or MICR intended major. To apply for status as a major in biology, microbiology, or medical technology, these students must have a minimum of 39 hours which include:

- At least 28 hours in the University core curriculum including eight hours of freshman chemistry, with lab (credit by transfer or earned at UT Arlington).
- At least 11 hours in biology courses taken at UT Arlington that apply to one of the three programs awarded by the department.

At the time of application for major status in biology, the student must have a GPA of 2.25 or better in courses taken at UT

Arlington (both overall and in biology courses). An application form for requesting major status is available from the Department Advisor (Room 346 LS). Transfer students will be evaluated for major status only after completing 11 hours in biology in residence at UT Arlington.

Maintaining Major Status

- Students who are accepted as majors in biology, microbiology, or medical technology must thereafter maintain a GPA of 2.25 or better in all courses and in biology courses. Any student whose GPA falls below 2.25 in either of these categories will be returned to undeclared status at the end of the semester in which the deficiency occurs.
- If the student is able to make up the GPA deficiency in the semester immediately following loss of major status, he/she can be reinstated as a major by making application to the Departmental Advisor when grades are released. Courses to make up a GPA deficit must be taken at UT Arlington (individuals should seek advice from the Department Advisor in this regard). Students whose overall or major GPA falls below a 1.25 will not be allowed to register for any junior or senior biology course. Students whose GPA is below 1.0 will not be allowed to register in any biology course. The GPA deficit in all affected areas (overall, major, and/or both) must be raised to 2.25 or better before the student can apply for reinstatement as a major.
- Students who have lost status as a major must have departmental permission to enroll in any junior or senior course in biology at UT Arlington.
- Students in the medical technology program should have a 2.8 GPA or higher after completing three years of course work to be competitive when applying for the final year of training in medical technology.

Requirements for a Minor in Biology

A minor in biology will consist of a minimum of 18 credit hours of biology classes that would be applicable toward a major in biology. Non-majors' courses such as BIOL 1301 (Nutrition) or BIOL 2457 and 2458 (Human Anatomy and Physiology I and II) will not apply toward a minor in biology. A minimum of six of the 18 credit hours required for the minor must be at the 3000 or 4000 level.

A 2.0 grade average must be maintained in the minor. All classes for a Biology minor must be approved by an academic advisor in the Biology Department. Transfer students must complete at least nine hours toward the minor at UT Arlington, and six of the nine hours must be 3000 or 4000 level.

General Information

- In order to receive a B.A. degree in Biology or a B.S. degree in Biology or Microbiology from UT Arlington, transfer students must complete a minimum of 18 hours of junior or senior level courses (12 of the 18 hours in Biology) at UT Arlington. Transfer students who are approved for admission to the medical technology program must complete at least 13 hours of junior or senior level courses in biology at UT Arlington to qualify for a B.S. Degree in Medical Technology from UT Arlington.

- No student working toward a B.A. degree in Biology or a B.S. degree in Biology, Medical Technology or Microbiology may take any biology course on a Pass/Fail basis other than BIOL 3149, 3249, 3349, 4179, 4279, 4379, 4189, or 4289.
- Students are not allowed to receive credit for biology courses at the sophomore level or above by special examination.
- Exceptions to the core course prerequisites for advanced courses will be made only for specialized degree programs such as Medical Technology, Nursing, and Physical Education, and for selected non-majors with special needs.

Computer and Oral Communication Competency Requirement

Students majoring in Biology, Microbiology, or Medical Technology are required to demonstrate computer use and oral communication competencies. In order to fulfill the University requirement of competency in computer usage, a student must take BIOL 1450, CSE 1301 or obtain a passing score on the University proficiency exam. Oral communication competency can be demonstrated by completion of BIOL 3101, COMS 1301 or 3302.

Requirements for a Bachelor of Arts Degree in Biology

The Bachelor of Arts Degree in Biology is suitable for career preparation in a number of biological career fields and for students who desire teaching certification with a teaching field in biology or composite science. Students choosing this program are required to consult with the Department of Biology's undergraduate advisor to develop an acceptable degree plan. Students seeking teaching certification with a teaching field in biology or composite science are required to consult with the Department of Biology certification advisor in order to develop an acceptable teaching certification degree program.

English, Technical Writing and Speech (12 hours)

ENGL 1301, 1302, three hours of literature and either BIOL 3305 or COMS 3302 [2].

[2] A course in which students develop proficiency in oral presentation must be taken to meet University requirements for graduation. COMS 3302 can be used as an elective to meet this requirement if BIOL 3305 is used to meet the English requirement. BIOL 3101 can also be used to meet the oral presentation requirement.

Political Science (6 hours)

2311, 2312.

History (6 hours)

1311, 1312.

Fine Arts (3 hours)

Three hours from art, dance, music, architecture or the theatre arts.

Social/Cultural Studies (3 hours)

See the biology undergraduate advisor for a list of courses which can be used to fulfill this requirement.

Computer Literacy (4 hours)

BIOL 1450 or equivalent.

Mathematics [3] (6 hours)

1302, 1303.

[3] Transfer students must present a minimum of six semester credit hours of equivalent or higher level mathematics courses.

Electives (17 hours)

Nine hours of advanced elective courses (3000/4000 level courses) and 8 hours of any level electives

Modern and Classical Languages (8 or 9 hours)

Eight hours in a single language or nine hours from one liberal arts cluster (see liberal arts cluster substitution list in the introductory information for the College of Science).

Natural Science other than Biology (19 hours)

CHEM 1441, 1442, 2321, and PHYS 1441 and 1442.

Major (36 hours)

36 hours including the 14 hours of core curriculum consisting of BIOL 1441, 1442, 2343 and 3315; 12 hours of diversity courses chosen from BIOL 3427, 3444 and 3454; 7 hours of advanced core courses chosen from BIOL 3310, 3301, 3339, 3442, and 3457, plus a 3-hour advanced BIOL elective course.

Total of 120 hours

Suggested Course Sequence

Freshman Year:
ENGL 1301, MATH 1302, CHEM 1441, BIOL 1441, HIST 1311 - 17 hours
ENGL 1302, MATH 1303, CHEM 1442, BIOL 1442 - 14 hours

Sophomore Year:
CHEM 2321, BIOL 1450, BIOL 2343, Literature (3 hours), POLS 2311 - 16 hours
BIOL 3427, BIOL 3315, HIST 1312, POLS 2312, Social/Cultural Studies elective (3 hours) - 16 hours

Junior Year:
BIOL 3427, PHYS 1441, Modern Language (4 hours), Elective (3 hours) - 15 hours
BIOL 3454, PHYS 1442, Modern Language (4 hours), Advanced Elective (3 hours) - 15 hours

Senior Year:
BIOL Adv. Core (4 hours), BIOL 3305 or COMS 3302 (3 hours), Advanced Elective (3 hours), BIOL Adv. Elective (3 hours) - 13 hours
BIOL Adv. Core (3 hours), Fine Arts Elective (3 hours), Adv. Elective (3 hours), Electives (5 hours) - 14 hours

Teacher Certification

Students interested in earning a Bachelor of Arts or Bachelor of Science degree with a major in biology with secondary teacher certification, biology as a concentration in science composite certification, or in biology as a second teaching field should refer to the College of Education section of this catalog for teacher certification requirements. Students seeking secondary teacher certification must be advised by the Department of Biology advisor for teacher certification.

Composite Science Certification

Students wishing to teach on a composite science certificate must have earned a bachelor's degree that encompasses general studies, an academic specialization or field (in this case, composite science), and teaching knowledge and skills taught through the College of Education. The Bachelor of Arts Degree in Biology meets Texas State requirements for the first two conditions with the addition of two courses in Geology (GEOL 1425 and 1426). The teaching certification block of courses offered by the College of Education satisfies the third condition. Biology majors seeking secondary composite science teacher certification must be advised by the Department of Biology advisor for teacher certification.

Biology Bachelor of Arts Degree Option for Composite Science Certification

In order to be qualified for Composite Science Teaching Certification under the Bachelor of Arts Degree in Biology, students must take the following courses: BIOL 1441, 1442, 2343 and 3315; 12 hours of diversity courses consisting of BIOL 3427, 3444 and 3454; 7 hours of advanced core courses chose from BIOL 3301, 3310, 3339, 3442 and 3457; plus a 3-hour advanced biology elective. Required natural science courses include CHEM 1441, 1442, PHYS 1441 and 1442, and GEOL 1425 and 1426.

Requirements for a Bachelor of Science Degree in Biology

The requirements to receive a Bachelor of Science Degree in Biology can be achieved through degree plans under any one of five options (i.e., Option 1-General Biology, Option 2-Genomics, Option 3-Environmental Biology, Option 4-Pre-Medical, Pre-Dental and Pre-Veterinary, and Option 5-Forensics) detailed in this section. Before choosing a B.S. degree program under one of these options, please consult with the biology undergraduate advisor and biology faculty associated with the chosen option.

Option 1: General Biology

The General Biology Option is intended for students studying basic aspects of the biological sciences. It is not directed toward a specific biological career path as are Option 2 (Genomics), Option 3 (Environmental Biology), Option 4 (Pre-Medical, Pre-Dental and Pre-Veterinary), and Option 5 (Forensics). Students developing degree plans under the General Biology Option choose elective courses in Biology, other sciences and nonscience areas to develop either a broad knowledge-base in Biology or to focus their studies in a particular area of Biology (a list of potential areas of study in Biology and the faculty who can assist students in developing degree plan programs in these areas is available from the undergraduate biology advisor). The General Biology Option will prepare students for careers in the Biological Sciences not included in Options 2-5 or for graduate study in Biology at the Master's or Ph.D. levels.

English, Technical Writing and Speech (12 hours)

ENGL 1301, 1302, three hours of literature and either BIOL 3305 or COMS 3302*.

*A course in which students develop proficiency in oral presentation must be

taken to meet University requirements for graduation. COMS 3302 can be used as an elective to meet this requirement if BIOL 3305 is used to meet the English requirement. BIOL 3101 can also be used to meet the oral presentation requirement.

Political Science (6 hours)

2311, 2312.

History (6 hours)

1311, 1312.

Fine Arts (3 hours)

Three hours from art, dance, music, architecture or theatre arts.

Social/Cultural Studies (3 hours)

See the biology undergraduate advisor for a list of courses which can be used to fulfill this requirement.

Computer Literacy (4 hours)

BIOL 1450 or equivalent

Mathematics* (7 hours)

1323, 1426

*Transfer students must present a minimum of six semester credit hours of equivalent or higher level mathematics courses through transfer or placement examination.

Electives (13 hours)

13 hours of elective courses, 5 hours of which must be advanced (i.e., 3000/4000 level courses)

Natural Science other than Biology (24 hours)

CHEM 1441, 1442, 2321, 2322, 2181, and 2182, and PHYS 1441 and 1442.

Major (42 hours)

42 hours including the 17 hours of core curriculum consisting of BIOL 1441, 1442, 2343, 3315, and 2300 or approved substitute; 8 hours of diversity courses chosen from BIOL 3427, 3444 and 3454; 6 hours of advanced core courses chosen from BIOL 3339, 3442, 3457, and 3301, plus 11 hours of advanced BIOL elective courses.

Total of 120 hours*

*University requires a minimum of 36 advanced hours to satisfy degree requirements.

Suggested Course Sequence

Freshman Year:
ENGL 1301, MATH 1323, CHEM 1441, BIOL 1441, HIST 1311 - 17 hours
ENGL 1302, MATH 1426, CHEM 1442, BIOL 1442 - 15 hours

Sophomore Year:
CHEM 2181/2321, BIOL 1450, BIOL 2343, Literature (3 hours), POLS 2311 - 17 hours
CHEM 2182/2322, BIOL 2300, BIOL 3315, HIST 1312, POLS 2312 - 16 hours

Junior Year:
BIOL Diversity (4 hours), BIOL Adv. Core (3 hours), PHYS 1441, COMS 3302 - 14 hours
BIOL Diversity (4 hours), BIOL Adv. Core (3 hours), PHYS 1442, Elective (3 hours) 14 hours

Senior Year:
BIOL Adv. Elective (with lab, 4 hours), BIOL

Adv. Elective (3 hours), Social/Cultural Studies elective (3 hours), BIOL 3305 - 13 hours
BIOL Adv. Elective (with lab, 4 hours), Fine Arts Elective (3 hours), Adv. Elective (7 hours) - 14 hours

Option 2: Genomics

The genomics option is intended to prepare students for laboratory-oriented careers in genetics research and biotechnology industries as well as entry into graduate programs. Students are strongly advised to consult with appropriate faculty members to outline a course of study directed at their specific career goals (a list of faculty members who can assist students in developing a degree plan program in this area is available from the undergraduate biology advisor).

English, Technical Writing and Speech (12 hours)

ENGL 1301, 1302, three hours of literature and either BIOL 3305 (Scientific and Technical Writing) or COMS 3302*.

*A course in which students develop proficiency in oral presentation must be taken to meet University requirements for graduation. COMS 3302 can be used as an elective to meet this requirement if BIOL 3305 is used to meet the English requirement. BIOL 3101 can also be used to meet the oral presentation requirement.

Political Science (6 hours)

2311, 2312.

History (6 hours)

1311, 1312.

Fine Arts (3 hours)

Three hours from art, dance, music, architecture, or theatre arts.

Social/Cultural Studies (3 hours)

See the biology undergraduate advisor for a list of courses which can be used to fulfill this requirement.

Computer Literacy (4 hours)

BIOL 1450 or equivalent

Mathematics* (7 hours)

1323, 1426

*Transfer students must present a minimum of six semester credit hours of equivalent or higher level mathematics courses through transfer or placement examination.

Electives (7 hours)

7 hours of elective courses, 2 hours of which must be advanced (i.e., 3000/4000 level courses)

Natural Science other than Biology (30 hours)

CHEM 1441, 1442, 2321, 2322, 2181, 2182, 4311 and 4312, and PHYS 1441 and 1442.

Major (42 hours)

42 hours including the 17 hours of core curriculum consisting of BIOL 1441, 1442, 2343, 3315, and 2300 or approved substitute; 6 hours of genomics core courses consisting of BIOL 3317 and 3339; and 19 hours of advanced biology electives; no more than two courses should be chosen

from BIOL 3427, 3341, 3444, 3454 or 4312; the remaining hours must be obtained from BIOL 3301, 3319, 3330, 4302, 4307, 4308, 4330, 4346.

Total of 120 hours*

*University requires a minimum of 36 advanced hours to satisfy degree requirements.

Suggested Course Sequence

Freshman Year:
ENGL 1301, MATH 1323, CHEM 1441, BIOL 1441, HIST 1311 - 17 hours
ENGL 1302, MATH 1426, CHEM 1442, BIOL 1442 - 15 hours

Sophomore Year:
HIST 1312, POLS 2311, CHEM 2321, CHEM 2181, BIOL 2343, PHYS 1441 - 17 hours
POLS 2312, CHEM 2322, CHEM 2182, PHYS 1442, BIOL 3315 - 14 hours

Junior Year:
BIOL 3444, CHEM 4311, COMS 3302, BIOL 1450 - 14 hours
BIOL 2300, BIOL 3317, CHEM 4312, Social/Cultural Studies Elective (3 hours), BIOL 3339 - 15 hours

Senior Year:
BIOL 4312, BIOL Adv. Electives (5 hours), Fine Arts Elective (3 hours), Literature (3 hours) - 14 hours
BIOL Adv. Electives (6 hours), BIOL Adv. Elective with Lab (4 hours), Elective (4 hours) - 14 hours

Option 3: Environmental Biology

The option in Environmental Biology is intended to prepare students to enter a wide range of environmental professions or graduate school in Environmental Science by emphasizing relevant courses in biology and other environmentally-related disciplines. Students pursuing this option are strongly encouraged to seek advice from appropriate faculty advisors (a list of biology faculty members who can assist students in developing degree plan programs in Environmental Biology is available from the undergraduate biology advisor).

English, Technical Writing and Speech (12 hours)

ENGL 1301, 1302, three hours of literature and either BIOL 3305 (Scientific and Technical Writing) or COMS 3302*.

*A course in which students develop proficiency in oral presentation must be taken to meet University requirements for graduation. COMS 3302 can be used as an elective to meet this requirement if BIOL 3305 is used to meet the English requirement. BIOL 3101 can also be used to meet the oral presentation requirement.

Political Science (6 hours)

2311, 2312.

History (6 hours)

1311, 1312.

Fine Arts (3 hours)

Three hours from art, dance, music, architecture, or theatre arts.

Social/Cultural Studies (3 hours)

See the biology undergraduate advisor for a list of courses which can be used to fulfill this requirement.

Computer Literacy (4 hours)

BIOL 1450 or equivalent.

Mathematics* (11 hours)

1323, 1426, 2425.

*Transfer students must present a minimum of nine semester credit hours of equivalent or higher level mathematics courses through transfer or placement examination.

Electives (3 hours)

3 hours of elective courses at any level.

Recommended courses include: ECON 4302 and MANA 3319.

Natural Science other than Biology (24 hours)

CHEM 1441, 1442, 2321, 2322, 2181 and 2182, and PHYS 1441 and 1442.

Electives in other sciences (6 hours)

6 hours to be chosen from GEOL 3305, 4320, 4350, 4352, 4408; and PSYC 3316 or approved substitution.

Major (42 hours)

42 hours including the 17 hours of core curriculum consisting of BIOL 1441, 1442, 2343, 3315, and 2300 or approved substitute; 12 hours of diversity courses, including BIOL 3427, 3444, 3454; 13 hours of advanced biology courses (at least one course must have a laboratory component, laboratory courses are indicated by *) chosen from BIOL 3149/3249 *, 3328, 3341, 3339, 3170/3318 *, 3457 *, 4338, and 4444 *.

Total of 120 hours*

*University requires a minimum of 36 advanced hours to satisfy degree requirements.

Suggested Course Sequence

Freshman Year:
ENGL 1301, MATH 1323, CHEM 1441, BIOL 1441, HIST 1311 - 17 hours
ENGL 1302, MATH 1426, CHEM 1442, BIOL 1442 - 15 hours

Sophomore Year:
CHEM 2181/2321, BIOL 1450, BIOL 2343, BIOL 2300, POLS 2311 - 17 hours
CHEM 2182/2322, BIOL 3315, BIOL 3427, HIST 1312, POLS 2312 - 17 hours

Junior Year:
BIOL 3444, Soc Sci Elective (3 hours), MATH 2425, PHYS 1441 - 14 hours
BIOL 3454, BIOL Adv. Elective (3 hours), PHYS 1442, BIOL 3305, COMS 3302 - 17 hours

Senior Year:
Other Science Elective (3 hours), Fine Arts Elective (3 hours), Elective (4 hours), BIOL Adv. Elective (3 hours) - 13 hours
Other Science Elective (3 hours), BIOL Adv. Elective (3 hours), BIOL Adv. Elective with Lab (3 hours), Literature (3 hours) - 12 hours

Option 4: Pre-Medical, Pre-Dental and Pre-Veterinary Biology

The Pre-Medical, Pre-Dental, and Pre-Veterinary Option provides the most suitable combination of courses to prepare students for the study of medicine, dentistry, or veterinary medicine. Students interested in these career paths may select any other biology option or the degree program in Microbiology and still satisfy minimum requirements for admission to

professional schools. Students should maintain contact with the Health Professions Advisor who is available through the Dean of Science Office in Room 206, Life Science Building.

English, Technical Writing and Speech (12 hours)

ENGL 1301, 1302, three hours of literature and either BIOL 3305 (Scientific and Technical Writing) or COMS 3302*.

*A course in which students develop proficiency in oral presentation must be taken to meet University requirements for graduation. COMS 3302 can be used as an elective to meet this requirement if BIOL 3305 is used to meet the English requirement. BIOL 3101 can also be used to meet the oral presentation requirement.

Political Science (6 hours)

2311, 2312.

History (6 hours)

1311, 1312.

Fine Arts (3 hours)

Three hours from art, dance, music, architecture, or theatre arts.

Social/Cultural Studies (3 hours)

See the biology undergraduate advisor for a list of courses which can be used to fulfill this requirement.

Computer Literacy (4 hours)

BIOL 1450 or equivalent.

Mathematics* (7 hours)

1323, 1426.

*Transfer students must present a minimum of six semester credit hours of equivalent or higher level mathematics courses through transfer credit or placement examination.

Electives (10 hours)

10 hours of elective courses, 5 of which must be advanced (i.e., 3000/4000 level courses, CHEM 4312 recommended).

Natural Science other than Biology (27 hours)

CHEM 1441, 1442, 2321, 2322, 2181, 2182, 4311, and PHYS 1441 and 1442.

Major (42 hours)

42 hours including the 17 hours of core curriculum consisting of BIOL 1441, 1442, 2343, 3315, and 2300 or approved substitute; 8 hours of diversity courses chosen from BIOL 3427, 3444, and 3454; 8 hours of advanced core courses consisting of BIOL 3442 and 3452; and 9 hours of advanced elective courses chosen from BIOL 3301, 3312, 3345, 4312, or CHEM 4312.

Total of 120 hours*

*University requires a minimum of 36 advanced hours to satisfy degree requirements.

Suggested Course Sequence

Freshman Year:
ENGL 1301, MATH 1323, CHEM 1441, BIOL 1441, HIST 1311 - 17 hours

ENGL 1302, MATH 1426, CHEM 1442, BIOL 1442 - 15 hours

Sophomore Year:
CHEM 2181/2321, BIOL 1450, BIOL 2343, BIOL 3305, POLS 2311 - 17 hours
CHEM 2182/2322, BIOL 2300, BIOL 3315, HIST 1312, POLS 2312 - 16 hours

Junior Year:
BIOL Diversity (4 hours), BIOL 3442, PHYS 1441, COMS 3302 - 15 hours
BIOL Diversity (4 hours), BIOL 3452, PHYS 1442, Literature (3 hours) - 15 hours

Senior Year:
BIOL Adv. Electives (6 hours), Social/Cultural Studies Elective (3 hours), CHEM 4311 - 12 hours
BIOL Adv. Elective with Lab (3 hours), Fine Arts Elective (hours), CHEM 4312, Elective (4 hours) - 13 hours

Option 5: Forensics

The option in forensics is intended to prepare students for a career in biological forensics by emphasizing relevant courses in biology and related disciplines. This option is designed for students who wish to seek employment in a forensics, DNA testing, or a police department laboratory upon graduation, and, as such, an internship (BIOL 3349) is recommended when possible. Students pursuing this option are encouraged to seek advice from the faculty forensics advisor.

English, Technical Writing and Speech (12 hours)

ENGL 1301, 1302, three hours of literature and either BIOL 3305 (Scientific and Technical Writing) or COMS 3302*.

*A course in which students develop proficiency in oral presentation must be taken to meet University requirements for graduation. COMS 3302 can be used as an elective to meet this requirement if BIOL 3305 is used to meet the English requirement. BIOL 3101 can also be used to meet the oral presentation requirement.

Political Science (6 hours)

2311, 2312.

History (6 hours)

1311, 1312.

Fine Arts (3 hours)

Three hours from art, dance, music, architecture, or the theatre arts.

Computer Literacy (4 hours)

BIOL 1450 or equivalent.

Mathematics* (7 hours)

1323, 1426.

*Transfer students must present a minimum of six semester credit hours of equivalent or higher level mathematics courses through transfer or placement examination.

Electives (10 hours minimum)

ANTH 4406, 4407, 4322; BIOL 3303; CRCJ 3370, 4340, 4389.

Natural Science other than Biology (27 hours)

CHEM 1441, 1442, 2321, 2322, 2181, 2182, 4311, and PHYS 1441 and 1442.

Major (42 hours)

42 hours including the 17 hours of core curriculum consisting of BIOL 1441, 1442, 2343, 3315, and 2300 or approved substitute; 9 hours of advanced forensic courses consisting of BIOL 3352*, 4352 and 4355*, and 16 hours of advanced biology electives to be chosen from 3149, 3249, 3349, 3317, 3339, 3353*, 3427*, 3444*, 4312, and 4331 (* indicates laboratory courses).

Total of 120 hours*

*University requires a minimum of 36 advanced hours to satisfy degree requirements.

Suggested Course Sequence

Freshman Year:
ENGL 1301, MATH 1323, CHEM 1441, BIOL 1441, HIST 1311 - 17 hours
ENGL 1302, MATH 1426, CHEM 1442, BIOL 1442 - 15 hours

Sophomore Year:
CHEM 2181/2321, BIOL 1450, BIOL 2343, BIOL 2300, POLS 2311 - 17 hours
CHEM 2182/2322, Literature (3 hours), BIOL 3315, HIST 1312, POLS 2312 - 16 hours

Junior Year:
BIOL 3352, BIOL 4352, BIOL Adv. Elective (3 hours), Social/Cultural Studies (3 hours), Elective (3 hours) - 15 hours
CHEM 4311, Elective (4 hours), Fine Arts (3 hours), COMS 3302 - 13 hours

Senior Year:
BIOL 4355, BIOL Adv. Elective with Lab (3 hours), BIOL Adv. Elective with Lab (3 hours), PHYS 1441 - 13 hours
BIOL Adv. Electives (7 hours), PHYS 1442, Elective (3 hours) - 14 hours

Bachelor of Science Degree in Medical Technology

A student who completes the special degree plan given below plus 16 months of clinical laboratory training in an accredited hospital school of medical technology may receive the degree of Bachelor of Science in Medical Technology, which will be conferred by The University of Texas at Arlington. Graduates may become certified in medical technology by passing the examination of the Board of Registry of the American Society of Clinical Pathologists (ASCP).

English, Technical Writing and Speech (12 hours)

ENGL 1301, 1302, three hours of literature and either BIOL 3305 (Scientific and Technical Writing) or COMS 3302*.

*A course in which students develop proficiency in oral presentation must be taken to meet University requirements for graduation. COMS 3302 can be used as an elective to meet this requirement if BIOL 3305 is used to meet the English requirement. BIOL 3101 can also be used to meet the oral presentation requirement.

Political Science (6 hours)

2311, 2312.

History (6 hours)

1311, 1312.

Fine Arts (3 hours)

Three hours from art, dance, music, architecture, or theatre arts.

Social/Cultural Studies (3 hours)

Three hours from social or cultural anthropology, archaeology, social/political/cultural geography, economics, sociology, classical studies, psychology, or linguistics.

Mathematics (6 hours)

1302, and MATH 1303 or MATH 1308.

Natural Science other than Biology (27 hours)

PHYS 1441, 1442; CHEM 1441, 1442, 2181, 2321, 2182, 2322 and 4311.

Computer Literacy (4 hours)

BIOL 1450 or equivalent.

Major (36 hours)

36 hours including 1441, 1442, 2457, 2458, 3312, 3315, 3353, and 3444, and seven hours at the 3000/4000-level of biology electives selected with the advice of the undergraduate advisor.

Total

103 hours, of which 16 must be 3000/4000 level, in addition to 16 months training in a school of medical technology approved by the Committee on Allied Health Education and Accreditation (CAHEA) in conjunction with the National Accrediting Agency for Clinical Laboratory Science (NAACLS).

Senior Year

Sixteen-month program in a school of medical technology which has been certified by the Committee of Allied Health Education and Accreditation (CAHEA) in conjunction with the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).

Requirements for a Bachelor of Science Degree in Microbiology

English, Technical Writing and Speech (12 hours)

ENGL 1301, 1302, three hours of literature and either BIOL 3305 (Scientific and Technical Writing) or COMS 3302*.

*A course in which students develop proficiency in oral presentation must be taken to meet University requirements for graduation. COMS 3302 can be used as an elective to meet this requirement if BIOL 3305 is used to meet the English requirement. BIOL 3101 can also be used to meet the oral presentation requirement.

Political Science (6 hours)

2311, 2312.

History (6 hours)

1311, 1312.

Fine Arts (3 hours)

Three hours from art, dance, music, architecture, or theatre arts.

Social/Cultural Studies (3 hours)

See the biology undergraduate advisor for a list of courses which can be used to fulfill this requirement.

Mathematics* (7 hours)

1323 and 1426.

*Transfer students must present a minimum of six semester credit hours of equivalent or higher level mathematics courses through transfer or placement examination.

Electives (10 hours)

10 hours.

Natural Science other than Biology (27 hours)

CHEM 1441, 1442, 2181, 2321, 2182, 2322, 4311, and PHYS 1441, 1442.

Computer Literacy (4 hours)

BIOL 1450 or equivalent.

Major (42 hours)

42 hours including BIOL 1441, 3444, 3445*, and 4302. Twenty seven additional hours must be selected from the following: 3170, 3311, 3312, 3318, 3327, 3328, 3343, 3353, 4312, 4345, 4388**, 4189, 4289*.

*or approved substitute.

**Must be taken under the supervision of approved faculty members.

A total of 3 hours of combined credit in 4388, 4189, or 4289 may be used toward the 20 hour required total.

Total of 120 hours*

*University requires a minimum of 36 advanced hours to satisfy degree requirements.

Suggested Course Sequence

Freshman Year:
ENGL 1301, MATH 1323, CHEM 1441, BIOL 1441, HIST 1311 - 17 hours
ENGL 1302, MATH 1426, CHEM 1442, BIOL 3444 - 15 hours

Sophomore Year:
HIST 1312, POLS 2311, CHEM 2321, CHEM 2181, BIOL 4302, PHYS 1441 - 17 hours
POLS 2312, CHEM 2322, CHEM 2182, PHYS 1442, BIOL 3445 - 15 hours

Junior Year:
BIOL, Microbial Electives (4 hours), CHEM 4311, COMS 3302, BIOL 1450 - 14 hours
BIOL, Microbial Electives (9 hours), Social/Cultural Studies Electives (3 hours), Elective (3 hours) - 15 hours

Senior Year:
BIOL, Microbial Electives (8 hours), Fine Arts Elective (3 hours), Literature (3 hours) - 14 hours
BIOL, Microbial Electives (6 hours), Electives (7 hours) - 13 hours

Dual Degree Plan: Bachelor of Science in Biology and Master of Science in Biomedical Engineering

This five-year curriculum prepares students for careers in the fast growing biotechnology and biomedical engineering 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, and a Bachelor of Science Degree in Biology.

The curriculum is offered jointly by the College of Engineering and the College of Science. In this program, two areas of emphasis are offered: (1) Bioimaging and (2) Biomaterials and Tissue Engineering.

Description

Biomedical engineers use quantitative methods and innovation to analyze and solve problems in biology and medicine. Students choose the biomedical engineering field to be of service to people, to partake in the excitement of working with living systems, and to apply advanced technology to the 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 biomedical engineering industries. The program includes course work in the basic sciences, core engineering, biomedical engineering, 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.

Requirements

Regardless whether a student chooses Bioimaging or Biomaterials and Tissue Engineering emphasis, after completion of 83 semester credit hours of the undergraduate courses from the list for the emphasis (below) and prior to taking any graduate course, the student must apply to the UT Arlington Graduate School for admission to the Bioengineering Department. A minimum grade point average of 3.0 in the 83 semester credit hours as well as a minimum average of 3.0 in the required English courses (1301 and 1302) and a minimum average of 3.0 in the required Mathematics courses (1426, 2425, 2326 and 3319) is required for admission to the Biomedical Engineering Graduate Program. The student should also submit two letters of recommendation, one from a faculty member and one from the Biology undergraduate advisor.

For course listings and suggested course sequences, please see Biomedical Engineering in the Engineering section of this catalog.

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.

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.

Career Opportunities

The program prepares students for managerial and leadership positions in the biomedical sciences and biosciences research fields. It is essential that science managers have a base of technical knowledge that allows them to understand and guide the work of their subordinates and to explain the work in non-technical terms to senior management and potential customers. The program also prepares students for managerial positions in fields outside of science. Additionally, it provides a solid foundation for those planning to pursue advanced degrees.

Course Requirements

English, Technical Writing and Speech (12 hours)

1301, 1302, three hours of literature and either BIOL 3305 (Scientific and Technical Writing) or COMS 3302*.

*A course in which students develop proficiency in oral presentation must be taken to meet University requirements for graduation. COMS 3302 can be used as an elective to meet this requirement if BIOL 3305 is used to meet the English requirement. BIOL 3101 can also be used to meet the oral presentation requirement.

Political Science (6 hours)

2311, 2312.

History (6 hours)

1311, 1312.

Fine Arts (3 hours)

Three hours from art, dance, music, architecture, or the theatre arts.

Social/Cultural Studies (6 hours)

ECON 2305 Macroeconomics and ECON 2306 Microeconomics.

Computer Literacy

INSY 2303 or BIOL 1450

Mathematics (6 hours)

1315 Math for Economics and Business Analysis I
1316 Math for Economics and Business Analysis II

Biology (37 hours)

BIOL 1441 Cell and Molecular Biology
BIOL 1442 Structure and Function of Organisms
BIOL 3444 General Microbiology
BIOL 3315 Genetics
The remaining 22 hours of course work must be chosen from among the following classes and must include at least 2 laboratory classes: 2457*, 3301, 3312, 3442*, 3353*, 3309, 4312, 4315.

*Indicates a laboratory course.

Science other than Biology (24 hours)

PHYS 1441, 1442, CHEM 1441, 1442, 2181, 2182, 2321, 2322.

Core Business (15 hours)

BSTAT 3321, OPMA 3306, ACCT 2301, MARK 3321, MANA 3319.

Graduate courses = 39 hours

Total

157 hours.

Suggested Course Sequence

Freshman Year:
ENGL 1301, MATH 1315, CHEM 1441, BIOL 1441, HIST 1311 - 17 hours
ENGL 1302, MATH 1316, CHEM 1442, BIOL 1442, HIST 1312 - 17 hours

Sophomore Year:
ECON 2305, POLS 2311, CHEM 2181 and 2321, INSY 2303 or BIOL 1450, BIOL 3444 - 17 or 18 hours
CHEM 2182 and 2322, BIOL 3315, ENGL or COMS 3302, POLS 2312, BSTAT 3321, ECON 2306 - 19 hours

Junior Year:
PHYS 1441, ENGL or COMS 3302, BIOL 4 hour elective, BIOL elective, Fine Arts 3 hour elective - 17 to 18 hours
BIOL elective, BIOL 4 hour elective, PHYS 1442, MARK 3321, MANA 3319 - 16 to 18 hours

Senior Year:
ACCT 2301, BIOL elective, BIOL elective, OPMA 3306 - 12 to 14 hours
ACCT 5302, FINA 5311, BLAW 5330 (or MANA 5337), BIOL elective, 3 hours approved graduate business elective - 15 to 16 hours

Fifth Year:
BSTAT 5325, ECON 5313, 9 hours approved graduate business electives - 15 hours
MANA 5336, 9 hours approved graduate business electives - 12 hours.

Dual Degree Plan: Bachelor of Science in Biology and Master of Science in Environmental and Earth Sciences

This five-year curriculum provides a common ground for interdisciplinary communication, an understanding of the environment, and the competence necessary for evaluating and solving complex environmental problems. The degree program prepares students for applied work in the private sector and governmental positions, and serves as the professional preparation required for applied technology and environmental management.

Description

Environmental scientists apply elements of engineering, biology, chemistry, and geology in an integrated approach to environmental systems. They also need an understanding of the forces that shape implementation of alternative environmental science and engineering solutions, and an understanding of how regulatory and political entities influence the implementation of viable technical solutions.

Career Opportunities

This program prepares students for a range of positions in local, state and federal agencies responsible for managing air and water quality, land use, and other aspects of the environment. It also prepares students for careers in private consulting agencies providing advice to government and industry.

Requirements

English (6 hours)

1301, 1302.

Mathematics (11 hours)

1323, 1426, 2425.

Natural Science other than Biology (33 hours)

PHYS 1441, PHYS 1442, CHEM 1441, CHEM 1442, CHEM 2321, CHEM 2181, CHEM 2322, CHEM 2182, 9 hours of approved Geology courses (1425, 3305, 4320, 4330, 4331, 4333) or approved Chemistry courses (2335, 2285).

Biology (38 hours)

Core curriculum:
1441, 1442, 2342, 2300 (or approved equivalent), 3315.
Required courses on biological diversity, two out of the following three: 3427, 3444, 3454.
Environmental courses:
3356 Env. Sci. Biol. Aspects, plus 10 hours of approved upper division electives (3149/3249, 3328, 3341, 3339, 3318/3170, 3457, 4338, 4350, 4444, 3325, 4326, at least one of which must have a lab.

Computer Literacy (4 hours)

BIOL 1450 or equivalent.

Other General Education Courses

English, Technical Writing and Speech (12 hours)

1301, 1302, three hours of literature and either BIOL 3305 (Scientific and Technical Writing) or COMS 3302*.

*A course in which students develop proficiency in oral presentation must be taken to meet University requirements for graduation. COMS 3302 can be used as an elective to meet this requirement if BIOL 3305 is used to meet the English requirement. BIOL 3101 can also be used to meet the oral presentation requirement.

Fine Arts (3 hours)

Three hours from art, dance, music, architecture, or theatre arts.

Political Science (6 hours)

2311, 2312.

History (6 hours)

1311, 1312.

Social/Cultural studies (3 hours)

Three hours from social or cultural anthropology, archeology, social/political/cultural geography, economics, sociology, classical studies, psychology, or linguistics (see recommended list of non-science electives below).

Non-science Electives (6 hours)

Six hours from disciplines outside the natural sciences (recommended courses include ECON 2306, ECON 4302, ARCH 4307, HIST 3350, GEOG 3355, POLS 3303, POLS 3305, POLS 3307, POLS 3302, POLS 4304, POLS 4351, CIRP 4391).

Graduate Courses

Environmental and Earth Sciences Core (15 hours)

CE 5321, CE 5319, EVSE 5310, EVSE 5311, CIRP 5341 or CIRP 5350.

Electives in Biology (9 hours)

Nine hours at the graduate level (5000 and above).

Other Graduate Electives (12 hours)

Twelve hours in Biology, Chemistry and Biochemistry, Civil and Environmental Engineering, City and Regional Planning, or Geology; must include 6 hours outside Biology.

Environmental and Earth Sciences Seminar (2 hours)

Two hours of EVSE 6100.

Total (for degrees)

160 semester hours.

Suggested Course Sequence

Freshman Year:
First Semester: ENGL 1301, MATH 1323, CHEM 1441, BIOL 1441, HIST 1311 - 17 hours.
Second Semester: ENGL 1302, MATH 1426, CHEM 1442, BIOL 1442, EXSA/DNCA - 16 hours.
Summer Session: BIOL 2343 - 3 hours.

Sophomore Year:
First Semester: ENGL 1301, MATH 1323, CHEM 1441, BIOL 1441, HIST 1311 - 17 hours.
Second Semester: ENGL 1302, MATH 1426, CHEM 1442, BIOL 1442, EXSA/DNCA - 16 hours.
Summer Session: BIOL 2343 - 3 hours.

Junior Year:
First Semester: BIOL 3356 Env Sci Biol, 4 hour BIOL elective w/lab, PHYS 1442, 3 hour Lit elective, 3 hour Fine Arts elective - 17 hours.
Second Semester: 4 hour BIOL diversity course, 3 hour Soc Sci elective, 3 hour BIOL elective, PHYS 1441, 3 hour Lit or COMS 3302 - 17 hours.

Senior Year:
First Semester: 3 hour BIOL elective, 6 hours GEOL electives, 6 hours non-science electives - 15 hours.
Second Semester: 3 hour GEOL elective, CE 5321, CIRP 5350 or CIRP 5341, 6 hours graduate BIOL electives - 15 hours.
Summer Session: EVSE 5310 - 3 hours.

Fifth Year
Fall Semester: CE 5319, EVSE 5311, 3 hour graduate BIOL elective, 3 hour other grad elective, 1 hour EVSE seminar - 13 hours.

Second Semester: 9 hours other grad electives, 1 hour EVSE seminar - 10 hours.

Dual Degree Plan: Bachelor of Science in Biology and Master of Science in Health Care Administration

This dual curriculum is 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 dual Master of Science Degree in Health Care Administration (HCA), 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 students engaged in this joint degree program are not accepted into the HCA graduate program, or enter the HCA program and fail to complete the requirements for the master's degree in HCA, then, in order to earn a BS in Biology, they must take the same, full complement of courses required to earn the BS as taken by students not enrolled in the BIOL/HCA joint program.

Description

Rapid and radical changes in the health care industry are forcing administrators to adopt new paradigms for cost management and the redesign of health care delivery processes, while increasing the quality of care delivered. The new health industry is shifting quickly toward managed care and capitation. This change has created a pressing need for health care delivery administrators, and the dual Biology/Health Care Administration BS/MS degree will help fulfill this need. This degree program is designed to provide students with a strong background in the life sciences and with a contemporary education in health care administration that will impart the necessary knowledge, skills and abilities to enable them to perform effectively in health care delivery. The program includes course work in the basic sciences and in health care administration. Additionally, students are required to take general education courses in literature, fine arts, history, political science and social science.

Career Opportunities

The program prepares students as health care administrators for leadership roles in provider organizations such as inpatient and outpatient hospitals, rehabilitation centers, psychiatric centers, chemical dependency units, nursing homes, retirement communities, institutional clinics, physician group practices, home health agencies, 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 health care administration, which is an advantage in preparing for a medical career.

Course Requirements

English, Technical Writing and Speech (12 hours)

1301, 1302, three hours of literature and either BIOL 3305 (Scientific and Technical Writing) or COMS 3302*.

*A course in which students develop proficiency in oral presentation must be

taken to meet University requirements for graduation. COMS 3302 can be used as an elective to meet this requirement if BIOL 3305 is used to meet the English requirement. BIOL 3101 can also be used to meet the oral presentation requirement.

Political Science (6 hours)

2311, 2312.

History (6 hours)

1311, 1312.

Fine Arts (3 hours)

Three hours from art, dance, music, architecture, or theatre arts.

Social/Cultural Studies (3 hours)

ECON 2305 Macroeconomics

Computer Literacy (3-4 hours)

INSY 2303 or BIOL 1450

Mathematics (6 hours)

1315 College Algebra for Economics and Business or 1302 College Algebra, and 1316 Math for Economics and Business Analysis

Biology (37 hours)

BIOL 1441 Cell and Molecular Biology
BIOL 1442 Structure and Function of Organisms
BIOL 3444 General Microbiology
BIOL 3315 Genetics
The remaining 22 hours of course work must be chosen from among the following classes: 2457*, 3301, 3312, 3442*, 3353*, 3309 (medical terminology), 4312, 4315, 4346*.

*Indicates a laboratory course.

Science other than Biology (24 hours)

PHYS 1441, 1442, CHEM 1441, 1442, 2181, 2182, 2321, 2322.

Approved Elective Undergraduate Business Courses (9 hours)

Graduate Course Sequence (36 hours)

Upon acceptance to the MS Program, students will begin the Cohort Graduate Courses:

1st Semester: HCAD 5301 (Health Care Administration) and HCAD 5337 (Ethics, Leadership and Teambuilding - 6 hours
2nd Semester: ACCT 5301 (Financial Accounting) and FINA 5315 (Health Care Financial Management) - 6 hours
3rd Semester: HCAD 5310 (Health Care Law) and INSY 5350 (Health Care Information Systems) - 6 hours
4th Semester: MANA 5340 (Strategic HR Mgmt) and BSTAT 5315 (Statistical Methods for Health Care Administrators) - 6 hours
5th Semester: MARK 5330 (Service Marketing Mgmt) and ECON 5333 (Health Care Economics) - 6 hours
6th Semester: HCAD 5390 (Strategic Management of Health Care Organizations) and HCAD 5399 (Internship/Research) - 6 hours

Total

145 hours.

Suggested Course Sequence

Freshman Year:
ENGL 1301, MATH 1315, CHEM 1441, BIOL 1441, HIST 1311 - 17 hours
ENGL 1302, MATH 1316, CHEM 1442, BIOL 1442, HIST 1312 - 17 hours

Sophomore Year:
ECON 2305, POLS 2311, CHEM 2181 and 2321, BIOL 3444 - 14 hours
CHEM 2182 and 2322, BIOL 3315, POLS 2312, INSY 2303 or BIOL 1450 - 13 or 14 hours

Junior Year:
PHYS 1441, ENGL or COMS 3302, BIOL elective (3 hours), advanced undergraduate business elective (3 hours), Fine Arts Elective (3 hours) - 16 hours
BIOL electives (7 hours), PHYS 1442, ENGL OR COMS 3302, advanced undergraduate business elective (3 hours) - 17 hours

Senior Year:
BIOL elective (3 hours), HCAD 5301, HCAD 5337, approved undergraduate business elective (3 hours) - 12 hours
ACCT 5301, FINA 5315, BIOL electives (9 hours) - 15 hours

Fifth Year:
HCAD 5310 and INSY 5350 - 6 hours
MANA 5340 and BSTAT 5315 - 6 hours

SixthYear:
MARK 5330 and ECON 5333 - 6 hours
HCAD 5390 and HCAD 5399 - 6 hours

Teacher Certification

A student interested in earning a Bachelor of Science degree with a major in biology with secondary teacher certification, or in biology or life-earth science as a second teaching field, should refer to the College of Education section of this catalog for teacher certification requirements and for biology courses recommended for each teaching field option.

Biology Faculty

Chair

Professor Campbell

Professors

Chippindale, Chrzanowski, Formanowicz, Frye, Grover, Neill, Robinson

Associate Professors

Bernard, Betran, Feschotte, Gough, Passy, Roner

Assistant Professors

Chang, Christensen, Demuth, Fondon, Melotto, Mydlarz, Pires da Silva, Pritham, Rodrigues, Smith-Urrutia

Lecturers

Badon, DeVito, Frederick, Henry, Meik, Nelson, Watson, Westmoreland, Wilk-Blaszczak

The Department of Chemistry and Biochemistry

130 Chemistry & Physics Building • Box 19065 • 817-272-3171
www.uta.edu/chemistry

Academic Advising: 817-272-3171

Overview

The Department of Chemistry and Biochemistry offers four programs of study leading to the bachelor's degree and one leading to both the bachelor's and master's degree. They are the Bachelor of Arts in Chemistry, the Bachelor of Science in Chemistry - American Chemical Society certified, the Bachelor of Science in Biochemistry - American Chemical Society certified, the Bachelor of Science in Biological Chemistry and a combined Bachelor of Science-Master of Science in Chemistry.

- Professional Chemist: Students who wish to become professional chemists or whose goals include graduate education in chemistry should pursue the Bachelor of Science in Chemistry - American Chemical Society certified. Alternatively, students may choose the Bachelor of Science-Master of Science combined program. Prospective students should contact the departmental undergraduate advisor.
- Professional Biochemist: Students who wish to become professional biochemists or whose goals include graduate education in biochemistry, should pursue the Bachelor of Science in Biochemistry - American Chemical Society certified. Prospective students should contact the departmental undergraduate advisor.
- Premedical and Predental Programs: Students who wish to prepare for entry into medical or dental school may choose to major in chemistry or biochemistry. While any of the four bachelor's programs will meet the minimum requirements, the department recommends either the Bachelor of Arts in Chemistry or the Bachelor of Science in Biological Chemistry. Prospective students should contact both the departmental undergraduate advisor and the premedical advisor in the College of Science.
- Preallied Health Programs: Students who wish to prepare for entry into pharmacy or veterinary school, nursing, medical technology, physical therapy, or occupational therapy may choose to major in chemistry. Prospective students should contact the departmental undergraduate advisor.
- Chemistry as a Teaching Field: Although students who intend to teach chemistry at the secondary school level may pursue any of the degrees, the Bachelor of Arts Degree offers the greatest flexibility.

Declaring a Major in Chemistry or Biochemistry

Beginning freshmen who intend to declare chemistry or biochemistry as a major must complete the following courses with a minimum GPA of 2.25 in chemistry and an overall GPA of 2.25.

- Chemistry 1441 and 1442.
- Six hours of mathematics approved by the department.
- Three hours of biology or geology.
- 12 hours from courses in the University core curriculum other than science or mathematics

(English, history, political science, social and cultural studies, and fine arts).

Transfer students who transfer part or all of the above requirements must complete a minimum of 11 hours of approved science and mathematics courses in residence with a minimum GPA of 2.25 to be eligible to major in chemistry or biochemistry.

All new students who intend to major in chemistry or biochemistry should schedule an appointment for advising with the departmental undergraduate advisor.

Declaring a Second Major in Chemistry or Biochemistry

A person who satisfies the requirements for any other baccalaureate degree qualifies for having chemistry named as a second major upon completion of 25 semester hours from among CHEM 2321, 2181, 2322, 2182, and chemistry courses with higher numbers. The specific courses to be used must be approved by the undergraduate advisor and the chair of the Department of Chemistry and Biochemistry.

Declaring a Minor in Chemistry

Students who wish to obtain a minor in Chemistry must take at least 18 semester hours of chemistry of which at least 6 semester hours must be at the 3000/4000 level. Only courses which satisfy a degree requirement for one of the degrees offered by the Department of Chemistry and Biochemistry may be used.

Requirements for a Bachelor of Science Degree in Chemistry - American Chemical Society Certified

This program meets the standards for professional baccalaureate programs established by the American Chemical Society. It is recommended to students who plan to enter into graduate study in chemistry and for those who anticipate professional careers as chemists.

English

ENGL 1301, 1302.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours at the 2000 level or above of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts, or philosophy, or technical writing.

Political Science

POLS 2311, 2312.

History

Six hours from HIST 1311, 1312, or 3364.

Social/Cultural Studies

Three hours of designated courses in archaeology, classical studies, communication, economics, history, humanities, linguistics, political science, social or cultural anthropology, social/political/cultural geography, social psychology, sociology, or women's studies.

Fine Arts

Three hours from architecture, art, dance, music or theatre arts.

Mathematics*

MATH 1323, 1426, 2425, 2326, and 3318 or 3319.

*A student not qualified to take MATH 1323 must complete the prerequisites for the course. This may add three to six hours to the total required for the degree.

Computer Literacy

A passing score on the University computer proficiency exam, or CSE 1301, BIOL 1450, or the equivalent.

Other Natural Science

PHYS 1443, 1444, and three hours of 3000/4000-level courses (PHYS 3313 recommended); six to eight hours of either biology or geology.

Electives

Sufficient to complete the total hours required for the degree.

Major

CHEM 1441, 1442, 2181, 2182, 2321, 2322, 2335, 2285, 3181, 3182, 3307, 3317, 3321, 3322, 4101, 4311, 4318, 4346, 4461.

In addition, all students are strongly encouraged to enroll in undergraduate research.

Total

120 hours, of which at least 36 must be 3000/4000 level.

Suggested Course Sequence

Freshman Year

First Semester:
CHEM 1441; MATH 1426; BIOL 1441 or GEOL 1425; ENGL 1301 - Total Credit 15 hours.

Second Semester:
CHEM 1442; MATH 2425; Biology, 4 hours, or GEOL 1426; ENGL 1302 - Total Credit 15 hours.

Sophomore Year

First Semester:
CHEM 2321; CHEM 2181; MATH 2326; PHYS 1443; Literature, 3 hours - Total Credit 14 hours.

Second Semester:
CHEM 2322; CHEM 2182; CHEM 2335; CHEM 2285; PHYS 1444; Fine Arts, 3 hours - Total Credit 16 hours.

Junior Year

First Semester:
CHEM 3321; CHEM 3181; MATH 3318 or 3319; Physics (3000/4000), 3 hours; POLS 2311; Electives, 2 hours - Total Credit 15 hours.

Second Semester:
CHEM 3322; CHEM 3182; CHEM 3317; POLS 2312; Social/Cultural Studies, 3 hours; Electives, 2 hours - Total Credit 15 hours.

Senior Year

First Semester:
CHEM 4311; CHEM 4318; CHEM 4461; CHEM 4101; HIST 1311; Elective, 1 hour - Total Credit 15 hours.

Second Semester:
CHEM 4346; CHEM 3307; HIST 1312; Liberal Arts Elective, 3 hours; Electives, 3 hours - Total Credit 15 hours.

Requirements for a Bachelor of Arts Degree in Chemistry

This program is suitable preparation for admission to medical and dental schools, and other health-related professions.

English

ENGL 1301, 1302.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours at the 2000 level or above of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing.

Modern and Classical Languages

14 hours in a single modern or classical language or eight hours in a language plus six hours from one liberal arts area cluster (see substitution list in introductory information for the College of Science).

Political Science

POLS 2311, 2312.

History

Six hours from HIST 1311, 1312, or 3364.

Social/Cultural Studies

Three hours of designated courses in archaeology, classical studies, communication, economics, history, humanities, linguistics, political science, social or cultural anthropology, social/political/cultural geography, social psychology, sociology, or women's studies.

Fine Arts

Three hours from architecture, art, dance, music or theatre arts.

Mathematics*

MATH 1426, 2425.

*A student not qualified to take MATH 1426 must complete the prerequisites for the course. This may add three to nine hours to the total required for the degree.

Computer Literacy

A passing score on the University computer proficiency exam, or CSE 1301, BIOL 1450, or the equivalent.

Other Natural Science

PHYS 1441 and 1442 and six to eight hours in either biology* or geology.

*The minimum biology requirement for premedical students is BIOL 1441 and three additional courses. Specifically, BIOL 3444 and 3345 are recommended plus three additional hours.

Electives

Sufficient to complete the total hours required for the degree.

Major

CHEM 1441, 1442, 2181, 2182, 2321, 2322, 2335, 2285, 3175, 3315, 3317, 4101, 4311, and at least two hours from 3307, 4242, 4312, 4318, or 4346.

In addition, all students are strongly encouraged to enroll in undergraduate research.

Total

124 hours, of which at least 36 must be 3000/4000 level.

Suggested Course Sequence

Freshman Year

First Semester:
CHEM 1441; MATH 1426; BIOL 1441 or GEOL 1425; ENGL 1301 - Total Credit 15 hours.

Second Semester:
CHEM 1442; MATH 2425; Biology, 4 hours, or GEOL 1426; ENGL 1302 - Total Credit 15 hours.

Sophomore Year

First Semester:
CHEM 2321; CHEM 2181; PHYS 1441; Literature, 3 hours; Elective, 3 hours - Total Credit 14 hours.

Second Semester:
CHEM 2322; CHEM 2182; CHEM 2335; CHEM 2285; PHYS 1442; Fine Arts, 3 hours - Total Credit 16 hours.

Junior Year

First Semester:
CHEM 3315; CHEM 3175; Modern Language, 4 hours; POLS 2311; Social/Cultural Studies, 3 hours - Total Credit 14 hours.

Second Semester:
CHEM 3317; Modern Language, 4 hours; POLS 2312; Liberal Arts Elective, 3 hours; Elective, 3 hours - Total Credit 16 hours.

Senior Year

First Semester:
CHEM 4311; CHEM 4101; Modern Language or Liberal Arts Cluster Course, 3 hours; HIST 1311; Electives, 5 hours - Total Credit 15 hours.

Second Semester:
Chemistry (3000/4000), 3 hours; Modern Language or Liberal Arts Cluster Course, 3 hours; HIST 1312; Electives, 6 hours - Total Credit 15 hours.

Requirements for a Bachelor of Arts Degree in Chemistry with Secondary Physical Science Teacher Certification

This program is suitable preparation for students who desire certification with a teaching field in chemistry.

English

ENGL 1301, 1302.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours at the 2000 level or above of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing.

Modern and Classical Languages*

Six hours in a single modern or classical language (Levels III and IV).

*A student not qualified to take Level III in a language must complete the prerequisites for the course. This may add three to six hours to the total required for the degree.

Political Science

POLS 2311, 2312.

History

Six hours from HIST 1311, 1312, or 3364.

Social/Cultural Studies

Three hours of designated courses in archaeology, classical studies, communication, economics, history, humanities, linguistics, political science, social or cultural anthropology, social/political/cultural geography, social psychology, sociology, or women's studies.

Fine Arts

Three hours from architecture, art, dance, music or theatre arts.

Mathematics*

MATH 1426, 2425.

*A student not qualified to take MATH 1426 must complete the prerequisites for the course. This may add three to nine hours to the total required for the degree.

Computer Science

EDTC 4301 fulfills the University requirement of competency in computer usage.

Physics

PHYS 1443, 1444, 1445, 2445, 3313 and 3445.

Education

EDUC 4341, 4342, 4352, 4647, 4300, 4301, 4343, EDML 4300, EDTC 4301, and LIST 4343.

Major

CHEM 1441, 1442, 2181, 2182, 2321, 2322, 2335, 2285, 3301 or 3315, 3307, 3317, 4101, 4311.

In addition, all students are strongly encouraged to enroll in undergraduate research.

Total

125 hours, of which at least 36 must be 3000/4000 level.

Suggested Course Sequence

Freshman Year

First Semester: CHEM 1441; MATH 1426; HIST 1311; ENGL 1301; POLS 2311 - Total Credit 17 hours.

Second Semester: CHEM 1442; MATH 2425; PHYS 1443; ENGL 1302 - Total Credit 15 hours.

Sophomore Year

First Semester: CHEM 2321; CHEM 2181; PHYS 1444; HIST 1312; Modern Language, 3 hours; EDML 4300 - Total Credit 17 hours.

Second Semester: CHEM 2322; CHEM 2182; CHEM 2335; CHEM 2285; Modern Language, 3 hours; PHYS 2445 - Total Credit 16 hours.

Junior Year

First Semester: CHEM 4101; CHEM 4311; POLS 2312; PHYS 1445; PHYS 3313; EDTC 4301 - Total Credit 17 hours.

Second Semester: CHEM 3317; CHEM 3301 or 3315; CHEM 3307; PHYS 3445; LIST 4343- Total Credit 16 hours.

Senior Year

First Semester: EDUC 4341; EDUC 4342; EDUC 4352; Literature, 3 hours; Social/Cultural Studies, 3 hours; - Total Credit 15 hours.

Second Semester: EDUC 4647; Fine Arts, 3 hours; Literature, 3 hours; - Total Credit 12 hours.

Requirements for a Bachelor of Science Degree in Biochemistry - American Chemical Society Certified

This program is recommended to students who plan to enter into graduate study in biochemistry and for those who anticipate professional careers as biochemists. This program is also suitable for premedical and predental students and for training in allied health sciences.

English

ENGL 1301, 1302.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours at the 2000 level or above of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing.

Political Science

POLS 2311, 2312.

History

Six hours from HIST 1311, 1312, or 3364.

Social/Cultural Studies

Three hours of designated courses in archaeology, classical studies, communication, economics, history, humanities, linguistics, political science, social or cultural anthropology,

social/political/cultural geography, social psychology, sociology, or women's studies.

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Mathematics*

MATH 1426, 2425, 2326.

*A student not qualified to take MATH 1426 must complete the prerequisites for the course. This may add three to nine hours to the total required for the degree.

Computer Literacy

A passing score on the University computer proficiency exam, or CSE 1301, BIOL 1450, or the equivalent.

Other Natural Science

PHYS 1443, 1444; BIOL 1441, 3444, 3315.

Electives

Sufficient to complete the total hours required for the degree.

Major

CHEM 1441, 1442, 2181, 2182, 2321, 2322, 2335, 2285, 3181, 3182, 3321, 3322, 4242, 4311, 4312, 4313 or 4316, 4314, 3317 or 4318, 4346, 4461.

In addition, all students are strongly encouraged to enroll in undergraduate research.

Total

120 hours, of which at least 36 must be 3000/4000 level.

Suggested Course Sequence

Freshman Year

First Semester:
CHEM 1441; MATH 1426; BIOL 1441; ENGL 1301 - Total Credit 15 hours.

Second Semester:
CHEM 1442; MATH 2425; ENGL 1302; Fine Arts, 3 hours; Elective, 1 hour - Total Credit 15 hours.

Sophomore Year

First Semester:
CHEM 2321; CHEM 2181; PHYS 1443; MATH 2326; Literature, 3 hours - Total Credit 14 hours.

Second Semester:
CHEM 2322; CHEM 2182; CHEM 2335; CHEM 2285; PHYS 1444; Social/Cultural Studies, 3 hours - Total Credit 16 hours.

Junior Year

First Semester:
CHEM 3321; CHEM 3181; CHEM 4311; BIOL 3444; HIST 1311; Elective, 1 hour - Total Credit 15 hours.

Second Semester:
CHEM 3322; CHEM 3182; CHEM 4312; CHEM 4242; BIOL 3315; HIST 1312 - Total Credit 15 hours.

Senior Year

First Semester:
CHEM 4313 or CHEM 4316; CHEM 4461; POLS 2311; Electives, 5 hours - Total Credit 15 hours.

Second Semester:
CHEM 4314; CHEM 4346; CHEM 3317;POLS 2312; Liberal Arts Elective, 3 hours - Total Credit 15 hours.

Requirements for a Bachelor of Science Degree in Biological Chemistry

This program is recommended to students who plan to enter into premedical and predental school and for training in allied health sciences. This program is also suitable for students who anticipate professional careers in the field of biotechnology or graduate training in biochemistry.

English

ENGL 1301, 1302.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours at the 2000 level or above of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing.

Political Science

POLS 2311, 2312.

History

Six hours from HIST 1311, 1312, or 3364.

Social/Cultural Studies

Three hours of designated courses in archaeology, classical studies, communication, economics, history, humanities, linguistics, political science, social or cultural anthropology, social/political/cultural geography, social psychology, sociology, or women's studies.

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Mathematics*

MATH 1426, 2425.

*A student not qualified to take MATH 1426 must complete the prerequisites for the course. This may add three to nine hours to the total required for the degree.

Computer Literacy

A passing score on the University computer proficiency exam, or CSE 1301, BIOL 1450, or the equivalent.

Other Natural Science

PHYS 1441, 1442; BIOL 1441, 1442, 3444, plus six hours from BIOL 3301, 3312, 3315, 3345.

Electives

Sufficient to complete the total hours required for the degree.

Major

CHEM 1441, 1442, 2181, 2182, 2321, 2322, 2335, 2285, 3175, 3315, 4242, 4311, 4312, 4313 or 4316, 4314, 3317 or 4318, 4461.

In addition, all students are strongly encouraged to enroll in undergraduate research.

Total

120 hours, of which at least 36 must be 3000/4000 level.

Suggested Course Sequence

Freshman Year

First Semester:
CHEM 1441; MATH 1426; BIOL 1441; ENGL 1301 - Total Credit 15 hours.

Second Semester:
CHEM 1442; MATH 2425; BIOL 1442; ENGL 1302; - Total Credit 15 hours.

Sophomore Year

First Semester:
CHEM 2321; CHEM 2181; PHYS 1441; Literature, 3 hours; Fine Arts, 3 hours; Elective, 1 hour - Total Credit 15 hours.

Second Semester:
CHEM 2322; CHEM 2182; CHEM 2335; CHEM 2285; PHYS 1442; Elective, 2 hours - Total Credit 15 hours.

Junior Year

First Semester:
CHEM 3315; CHEM 3175; CHEM 4311; BIOL 3444; HIST 1311; Elective, 1 hour - Total Credit 15 hours.

Second Semester:
CHEM 3317; CHEM 4312; CHEM 4242; BIOL 33XX; HIST 1312; Elective, 1 hour - Total Credit 15 hours.

Senior Year

First Semester:
CHEM 4313 or CHEM 4316; CHEM 4461; POLS 2311; Liberal Arts Elective, 3 hours; Elective, 2 hours - Total Credit 15 hours.

Second Semester:
CHEM 4314; BIOL 33XX; POLS 2312; Social/Cultural Studies, 3 hours; Elective, 3 hours - Total Credit 15 hours.

Requirements for a Combined B.S.-M.S. Degree in Chemistry

This program is recommended for students who wish to earn graduate level course credit and who wish to obtain graduate level research experience. This program is suitable for those students who plan to pursue doctoral graduate studies in chemistry and for those who anticipate professional careers as chemists.

English

ENGL 1301, 1302.

Literature

Three hours of English or modern and classical languages literature or other approved substitute.

Liberal Arts Elective

Three hours at the 2000 level or above of literature, or social and cultural studies designated as taught in the College of

Liberal Arts, or fine arts or philosophy, or technical writing.

Political Science

POLS 2311, 2312.

History

Six hours from HIST 1311, 1312, or 3364.

Social/Cultural Studies

Three hours of designated courses in archaeology, classical studies, communication, economics, history, humanities, linguistics, political science, social or cultural anthropology, social/political/cultural geography, social psychology, sociology, or women's studies.

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Mathematics*

MATH 1426, 2425, 2326, and 3318 or 3319.

*A student not qualified to take MATH 1426 must complete the prerequisites for the course. This may add three to six hours to the total required for the degree.

Computer Literacy

A passing score on the University computer proficiency exam, or CSE 1301, BIOL 1450, or the equivalent.

Other Natural Science

PHYS 1443, 1444, and three hours of 3000/4000-level courses (3313 recommended); six to eight hours of either biology or geology.

Electives

Sufficient to complete the total hours required for the degree.

Major

CHEM 1441, 1442, 2181, 2182, 2321, 2322, 2335, 2285, 3181, 3182, 3307, 3317, 3321, 3322, 4101, 4311, 4318, 4346, 4380, 4461; a minimum of 18 hours in graduate-level courses listed in the Graduate Catalog including 12 hours from 5301, 5309, 5311, 5315, and 5321.

Six hours of thesis.

Six hours of electives which may be senior or graduate-level courses in chemistry or in another science or engineering as selected by the candidate with the approval of the Graduate Advisor.

Minor

The required 15 hours of mathematics and 11 hours of physics constitute a combined minor.

Total

161 hours, including a minimum of 36 hours of 3000/4000-level courses counted as undergraduate credit.

Suggested Course Sequence

Freshman Year

First Semester:
CHEM 1441; MATH 1323; BIOL 1441 or GEOL 1425; ENGL 1301; CSE 1301 or 1306 or 1310 - Total Credit 17 hours.

Second Semester:
CHEM 1442; MATH 1426; Biology, 4 hours, or GEOL 1426; ENGL 1302 - Total Credit 15 hours.

Sophomore Year

First Semester:
CHEM 2321; CHEM 2181; MATH 2425; PHYS 1443; Liberal Arts Elective, 3 hours; Literature, 3 hours - Total Credit 18 hours.

Second Semester:
CHEM 2322; CHEM 2182; CHEM 2335; CHEM 2285; MATH 2326; PHYS 1444 - Total Credit 16 hours.

Junior Year

First Semester:
CHEM 3321; CHEM 3181; MATH 3318 or 3319; Physics (3000/4000), 3 hours; POLS 2311; Fine Arts, 3 hours - Total Credit 16 hours.

Second Semester:
CHEM 3322; CHEM 3182; CHEM 3317; POLS 2312; Social/Cultural Studies, 3 hours; Elective, 3 hours; select thesis advisor - Total Credit 16 hours.

Summer

First Term: CHEM 4380 - Total Credit 3 hours.
Second Term: CHEM 4380; Elective, 3 hours - Total Credit 6 hours.

Senior Year*

First Semester:
CHEM 4311; CHEM 4318; CHEM 4461; CHEM 4101; HIST 1311; Electives, 2 hours - Total Credit 16 hours.

Second Semester:
CHEM 4346; CHEM 3307; HIST 1312; Chemistry, 6 hours chosen from 5301, 5309, 5311, 5315, and 5321 - Total Credit 15 hours.

*Students progressing satisfactorily will be admitted to the Graduate School at the end of the senior year upon fulfilling admission requirements listed in the Graduate Catalog. Note that six hours of undergraduate credit will have to be reserved for graduate credit.

Summer

Chemistry (graduate-level), 3 hours - Total Credit 3 hours.

Graduate Year

First Semester:
Chemistry, 6 hours chosen from 5301, 5309, 5311, 5315, and 5321; Graduate Elective, 3 hours - Total Credit 9 hours.

Second Semester:
Graduate-Level Electives, 6 hours - Total Credit 6 hours.

Summer

Chemistry (thesis), 6 hours - Total Credit 6 hours.

Fast Track Program for the Bachelor of Science in Biochemistry and Master of Science in Biomedical Engineering

This program enables outstanding senior undergraduate students in Biochemistry to satisfy degree requirements leading to a master's (M. Engr.) degree in Biomedical Engineering while completing their undergraduate studies.

Undergraduate students at the end of their freshmen year who have completed CHEM 1441 and CHEM 1442 with a GPA of 3.0 and express an interest in the Fast Track Program will be designated as "BioChem-BE FAST TRACK BOUND" Students who have been identified as "BioChem-BE FAST TRACK BOUND" as well as other outstanding undergraduates in Biochemistry can apply for the Fast Track Program when they are within 30 hours of completing their bachelor degrees. They must have completed at least 30 hours at UTA, 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 10 hours of specified undergraduate Foundation Courses that are listed below with a GPA of 3.3 in these courses.

Foundation Courses Required for Admission into the Fast Track program:

BIOL 1441 - Cell and Molecular Biology;

CHEM 2321 - Organic Chemistry

Chem 4311 - General Biochemistry.

When senior-level students are within 15 hours of completing their undergraduate degree requirements, they may take up to 12 hours of graduate level coursework designated by the Biochemistry and Bioengineering Program to satisfy both undergraduate and graduate degree requirements. This will be the maximum amount of credit that can be used as joint credit.

Students pursuing the Fast Track master's degree must take courses specified by the Department of Biomedical Engineering.

Teacher Certification

Students interested in earning a Bachelor of Arts or Bachelor of Science degree with a major in chemistry with secondary teacher certification, chemistry as a concentration in the science composite certification, or in chemistry or physical science as a second teaching field should refer to the College of Education section of this catalog for teacher certification requirements.

Calculation of Chemistry Grade Point Average

Only chemistry courses required in the degree program will be used in calculating the chemistry grade point average for chemistry degree candidates.

Honors Program

Students who qualify are encouraged to participate in the University Honors College. Students should enroll in honors sections of chemistry courses when available and should include CHEM 4381 (Honors Research) as approved by the departmental undergraduate advisor.

Oral Communication and Computer Competency Requirements

For all chemistry degree programs, the university computer competency requirement will be met by taking appropriate course work (CSE 1301 recommended) or by passing the University computer proficiency examination.

The University oral communication competency requirement may be satisfied by taking CHEM 4101 (required for the Bachelor of Science degree in Chemistry, the Bachelor of Arts degree in Chemistry,

and the combined BS-MS degree in Chemistry) or by taking CHEM 4313 or 4314 (required for the Bachelor of Science degree in Biochemistry and the Bachelor of Science degree in Biological Chemistry).

Students should refer to the specific degree plans and the chemistry undergraduate advisor for details regarding these requirements.

Chemistry and Biochemistry Faculty

Chair

Professor Dasgupta

Professors

Armstrong, Bobbitt, Dias, Elsenbaumer, Lovely, MacDonnell, Pomerantz, Rajeshwar, Schelly, Timmons

Assistant Professors

Foss, Guan, Heo, Kroll, Mandal, O'Brien, Perera, Pierce, Schug

Research Associate Professor

Tacconi

Senior Lecturer

Rogers

Lecturer

Tanizaki

Professors Emeriti

Baker, Bellion, Benham, Francis, Marynick

The Department of Earth and Environmental Sciences

107 Geoscience Bldg. · Box 19049 · 817-272-2987
www.uta.edu/ees

Academic Advising: 107 Geoscience Bldg. · 817-272-2987

Overview

The Department of Earth and Environmental Sciences offers six programs of study.

The Bachelor of Science in Geology has three options:

1. The Professional Option is for those who plan to enter the profession or go to graduate school but are uncertain where they want to concentrate. The program emphasizes breadth and exposes students to most of the geological disciplines.

2. The Environmental Option emphasizes the application of Earth Science to environmental problems associated with the hydrosphere, atmosphere, and natural hazards.

3. The Engineering Geology Option is for those interested in combining Geology with a Civil Engineering minor to work with engineering firms on construction and environmental problems.

The Bachelor of Arts in Geology has two options:

1. The Geographic Information Systems Option is for those who want to combine Geology with computer technology to store and analyze spatial data using the GIS software.

2. General and Teacher Certification Option is for those who want teacher certification in Earth/Life Sciences or in Earth Science as well as those who want to combine Geology with other professional interests.

Certification in Geographic Information Systems is designed for those in other majors who want to become proficient in spatial data analysis, which is used in business, liberal arts, engineering and architecture disciplines.

Requirements for a Bachelor of Science Degree in Geology

The University's core curriculum, required for all bachelor's degrees, is explained under Degree Program Requirements in this catalog. In addition to the core curriculum, the requirements for each option are listed below.

Professional Option

Geology Requirements for the Major

1425 (Earth Systems)
1426 (Earth History)
2445 (Mineralogy)
2446 (Petrology)
3441 (Paleontology)
3442 (Sedimentology)
3443 (Structure)
3387 & 3388 (Field Geology)
4331 (Analysis of Spatial Data) or MATH 3316 (Statistical Inference) 4302, 4308, 4320 or 4402
Six hours of 4000 level courses approved by the advisor. No more than 3 hours may be from GEOL 4330, 4331, 4332, 4333, 4334.

Requirements for the Minor

18 hours in Biology, Chemistry, Mathematics, Physics, or Computer Science. Six hours must be upper division (3000/4000) courses approved by the advisor. A double minor requires 36 hours in any two of the aforementioned departments.

Natural Science other than Geology

A year of Biology, Chemistry, and Physics that includes BIOL 1441 and 1442; CHEM 1441 and 1442; PHYS 1441 or 1443, and 1442 or 1444.

Mathematics

1426 (Calculus I) and 2425 (Calculus II). The Math Department requires a placement exam before enrolling in Calculus I. Depending on the results of the placement exam, student may be required to take one or more of the following: College Algebra, Trigonometry, and Pre-calculus.

Computer Literacy

CSE 1301 or equivalent.

Oral Communication

COMM 3302 (also satisfies Liberal Arts elective) or pass oral presentation requirement in GEOL 3441 or 3443.

General Requirements

The University requires at least 120 total credit hours, of which 36 must be upper division hours.

Environmental Science Option

Geology Requirements for the Major

1425 (Earth Systems)
1426 (Earth History) or 2411 (Global Environmental Issues)
2445 (Mineralogy)
2446 (Petrology)
3305 and 3185 or 4405 (Meteorology)
3442 (Sedimentology)
3443 (Structure)
3387 and 3388 (Field Geology)
4308 (Environmental Geochemistry)
4320 (Hydrology)
4330 (Geographic Information Systems)
4331 (Analysis of Spatial Data) or MATH 3316 (Statistical Inference)

Requirements for the Minor

18 hours in Biology, Chemistry, or Civil Engineering. Six hours must be upper division (3000/4000) courses approved by the advisor. A double minor requires 36 hours in any two of the aforementioned departments.

Natural Science other than Geology

A year of Biology, Chemistry, and Physics that includes BIOL 1441 and 1442; CHEM 1441 and 1442; PHYS 1441 and 1442.

Mathematics

1426 (Calculus I) and 2425 (Calculus II) or 3316 (Statistics). The Math Department requires a placement exam before enrolling in Calculus I. Depending on the results of the placement exam, students may be required to take one or more of the following: College Algebra, Trigonometry, and Precalculus.

Computer Literacy

CSE 1301 or equivalent.

Oral Communication

COMM 3302 (also satisfies Liberal Arts elective) or pass oral presentation requirement in GEOL 3441 or 3443.

General Requirements

The University requires at least 120 total credit hours, of which 36 must be upper division hours.

Engineering Geology Option

Geology Requirements for the Major

1425 (Earth Systems)
1426 (Earth History)
2445 (Mineralogy)
2446 (Petrology)
3442 (Sedimentology)
3443 (Structure)
3387 and 3388 (Field Geology)
4308 (Environmental Geochemistry)
4320 (Hydrology)
4330 (Geographic Information Systems)

19 hours of advisor-approved Civil Engineering courses including 2312 (Statics and Dynamics), 3305 (Fluids), and 3311 (Materials). Six hours must be upper division (3000/4000) courses.

No minor is required for this option.

Natural Science other than Geology

A year of Chemistry and Physics that includes CHEM 1441 and 1442; PHYS 1443 and 1444.

Mathematics

1426 (Calculus I) and 2425 (Calculus II). The Math Department requires a placement exam before enrolling in Calculus I. Depending on the results of the placement exam, students may be required to take one or more of the following: College Algebra, Trigonometry, and Precalculus.

Computer Literacy

CSE 1301 or equivalent.

Oral Communication

COMM 3302 (also satisfies Liberal Arts elective) or pass oral presentation requirement in GEOL 3441 or 3443.

General Requirements

The University requires at least 120 total credit hours, of which 36 must be upper division hours.

Typical Course Sequence

(For students who are well-prepared for college level work at the time of admission, and who can devote 50-60 hours per week to study. All students are expected to see their academic advisor prior to enrollment each term.)

Freshman Year

First Semester: ENGL 1301; MATH 1325; GEOL 1425, 1391; HIST 1311 - 16 hours.

Second Semester: ENGL 1302; MATH 1426; CHEM 1441; GEOL 1426; HIST 1312 - 17 hours.

Sophomore Year

First Semester: English (literature), 3 hours; MATH 2425; CHEM 1442; GEOL 2445 - 14 hours.

Second Semester: BIOL 1441; POLS 2311; GEOL 2446; Social Science, 3 hours - 14 hours.

Junior Year

First Semester: PHYS 1441 or 1443; GEOL 3441 and 4331 or MMATH 3316; POLS 2312 - 14 hours.

Second Semester: GEOL 3442 and 3443; PHYS 1442 or 1444; BIOL 1442 - 16 hours.

Summer Session

GEOL 3387 and 3388 (Summer Field Course) 6 hours.

Senior Year

First Semester: Minor, 6 hours; Geology (elective), 3 hours; Fine Arts, 3 hours; Other Social Science or Fine Arts, 3 hours - 15 hours.

Second Semester: Minor, 6 hours; Geology Electives, 6 hours; Free Electives, 3 hours - 15 hours.

Requirements for a Bachelor of Arts Degree in Geology

The University's core curriculum, required for all bachelor's degrees, is explained under Degree Program Requirements in this catalog. In addition to the core curriculum, the major requirements are listed below.

General and Teacher Certification Option

Additional requirements for teacher certification are explained in the section for the College of Education.

Geology Requirements for the Major

1425 (Earth Systems)
1426 (Earth History)
2445 (Mineralogy)
2446 (Petrology)
3441 (Paleontology)
3442 (Sedimentology)
3443 (Structure)
MATH 1308 or MATH 3316

Six hours of advisor-approved 3000 and/or 4000 level courses.

Three hours of an advisor-approved 4000 level course.

Requirements for the Minor

18 hours in a single department of which six must be upper division.

Natural Science other than Geology

A year of Biology, Chemistry, and Physics that includes BIOL 1441 and 1442; CHEM 1441 and 1442; PHYS 1441 and 1442.

Mathematics

1324 (or 1302 and 1303), and 1308 or 3316.

Computer Literacy

CSE 1301 or equivalent.

Oral Communication

COMM 3302 (also satisfies Liberal Arts elective) or pass oral presentation requirement in GEOL 3441 or 3443.

General Requirements

The University requires at least 120 total credit hours, of which 36 must be upper division hours.

Geographic Information Systems Option

Geology Requirements for the Major

1425 (Earth Systems)
1426 (Earth History) or 2406 (Geologic Time)
2445 (Mineralogy)
2446 (Petrology)
3441 (Paleontology)
3442 (Sedimentology)
3443 (Structure)
4330 (Understanding GIS)
4331 (Analysis of Spatial Data)
4333 (Remote Sensing)
4334 (GIS Project)

Requirements for the Minor

18 hours of advisor-approved courses in a single department.

Natural Science other than Geology

A year of Biology, Chemistry, and Physics that includes BIOL 1441 and 1442; CHEM 1441 and 1442; PHYS 1441 and 1442.

Mathematics

1324 (or 1302 and 1303), and 1308 or 3316.

Computer Literacy

CSE 1301 or equivalent.

Oral Communication

COMM 3302 (also satisfies Liberal Arts elective) or pass oral presentation requirement in GEOL 3441 or 3443.

General Requirements

The University requires at least 120 total credit hours, of which 36 must be upper division hours.

Typical Course Sequence

(For students who are well-prepared for college level work at the time of admission, and who can devote 50-60 hours per week to study. All students are expected to see their academic advisor prior to enrollment each term.)

Freshman Year

First Semester: ENGL 1301; MATH 1324; GEOL 1425, 1391; HIST 1311 - 16 hours.

Second Semester: ENGL 1302; GEOL 1426; CHEM 1441; HIST 1312; POLS 2311 - 17 hours.

Sophomore Year

First Semester: English (literature), 3 hours; CHEM 1442; GEOL 4330; GEOL 2445; POLS 2312 - 17 hours.

Second Semester: Social Science, 3 hours; GEOL 4331; BIOL 1441; GEOL 2446 - 15 hours.

Junior Year

First Semester: GEOL 4333; GEOL 3441; MATH 3316; PHYS 1441; Minor, 3 hours - 17 hours.

Second Semester: GEOL 3442; GEOL 3443; Minor, 3 hours; PHYS 1442 - 15 hours.

Senior Year

First Semester: Minor, 6 hours; GEOL 4334; Geology Elective, 3 hours; Fine Arts, 3 hours - 15 hours.

Second Semester: Minor (3000/4000), 6 hours; Geology Elective, 3 hours; Liberal Arts Elective, 3 hours - 12 hours.

Requirements for Certification in Geographic Information Systems

This is a certification program and does not lead to a bachelor's degree. However, students can use these courses as a minor in their bachelor's degree program or as part of the B.A. in Geology degree program.

Geology Requirements

4330 (Understanding Geographic Information Systems)
4331 (Analysis of Spatial Data)

4333 (Analysis of Remotely Sensed Data)
4334 (Geographic Data Analysis Project)

Earth and Environmental Sciences Faculty

Chair

Professor Wickham

Professors

Holbrook, M. Nestell, Scotese

Assistant Professors

Hu, Hunt, Rowe, Winguth

Adjunct Professors

Damuth, Kotila, Lowell, G. Nestell, Shanmugam, C. Winguth

Adjunct Associate Professors

Deaton, Eisenstadt, Standlee

Lecturer

Mergele, Jackson

Professors Emeritus

Burkart, Balsam Ellwood, McNulty, Reaser, Smith

The Department of Mathematics

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Bachelor's Degrees in Mathematics

The Department of Mathematics offers programs leading to the Bachelor of Science Degree in Mathematics and the Bachelor of Arts Degree in Mathematics. The Bachelor of Science degree may also be acquired with the explicit addition of one of these options: industrial and applied mathematics, computer science, statistics, or management science/operations research.

The Bachelor of Science (no option) is primarily intended for students wishing to pursue graduate work in mathematics. The industrial and applied mathematics option is aimed at students seeking careers as mathematicians in the emerging high-tech industries. The mathematical biology option is aimed at those seeking careers in that emerging field. The statistics, management science/operations research, and actuarial science options are intended for students with an interest in a career involving various applications of mathematics to the world of business. The Bachelor of Arts is intended for those students desiring to teach mathematics at the elementary and secondary school level and for those seeking a traditional liberal arts education with an emphasis on mathematics.

All students seeking a bachelor's degree in mathematics must take at least two

mathematics sequences. A sequence is defined as a 3300-level course followed by a 4300-level course in the same general area of mathematics. The approved sequences are as follows: MATH 3321-4321 (Abstract Algebra), MATH 3335 and 4335 or 4334 (Analysis), MATH 3345-4345 (Numerical Analysis), MATH 3313-4313 (Probability and Statistics), MATH 3313-4311 (Probability and Random Processes), MATH 3314-4314 (Discrete Mathematics), MATH 3318-4324 (Differential Equations), and MATH 3318-4318 (Mathematical Methods for Sciences). For the statistics option, the second sequence must be MATH 3313-4311 or MATH 3313-4313. For the actuarial science option, the second sequence must be MATH 3335 and 4335 or 4334 or MATH 3345-4345.

It is strongly recommended that mathematics majors take MATH 3330 (Intro to Matrices and Linear Algebra) and MATH 3300 (Intro to Proofs) as early as possible, since these courses are prerequisites for many other 3000/4000-level courses. It is suggested to take MATH 3330 simultaneously with Calculus III. Mathematics majors must take MATH 3300 before attempting the required courses MATH 3321 and MATH 3335. It is strongly recommended that mathematics majors with little or no computer programming experience satisfy the computer programming requirements as early as possible with MATH 1319, CSE 1311, or 1320.

Teacher Certification

Students interested in earning a Bachelor of Arts degree with a major in mathematics with secondary teacher certification should refer to the College of Education section of this catalog for teacher certification requirements. Students should also see an advisor in the College of Education.

Requirements for a Bachelor of Science Degree in Mathematics

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute at the 2000 level or above.

Liberal Arts Elective

Technical Writing (ENGL 3373).

History

Six hours from 1311, 1312, and 3364.

Political Science

2311, 2312.

Social/Cultural Studies

Three hours of designated courses in social or cultural anthropology, archaeology, social/political/cultural geography, psychology, economics, sociology, classical studies, or linguistics.

Fine Arts

Three hours from architecture, art, DNCE 1300, music, or theatre arts.

Modern and Classical Languages

Eight hours (Levels I and II or higher) in one language.

Natural Science

PHYS 1443, 1444, and three hours from 2311, 3313, 3445. Eight hours in one other science; the choices are: CHEM 1441 and 1442, or BIOL 1441 and 1442, or GEOL 1425 and 1426. Each course may be replaced by another course in the same field that requires the original course as a prerequisite.

Computer Programming

Three hours from MATH 1319, CSE 1311, 1320, 1325.

Computer Literacy

Three hours from MATH 1319, CSE 1301, INSY 2303, or equivalent course approved by Undergraduate Advisor or competency test.

Oral Communication Competency

This is satisfied by the required course, MATH 3300.

Major

MATH 1426, 2425, 2326, 3300, 3318, 3330, 3321, 3335, 3313, 3345.
One course from 4321, 4335, 4334. Nine additional advanced hours (3301 or above, except for capstone mathematics courses specifically for prospective middle grades or secondary grades mathematics teachers), including a second sequence (see paragraph three in the opening section). Capstone mathematics courses specifically for prospective middle grade mathematics teachers do not count toward a degree in mathematics. Capstone mathematics courses for secondary mathematics teachers will count only for those working on the BA in Mathematics with Teaching Certification.

Minor

The student should consult the appropriate section in this catalog for the exact requirements for a minor in a given department or contact that department's undergraduate advisor.

Electives

Sufficient number of hours to complete the total hours required for a degree.

Total

A minimum of 120 hours, of which at least 39 must be 3000/4000 level.

Suggested Course Sequence

Freshman Year

First Semester: MATH 1426; INSY 2303; ENGL 1301; HIST 1311; Liberal Arts Elective, 3 hours - Total Credit 16 hours.

Second Semester: MATH 2425; MATH 3314; PHYS 1443; ENGL 1302; HIST 1312 - Total Credit 17 hours.

Sophomore Year

First Semester: MATH 2326; MATH 3330; PHYS 1444; English Literature, 3 hours; Social and Cultural Studies, 3 hours - Total Credit 16 hours.

Second Semester: MATH 3318; MATH 3300; Physics, 3 hours; Natural Science, 4 hours; Fine Arts, 3 hours - Total Credit 16 hours.

Junior Year

First Semester: MATH 3321 or MATH 3335; Minor, 3 hours; Natural Science, 4 hours; POLS 2311 - Total Credit 13 hours.

Second Semester: MATH 4321 or MATH 4335; Mathematics, 6 hours; Minor, 3 hours; POLS 2312 - Total Credit 14 hours.

Senior Year

First Semester: MATH 3335 or MATH 3321; Mathematics, 3 hours; Minor, 6 hours; Modern Language I, 4 hours - Total Credit 16 hours.

Second Semester: Mathematics, 6 hours; Minor, 6 hours; Modern Language II, 4 hours - Total Credit 16 hours.

Requirements for a Bachelor of Arts Degree in Mathematics

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute at the 2000 level or above.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing.

History

Six hours from 1311, 1312, and 3364.

Political Science

2311, 2312.

Social/Cultural Studies

Three hours of designated courses in social or cultural anthropology, psychology, archaeology, social/political/cultural geography, psychology, economics, sociology, classical studies, or linguistics.

Fine Arts

Three hours from architecture, art, DNCE 1300, music, or theatre arts.

Modern and Classical Languages

14 hours (Level I, II, III, and IV) in one language, or Level I and II and 6 hours of approved cultural studies. (See information in College of Science section).

Natural Science

A total of 14 hours is required. Eight hours including laboratory in one science; the choices are: PHYS 1443 and 1444; or CHEM 1441 and 1442; or BIOL 1441 and 1442; or GEOL 1425 and 1426. Each course may be replaced by another course in the same field that requires the original course as a prerequisite.

Six additional hours of science from the above science courses or from science courses that have above science courses as prerequisites.

Computer Literacy

Three hours from MATH 1319, CSE 1301, INSY 2303, or equivalent course approved by

Undergraduate Advisor, or competency test.

Oral Communication Competency

MATH 3300.

Computer Programming

Three hours from MATH 1319, CSE 1311, 1320, 1325.

Major

MATH 1426, 2425, 2326, 3300, 3314, 3330, 3321, 3335.
One course from 4321, 4335, 4334.
Nine additional advanced hours (3301 or above, except for capstone mathematics courses specifically for prospective middle or secondary grades mathematics teachers), including a second sequence (see paragraph three in the opening section). Capstone mathematics courses specifically for prospective middle grade mathematics teachers do not count toward a degree in mathematics. Capstone mathematics courses for secondary mathematics teachers will count only for those working on the BA in Mathematics with Teaching Certification.

Minor

The student should consult the appropriate section in this catalog for the exact requirements for a minor in a given department or contact that department's undergraduate advisor.

Electives

Sufficient number of hours to complete the total hours required for a degree.

Total

A minimum of 120 hours, of which at least 39 must be 3000/4000 level.

Suggested Course Sequence

Freshman Year

First Semester: MATH 1426; ENGL 1301; HIST 1311; INSY 2303; Modern Language I, 4 hours - Total Credit 17 hours.

Second Semester: MATH 2425; ENGL 1302; Natural Science, 4 hours; Modern Language II, 4 hours - Total Credit 15 hours.

Sophomore Year

First Semester: MATH 2326; MATH 3314; English Literature, 3 hours; Natural Science, 4 hours; Modern Language III, 3 hours - Total Credit 16 hours.

Second Semester: MATH 3300; MATH 3330; Liberal Arts Elective, 3 hours; Natural Science, 4 hours; Modern Language IV, 3 hours - Total Credit 16 hours.

Junior Year

First Semester: MATH 3321; Mathematics, 3 hours; Minor 3 hours; Natural Science, 4 hours; Social and Cultural Studies, 3 hours - Total Credit 16 hours.

Second Semester: MATH 4321; Mathematics, 3 hours; Minor, 3 hours; Fine Arts, 3 hours; Elective, 3 hours - Total Credit 15 hours.

Senior Year

First Semester: MATH 3335; Mathematics, 3 hours; Minor, 6 hours; POLS 2311; Elective, 3 hours - Total Credit 18 hours.

Second Semester: Mathematics, 3 hours; Minor, 6 hours; MATH 4180; HIST 1312; POLS 2312 - Total Credit 15 hours.

Requirements for a Bachelor of Science Degree in Mathematics (Actuarial Science Option)

English

Six hours of composition (1301 and 1302).

Literature

Three hours of English or modern and classical languages literature or other approved substitute at the 2000 level or above.

Liberal Arts Elective

Technical Writing (ENGL 3373).

History

Six hours from 1311, 1312, and 3364.

Political Science

2311, 2312.

Social/Cultural Studies

Econ 2305[1]

Fine Arts

Three hours from architecture, art, DNCE 1300, music, or theatre arts.

Modern and Classical Languages

Eight hours (Levels I and II or higher) in one language.

Natural Science

A total of 14 hours is required.

Eight hours including laboratory in one science; the choices are: PHYS 1443 and 1444; or CHEM 1441 and 1442; or BIOL 1441 and 1442; or GEOL 1425 and 1426. Each course may be replaced by another course in the same field that requires the original course as a prerequisite.

Six additional hours of science from the above science courses or from science courses that have above science courses as prerequisites.

Computer Literacy

Three hours from MATH 1319, CSE 1301, INSY 2303, or equivalent course approved by Undergraduate Advisor, or competency test (see http://www.uta.edu/uac/testing/computer-skills).

Oral Communication Competency

MATH 3300.

Computer Programming

Three hours from MATH 1319, CSE 1311, 1320, 1325.

Major

MATH 1426, 2425, 2326, 3300, 3302[2], 3313[3], 3314, 3316, 3330, 3345, 3321, 3335, 4312[3], 4313[2]
One course from 4335, 4334, 4345.

Capstone mathematics courses specifically for prospective middle grade mathematics teachers do not count toward a degree in mathematics. Capstone mathematics courses for secondary mathematics teachers will count only for those working on the BA in Mathematics with Teaching Certification.

Option

ECON 2306[1,4],ACCT 2302[4], FINA 3313[4,5], FINA 3315[5], FINA 4318[5], FINA 4319[5].

Total

A minimum of 120 hours, of which at least 39 must be 3000/4000 level.

Notes:

1. ECON 2305 and ECON 2306, passed with a B or better, together satisfy the Society of Actuaries requirement for VEE certification in Economics.

2. MATH 3302 and MATH 4313, passed with a B or better, together satisfy the Society of Actuaries requirement for VEE certification in Applied Statistical Methods. (Pending approval from the Society of Actuaries.)

3. MATH 3313 and MATH 4312 should prepare a student to pass Exam P of the Society of Actuaries Associateship Course Catalog.

4. FINA 3313, passed with a B or better, satisfies the Society of Actuaries requirement for VEE certification in Corporate Finance. This course has prerequisites: ACCT 2302 and ECON 2306.

5. FINA 3313, FINA 3315, FINA 4318, and FINA 4319 should prepare a student to pass Exam FM of the Society of Actuaries Associateship Course Catalog.

See www.soa.org for more details about VEE Certification and the Associateship Course Catalog.

Requirements for a Bachelor of Science Degree in Mathematics (Statistics Option)

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute at the 2000 level or above.

Liberal Arts Elective

Technical Writing (ENGL 3373).

History

Six hours from 1311, 1312, and 3364.

Political Science

2311, 2312.

Social/Cultural Studies

Three hours of designated courses in social or cultural anthropology, psychology, archaeology, social/political/cultural geography, psychology, economics, sociology, classical studies, or linguistics.

Fine Arts

Three hours in architecture, art, DNCE 1300, music, or theatre arts.

Modern and Classical Languages

Eight hours (Levels I and II or higher) in one language.

Natural Science

A total of 14 hours is required. Eight hours including laboratory in one science; the choices are: PHYS 1443 and 1444; or CHEM 1441 and 1442; or BIOL 1441 and 1442; or GEOL 1425 and 1426. Each course may be replaced by another course in the same field that requires the original course as a prerequisite.

Six additional hours of science from the above science courses or from science courses that have above science courses as prerequisites.

Computer Literacy

Three hours from MATH 1319, CSE 1301, INSY 2303, or equivalent course approved by Undergraduate Advisor, or competency test.

Oral Communication Competency

MATH 3300.

Computer Programming

Three hours from MATH 1319, CSE 1311, 1320, 1325.

Major

MATH 1426, 2425, 2326, 3300, 3302, 3303, 3313, 3314, 3316, 3330, 3345, 3321, 3335, 4311.
One course from 4321, 4335, 4334.

Three additional advanced hours (3301 or above, except for capstone mathematics courses specifically for prospective middle or secondary grades mathematics teachers) in mathematics. Capstone mathematics courses specifically for prospective middle grade mathematics teachers do not count toward a degree in mathematics. Capstone mathematics courses for secondary mathematics teachers will count only for those working on the BA in Mathematics with Teaching Certification.

Option

BSTAT 3322, IE 4308, and either IE 3315 or MATH 3304.

Electives

Sufficient to give the total number of hours required for a degree.

Total

A minimum of 120 hours, of which at least 39 must be 3000/4000 level.

Suggested Course Sequence

Freshman Year

First Semester: MATH 1426; MATH 1319; ENGL 1301; HIST 1311; Liberal Arts Elective, 3 hours - Total Credit 16 hours.

Second Semester: MATH 2425; MATH 3314; Natural Science, 4 hours; ENGL 1302; HIST 1312 - Total Credit 17 hours.

Sophomore Year

First Semester: MATH 2326; MATH 3330; English Literature, 3 hours; Social and Cultural Studies, 3 hours; Natural Science, 4 hours - Total Credit 16 hours.

Second Semester: MATH 3313; MATH 3316; Natural Science, 4 hours; MATH 3300; Fine Arts, 3 hours - Total Credit 16 hours.

Junior Year

First Semester: MATH 3335; MATH 3302; Natural Science, 4 hours; POLS 2311 - Total Credit 13 hours.

Second Semester: MATH 4335; MATH 4313; MATH 3303; Elective, 3 hours; POLS 2312 - Total Credit 15 hours.

Senior Year

First Semester: MATH 3345; Mathematics, 3 hours; STAT 3322; Modern Language I, 4 hours; Elective, 3 hours - Total Credit 16 hours.

Second Semester: MATH 3321; MATH 3304 or IE 3315; IE 4308; Modern Language II, 4 hours - Total Credit 13 hours.

Requirements for a Bachelor of Science Degree in Mathematics (Management Science/Operations Research Option)

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute at the 2000 level or above.

Liberal Arts Elective

Technical Writing (ENGL 3373).

History

Six hours from 1311, 1312, and 3364.

Political Science

2311, 2312.

Social/Cultural Studies

Three hours of designated courses in social or cultural anthropology, psychology, archaeology, social/political/cultural geography, psychology, economics, sociology, classical studies, or linguistics.

Fine Arts

Three hours from architecture, art, DNCE 1300, music, or theatre arts.

Modern and Classical Languages

Eight hours (Levels I and II or higher) in one language.

Natural Science

A total of 14 hours is required. Eight hours including laboratory in one science; the choices are: PHYS 1443 and 1444; or CHEM 1441 and 1442; or BIOL 1441 and 1442; or GEOL 1425 and 1426. Each course may be replaced by another course in the same field that requires the original course as a prerequisite.

Six additional hours of science from the above science courses or from science courses that have above science courses as prerequisites.

Computer Programming

Three hours from MATH 1319, CSE 1311, 1320, 1325.

Computer Literacy

Three hours from MATH 1319, CSE 1301, INSY 2303, or equivalent course approved by Undergraduate Advisor, or competency test.

Oral Communication Competency

MATH 3300.

Major

MATH 1426, 2425, 2326, 3300, 3303, 3304, 3313, 3314, 3330, 3321, 3335.
One course from 4321, 4335, 4334.
Nine additional advanced hours (3301 or above, except for capstone mathematics courses specifically for prospective middle or secondary grades mathematics teachers), including a second sequence (see paragraph three in the opening section). Capstone mathematics courses specifically for prospective middle grade mathematics teachers do not count toward a degree in mathematics. Capstone mathematics courses for secondary mathematics teachers will count only for those working on the BA in Mathematics with Teaching Certification.

Option

OPMA 3306, OPMA 3308, and three additional hours in Operations Management, ECON 2305, 2306, and ACCT 2301,2302.

Electives

Sufficient hours to complete the total hours required for a degree.

Total

A minimum of 120 hours, of which at least 39 must be 3000/4000 level.

Suggested Course Sequence

Freshman Year

First Semester: MATH 1426; MATH 1319; ENGL 1301; HIST 1311; Liberal Arts Elective, 3 hours - Total Credit 16 hours.

Second Semester: MATH 2425; MATH 3314; Natural Science, 4 hours; ENGL 1302; HIST 1312 - Total Credit 17 hours.

Sophomore Year

First Semester: MATH 2326; MATH 3330; English Literature, 3 hours; ECON 2305; Natural Science, 4 hours - Total Credit 16 hours.

Second Semester: MATH 3313; MATH 3304; Natural Science, 4 hours; MATH 3300; ECON 2306 - Total Credit 16 hours.

Junior Year

First Semester: MATH 3335; MATH 3303; ACCT 2301; Natural Science, 3 hours; POLS 2311 - Total Credit 15 hours.

Second Semester: MATH 4335; OPMA 3306; ACCT 2302; Fine Arts, 3 hours; POLS 2312; MATH 4180 - Total Credit 16 hours.

Senior Year

First Semester: MATH 3321; Mathematics, 3 hours; OPMA 3308; Advanced Bus., 3 hours; Modern Language I, 4 hours - Total Credit 16 hours.

Second Semester: Mathematics, 6 hours; OPMA, 3 hours; Advanced Bus., 3 hours; Modern Language II, 4 hours - Total Credit 16 hours.

Requirements for a Bachelor of Science Degree in Mathematics (Industrial and Applied Mathematics Option)

This degree option is for students seeking immediate employment after graduation. Additional course work may be required for admission to graduate school.

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute at the 2000 level or above.

Liberal Arts Elective

Technical Writing (ENGL 3373).

History

Six hours from 1311, 1312 and 3364.

Political Science

2311, 2312.

Social/Cultural Studies

Three hours of designated courses in social or cultural anthropology, psychology, archaeology, social/political/cultural geography, psychology, economics, sociology, classical studies, or linguistics.

Fine Arts

Three hours from architecture, art, DNCE 1300, music, or theatre arts.

Modern and Classical Languages

Eight hours (Levels I and II or higher) in one language.

Natural Science

PHYS 1443, 1444 and three hours from 2311, 3313, 3445, 2321. Eight hours in one other science; the choices are: CHEM 1441 and 1442, or BIOL 1441 and 1442, or GEOL 1425 and 1426. Each course may be replaced by another course in the same field that requires the original course as a prerequisite.

Computer Programming

CSE 1311 or MATH 1319.

Computer Literacy

Three hours from MATH 1319, CSE 1301, INSY 2303, or equivalent course approved by Undergraduate Advisor, or competency test.

Oral Communication Competency

MATH 3300.

Major

MATH 1426, 2425, 2326
MATH 3300, 3330, 3318
MATH 3345, 4345
MATH 3314, 4314
MATH 3335

Capstone mathematics courses specifically for prospective middle grade mathematics teachers do not count toward a degree in mathematics. Capstone mathematics courses for secondary mathematics teachers will count only for those working on the BA in Mathematics with Teaching Certification.

Option

MATH 3313 and MATH 4311
MATH 3316 and MATH 3302
MATH 3315
MATH 3304 and MATH 4304; or IE 3315 and IE 4315

Electives

Sufficient to bring total hours to 120 of which at least 39 must be 3000/4000 level.

Requirements for a Bachelor of Science Degree in Mathematics (Mathematical Biology Option)

English

Six hours of composition.

Literature

Three hours of English or modern and classical languages literature or other approved substitute at the 2000 level or above.

Liberal Arts Elective

Technical Writing (ENGL 3373).

History

Six hours from 1311, 1312, and 3364.

Political Science

2311, 2312.

Social/Cultural Studies

Three hours of designated courses in social or cultural anthropology, psychology, archaeology, social/political/cultural geography, psychology, economics, sociology, classical studies, or linguistics.

Fine Arts

Three hours from architecture, art, DNCE 1300, music, or theatre arts.

Modern and Classical Languages

Eight hours (Levels I and II or higher) in one language.

Natural Science

BIOL 1441 and 1442. Eight hours including laboratory in one other science; the choices are: PHYS 1443 and 1444; or CHEM 1441 and 1442; or GEOL 1425 and 1426. Each course may be replaced by another course in the same field that requires the original course as a prerequisite.

Computer Programming

Three hours from MATH 1319, CSE 1311, 1320, 1325.

Computer Literacy

Three hours from MATH 1319, CSE 1301, INSY 2303, or equivalent course approved by Undergraduate Advisor, or competency test.
(see http://www.uta.edu/uac/testing/computer-skills)

Oral Communication Competency

MATH 3300.

Major

MATH 1426, 2425, 2326, 3300, 3314, 3318, 3330, 3335, 3345, 4324, 4335, 4345

Capstone mathematics courses specifically for prospective middle grade mathematics teachers do not count toward a degree in mathematics. Capstone mathematics courses for secondary mathematics teachers will count only for those working on the BA in Mathematics with Teaching Certification.

Option

MATH/BIOL 2350, 3350, 3351, 4150; MATH 4311; BIOL 2343 and three additional hours from 3000/4000 level Biology courses.

Electives

Sufficient hours to complete the total hours required for a degree.

Total

A minimum of 120 hours, of which at least 39 must be 3000/4000 level.

Bachelor of Arts in Mathematics with Secondary Teaching Certification

English

Six hours of composition (1301 and 1302).

Literature

Six hours of English or modern and classical languages literature or other approved substitute at the 2000 level or above.

Liberal Arts Elective

Three hours above the freshman level of literature, or social and cultural studies designated as taught in the College of Liberal Arts, or fine arts or philosophy, or technical writing.

History

Six hours from 1311, 1312 and 3364.

Political Science

2311, 2312.

Social/Cultural Studies

Three hours of designated courses in social or cultural anthropology, psychology, archaeology, social/political/cultural geography, psychology, economics, sociology, classical studies, or linguistics; see http://uac.uta.edu/socialcultural.htm for a complete list of approved courses.

Fine Arts

Three hours from architecture, art, DNCE 1300, music, or theatre arts.

Modern and Classical Languages

10 hours (Levels II, III and IV) in one language, or Level II and 6 hours of approved cultural studies (see http://www.uta.edu/catalog/departments/science/science for a complete list of approved cultural studies).

Natural Science

A total of 12 hours is required.

Eight hours including laboratory in one science; the choices are: PHYS 1443 and 1444; CHEM 1441 and 1442; or BIOL 1441 and 1442; or GEOL 1425 and 1426. Each course may be replaced by another course in the same field that requires the original course as a prerequisite.

Four additional science hours taken from the above science courses.

Oral Communication Competency

MATH 3300.

Computer Programming

Three hours from MATH 1319, CSE 1311, 1320 or 1325.

Major

MATH 1323, 1426, 2425, 2326, 3300, 3301, 3307, 3314, 3330, 3321, 3335.
One course from 4321, 4335, 4334.
Six additional advanced hours (3302 or above, except MATH 4350 and MATH 4351), including either a second sequence or a capstone course specifically for prospective grades mathematics teachers.

Education Requirements

Certification requirements are subject to change; consult with an advisor in the College of Education to verify current requirements.

EDUC 4341, EDUC 4342, EDUC 4347, EDUC 4352, EDUC 4647, READ 4343, EDML 4300.

Total

A minimum of 120 hours, of which at least 39 must be 3000/4000 level.

Minor

A student may minor in mathematics by taking 18 hours of mathematics courses with an average GPA in mathematics courses of 2.0, and with at least six hours of 3000/4000 level courses. The courses which may be counted toward a math minor are MATH 1426 and above, except for capstone mathematics courses specifically for prospective middle or secondary grades mathematics teachers. Nine hours of the minor must be taken in residence.

Second Major

A student who satisfies the requirements for any other baccalaureate degree qualifies for having mathematics named as a second major upon completion of nine mathematics courses at 3000/4000 level (except for capstone mathematics courses specifically for prospective middle or secondary grades mathematics teachers). The following courses are required: 3300, 3314, 3330, 3321, 3335, and one from 4321, 4335, 4334. Besides the sequence 3321-4321 or the sequence 3335 and (4335 or 4334), a second sequence must be part of the second major. The GPA requirements on the mathematics courses for a second major are identical to

those listed below under the heading Graduation Requirements.

First-time Admission Requirements

Students who wish to apply for major status in mathematics must first complete the University and College of Science requirements and the specific requirements of the Department of Mathematics listed below.

- Overall GPA of 2.25;
- Minimum GPA of 2.25 in at least nine hours of mathematics courses in residence at the level of MATH 1426 or above, excluding capstone mathematics courses specifically for prospective middle or secondary grades mathematics teachers;
- At least six hours from the science or computer science courses listed in the mathematics degree plans; and
- Twelve hours of courses of the University core curriculum in disciplines other than science and mathematics.

Students currently enrolled at the University may qualify to change their major to mathematics by meeting the requirements listed above.

Satisfactory Academic Standard Requirement

Majors whose overall GPA or GPA in major courses falls below 2.25 will be required to change their major.

To re-enter as a mathematics major, the student must meet the requirements listed in the First-time Admissions Requirements section.

Non-Credit Courses

The following courses will not be counted for credit (as mathematics or electives) toward a bachelor's degree in mathematics: MATH 1301, 1302,1308, 1315, 1316, 1330, 1331, 1332, STAT 3321. Capstone mathematics courses specifically for prospective secondary grades mathematics teachers can be counted for credit only by those pursuing a B.A. with Secondary Teaching Certification.

Department of Mathematics Faculty

Chair

Professor Zhu

Professors

Aktosun, Chen-Charpentier, Dyer, Han, Liao, R. C. Li, C. Liu, Nestell, Su, Sun-Mitchell

Associate Professors

Cordero, Epperson, Gornet, Hawkins, Heath, D. Jorgensen, Korzeniowski, Kojouharov, Kribs-Zaleta, Y. Liu, Shipman, Vancliff

Assistant Professors

Ambartsoumian, Grantcharov, T. Jorgensen, Pankavich, Shan, Y. Li

Senior Lecturer

Krueger

Lecturers

Baker, Campbell, Ellington, Hamilton, Mitchell, Smith

Professors Emeritus

Corduneanu, Dragan, Greenspan, Moore

The Department of Physics

108 Science Hall • Box 19059 • 817-272-2266
www.uta.edu/physics

Academic Advising: 108 Science Hall • 817-272-2266

Overview

The Department of Physics offers three Bachelors of Science Degree programs and a Bachelor of Arts Degree program.

The Bachelor of Science Degree programs include one which prepares students for careers in science and technology, another for medical school preparation, and a third for students wanting to minor in an engineering discipline. The Bachelor of Arts Degree in physics is intended for those students who seek a broader education while retaining a firm foundation in physics. When combined with the required education courses, the Bachelor of Arts program is also appropriate for students interested in becoming school teachers.*

Students considering a physics major should schedule an appointment with an undergraduate advisor in physics to discuss their degree and career options. Physics majors are encouraged to participate in research projects under faculty guidance for course credit or financial reward. In this way, undergraduate students have the choice of gaining hands-on experience from a variety of research disciplines, including astrophysics, computational physics, high energy physics, optics, space physics, and theoretical and experimental condensed matter physics.

The faculty of the Physics Department encourages students who qualify to participate in the University Honors College. Scholarships may be offered every year to new students majoring in physics.

*Students desiring certification for teaching at the secondary level must fulfill certain requirements as prescribed in the Education section of this catalog.

Requirements for a Bachelor of Science Degree in Physics

English

Six hours of composition.

Literature

Three hours of literature or an approved substitution.

Liberal Arts Elective

Three hours of courses taught in the College of Liberal Arts.

U.S. History

Six hours of American history or three hours of American and three hours of Texas history. (This requirement is mandated by state law and cannot be waived.)

U.S. Political Science

Six hours covering U.S. and Texas constitutions. (This requirement is mandated by state law and cannot be waived.)

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Social/Cultural Studies

Three hours of designated courses (see Advising Center Web site).

Computer Science

Three hours from CSE 1306 (or higher numbered CSE course), PHYS 2321, MATH 3345, or other suitable course.

Natural Science other than Physics

CHEM 1441 and 1442, and a minimum of six hours from courses for majors offered in the departments of biology and/or earth and environmental sciences.

Math (Minor)

MATH 1426, 2425, 2326, 3318 or 3319, and a 4000-level course.

Physics (Major)

45 hours of physics including PHYS 1443, 1444, 2311, 3183, 3313, 3321, 4117, 4315, 4319, 4324, 4326, plus 14 additional hours of approved courses.

Electives and Total Hours

Sufficient to give the total of 120 hours, of which at least 36 must be advanced (3000/4000) level courses.

Typical Course Sequence

Details of a personal course sequence should be made with the guidance of an undergraduate advisor, particularly since many courses in physics are not offered every year. For all entering freshmen, it is important to begin the mathematics sequence, starting with MATH 1323, in the first semester.

Freshman Year

ENGL 1301 and 1302, HIST 1311 and 1312, MATH 1323 and 1426, CHEM 1441 and 1442, Fine Arts (3 hours), plus elective (3 hours).

Sophomore Year

MATH 2425 and 2326, PHYS 1443 and 1444, Biology and/or Geology (6-8 hours), POLS 2311 and 2312, ENGL 2309 (literature), Social/Cultural Studies (3 hours), Liberal Arts elective (3 hours).

Junior Year

MATH 3319, PHYS 2311, 3313, and 12 hours of advanced physics courses, plus elective (3 hours).

Senior Year

MATH 4320, PHYS 2321 and /or PHYS 2445 and/or CSE (3 hours), and 15 hours of advanced physics courses, plus elective (2 hours).

Requirements for a Bachelor of Science Degree in Physics with

Medical School Preparation

This program offers the broad background in fundamental science and strong problem solving ability of a physics degree as well as specific biology and chemistry medical school requirements. The combination of skills developed in this program is designed to provide the intellectual foundation necessary for excellence in research and the practice of medicine.

English

Six hours of composition.

Literature

Three hours of literature or an approved substitution.

Liberal Arts Elective

Three hours of courses taught in the College of Liberal Arts.

U.S. History

Six hours of American history or three hours of American and three hours of Texas history. (This requirement is mandated by state law and cannot be waived.)

U.S. Political Science

Six hours covering U.S. and Texas constitutions. (This requirement is mandated by state law and cannot be waived.)

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Social/Cultural Studies

Three hours of designated courses (see Advising Center Web site).

Computer Science

Three hours from CSE 1306 (or a higher numbered CSE course), PHYS 2321, MATH 3345, or other suitable course.

Chemistry

16 hours, consisting of CHEM 1441, 1442, 2181, 2182, 2321, and 2322.

Mathematics

14 hours, consisting of MATH 1426, 2425, 2326, 3319 (or 3318).

Biology (Minor)

18 hours, including BIOL 1441 and 1442, and six hours of 3000/4000-level courses.

Physics (Major)

36 hours including PHYS 1443, 1444, 2311, 3183, 3313, 3321, 4117, 4315, 4326, plus 11 additional hours of approved courses.

Electives and Total Hours

Sufficient to give the total of 120 hours, of which 36 hours must be in advanced (3000/4000-level) courses.

Requirements for a Bachelor of Science

Degree in Physics with Engineering Emphasis

This program allows the student to augment a rigorous training in physics with the choice of a minor in a suitable engineering discipline, thus combining a theoretical understanding of the basic physical theories with a practical more detailed understanding given in the College of Engineering. Such a combination would be a bonus for employment in the engineering-type professions often chosen by physics majors.

English

Six hours of composition.

Literature

Three hours of literature or an approved substitution.

Liberal Arts Elective

Three hours of courses taught in the College of Liberal Arts.

U.S. History

Six hours of American history or three hours of American and three hours of Texas history. (This requirement is mandated by state law and cannot be waived.)

U.S. Political Science

Six hours covering U.S. and Texas constitutions. (This requirement is mandated by state law and cannot be waived.)

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Social/Cultural Studies

Three hours of designated courses (see Advising Center Web site).

Computer Science

Three hours from CSE 1306 (or a higher numbered CSE course), PHYS 2321, MATH 3345, or other suitable course.

Natural Science other than Physics

CHEM 1441 and a minimum of four hours from courses for majors offered in the departments of chemistry, biology, or earth and environmental sciences

Mathematics

14 hours, consisting of MATH 1426, 2425, 2326, 3319 (or 3318).

Engineering (Minor)

18 or more hours as required by the appropriate engineering department, of which six hours must be 3000/4000-level courses.

Physics (Major)

40 hours including PHYS 1443, 1444, 2311, 3183, 3313, 3321, 4117, 4315, 4324, 4326, plus 12 additional hours of approved courses.

Electives and Total Hours

Sufficient to give the total of 120 hours, of which 36 hours must be in advanced (3000/4000-level) courses.

Requirements for a Bachelor of Arts Degree in Physics

English

Six hours of composition.

Literature

Three hours of literature or an approved substitution.

Liberal Arts Elective

Three hours of courses taught in the College of Liberal Arts.

U.S. History

Six hours of American history or three hours of American and three hours of Texas history. (This requirement is mandated by state law and cannot be waived.)

U.S. Political Science

Six hours covering U.S. and Texas constitutions. (This requirement is mandated by state law and cannot be waived.)

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Social/Cultural Studies

Three hours of designated courses (see Advising Center Web site).

Modern and Classical Languages

Four hours in a modern or classical language.

Natural Science other than Physics

Eight hours from courses offered to majors in the departments of biology, chemistry, and earth and environmental sciences.

Mathematics

14 hours, consisting of MATH 1426, 2425, 2326, 3319 (or 3318).

Computer Science

Three hours from CSE 1306 (or a higher numbered CSE course), PHYS 2321, MATH 3345, or other suitable course.

Minor

18 hours in a Liberal Arts or other appropriate discipline, of which six hours must be 3000/4000-level courses.

Physics (Major)

36 hours, including PHYS 1443, 1444, 2311, 3183, 3313, 3321, 4117, 4315, 4326, plus 11 additional hours of approved courses.

Electives and Total Hours

Sufficient to give the total of 120 hours, of which 36 hours must be in advanced (3000/4000-level) courses.

Requirements for a Bachelor of Arts Degree in Physics with Secondary Physical Science Teacher Certification

English

Six hours of composition.

Literature

Three hours of literature or an approved substitution.

U.S. History

Six hours of American history or three hours of American and three hours of Texas history. (This requirement is mandated by state law and cannot be waived.)

U.S. Political Science

Six hours covering U.S. and Texas constitutions. (This requirement is mandated by state law and cannot be waived.)

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Literature

Three hours of literature or an approved substitution.

Liberal Arts Elective

Three hours of courses taught in the College of Liberal Arts.

Social/Cultural Studies

Three hours of designated courses (see Advising Center Web site).

Modern and Classical Languages

Six hours in a modern or classical language, levels III and IV.

Chemistry

Twenty-two hours, consisting of CHEM 1441, 1442, 2181, 2182, 2321, 2322, and two courses from 3307, 3317, 4311, 4312 or 4318

Mathematics

Eight hours, consisting of MATH 1426 and 2425.

Education

Twenty-four hours, consisting of EDML 4300, EDTC 4301, READ 4343, EDUC 4341, 4342, 4352, and 4647

Physics (Major)

Thirty-six hours, consisting of PHYS 1443, 1444, 2311, 3183, 3313, 3321, 4117, 4315, 4326, plus 11 additional hours of approved courses.

Electives and Total Hours

Sufficient to give the total of 126 hours, of which 36 hours must be in advanced (3000/4000-level) courses.

Requirements for a Bachelor of Science Degree in Physics with a Master's Degree in

Materials Science and Engineering (Fast Track Program)

The Fast Track Program enables outstanding senior undergraduate students in Physics to satisfy degree requirements leading to a bachelor's degree in Physics while simultaneously pursuing a master's degree (M. Engr.) in Materials Science and Engineering. The essential elements of the Fast Track Program involve the use of up to 12 hours of graduate coursework to apply towards an undergraduate degree in Physics while simultaneously applying up to 9 hours of undergraduate coursework towards a graduate degree in Materials Science and Engineering. Thus, the program allows that up to 21 hours to be used to satisfy both undergraduate and graduate degree requirements. Additional details of the Fast Track Program are provided subsequently in this catalog section.

English

Six hours of composition.

Literature

Three hours of literature or of an approved substitute.

Liberal Arts Elective

Three hours of courses taught in the College of Liberal Arts.

U.S. History

Six hours of American history or three hours of American and three hours of Texas history. (This requirement is mandated by state law and cannot be waived.)

U.S. Political Science

Six hours covering U.S. and Texas constitutions. (This requirement is mandated by state law and cannot be waived.)

Fine Arts

Three hours from architecture, art, dance, music, or theatre arts.

Social/Cultural Studies

Three hours of designated courses in social or cultural anthropology, archaeology, social/political/cultural geography, economics, sociology, classical studies, linguistics, history, humanities, philosophy, communications or political science.

Computer Science

Six hours from CSE 1306 (or higher numbered CSE courses), PHYS 2321, or MATH 3345, which may also be used to satisfy physics and math requirements (but count only once towards the total hours).

Natural Science other than Physics

CHEM 1441, 1442 and a minimum of four hours from courses for majors offered in the Departments of Chemistry, Biology, or Geology.

Mathematics

14 hours, consisting of MATH 1426, 2425, 2326, and 3318 or 3319.

Materials Science and Engineering

12 hours, including MSE 3300 and nine hours from 3000/4000-level or graduate MSE courses.

Physics (Major)

41 hours, including PHYS 1443, 1444, 2311, 3183, 3313, 3321, 3445, 4117, 4315, and 4326, plus 12 additional hours of approved courses.

Electives

Sufficient to give the total of 120 hours, of which 36 hours must be in advanced (3000/4000-level) courses towards the undergraduate degree in Physics. Details of the requirements for the M.Engr. degree in Materials Science and Engineering are available in the graduate catalog.

Options Programs

The Department of Physics offers several options targeted for students majoring in other fields of science, engineering, mathematics, and music. These options are designed for students to develop their understanding of the fundamental properties of nature about which their vocations center.

The options and their course requirements are listed below. Some of the courses have prerequisites. Most students interested in these options will satisfy the prerequisites by virtue of their degree program.

In many cases, the prerequisites can be waived for students doing an option. Contact the undergraduate physics advisor for specific information.

1. Physics of Modern Technology	
PHYS 1444	General Technical Physics II
PHYS 3313	Modern Physics
PHYS 4315	Thermodynamics and Statistical Mechanics
PHYS 4325	Solid State Physics
2. Acoustics	
PHYS 1401	Physics for non-specialists I
PHYS 1402	Physics for non-specialists II
PHYS 1300	Acoustics
PHYS 4181 or 4281	Special Problems
3. Electrodynamics	
PHYS 1444	General Technical Physics II
PHYS 3321	Intermediate Electricity and Magnetism
PHYS 4324	Advanced Electricity and Magnetism
PHYS 2445 or 3445	Electronics or Optics

4. Mathematical Physics	
PHYS 2311	Mathematical Methods of Physics
PHYS 2321	Computational Physics
PHYS 3321 or 4315	Intermediate Electricity and Magnetism or Classical Mechanics
PHYS 4315 or 4326	Thermodynamics and Statistical Mechanics or Quantum Physics
5. Optics	
PHYS 1444	General Technical Physics II
PHYS 3313	Modern Physics
PHYS 3445	Optics
PHYS 4171 or 4271	Advanced Optics Laboratory
6. The Nature of the Universe	
PHYS 1444	General Technical Physics II
PHYS 3313	Modern Physics
PHYS 3315	Astrophysics and Cosmology
PHYS 3446	Nuclear and Particle Physics

Fast Track Program with BS in Physics and M.Engr. in Materials Science and Engineering

Students at the end of their freshman year who have completed PHYS 1443 and PHYS 1444 with a GPA of 3.0 and express an interest in the Fast Track Program will be designated as "Fast Track Bound" and encouraged to maintain a GPA of 3.0 or better to retain their eligibility. Students who have been identified as "Fast Track Bound" as well as other outstanding undergraduates in Physics can apply for the Fast Track Program when they are within 30 hours of completing their bachelor's degrees. They must have completed at least 30 hours at UTA, 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 9 hours of specified undergraduate Foundation Courses that are listed below with a GPA of 3.3 in these courses.

Foundation Courses Required for Admission into the Fast Track Program:	
MSE 3300	Introduction to Materials Science and Engineering
PHYS	Inroduction to Modern Physics

3313	
PHYS 3321	Intermediate Electricity and Magnetism

Once admitted, students will be allowed to take a mixture of advanced undergraduate and graduate courses that may be used to satisfy both bachelor's and master's degree requirements. Fast Track students can use up to 9 hours of undergraduate courses from the list below to apply towards their M.Engr. degree in Materials Science and Engineering as well as towards their BS degree in Physics:

Courses that may be used to satisfy both bachelor's and master's degree requirements	
PHYS 4315	Thermodynamics and Statistical Mechanics
PHYS 4319	Advanced Mechanics
PHYS 4324	Advanced Electricity and Magnetism
PHYS 4325	Solid State Physics
PHYS 4326	Introduction to Quantum Mechanics
MSE 4320	Nanoscale Materials

The balance of the 36 hours required for the M. Engr. degree is selected from an approved list of graduate Physics and Materials Science Engineering courses. For more details about the specifics of the program contact the Undergraduate Advisor in Physics or Graduate Advisor in Materials Science and Engineering.

Second Major

A person who satisfies the requirements for any other baccalaureate degree qualifies for having physics named as a second major upon completion of 26 semester hours from among PHYS 2311 and physics courses with higher numbers. The specific courses to be used must be approved by the undergraduate advisor and the chair of the Department of Physics.

Teacher Certification

Students interested in earning a Bachelor of Arts or Bachelor of Science degree with a major in Physics with secondary teacher certification, or in Physics as a second teaching field should refer to the College of Education section of this catalog for teacher certification requirements.

Oral Communication and Computer Competency Requirements

The university oral communication competency requirement will be met by the seminar course PHYS 4117, which includes an oral presentation. This course is required of all physics majors.

The university computer competency requirement may be satisfied by taking the Computer Proficiency Test administered by

UT Arlington or through CSE 1111 (or a higher numbered CSE course), PHYS 2321 or MATH 3345. For the BS and BA degrees, these requirements are automatically satisfied.

Physics Faculty

Chair (Interim)

Professor Weiss

Professors

Black, De, Fry, Koymen, Liu, Lopez, Musielak, Ray, Rubins, Sharma, White

Associate Professors

Brandt, Cuntz, Yu, Zhang

Assistant Professors

Chen, Farbin, Fazleev

Lecturer (full time)

Veerabathina

Lecturers (part time)

Spurlock, Kashefi

Adjunct Professors

Claytor, Missel, Rejcek, Schachar, Torti

Professors Emeritus

Diana, Self, Thompson

The Department of Psychology

313 Life Science Bldg. · Box 19528 · 817-272-2281
www.uta.edu/psychology

Academic Advising: 320 Life Science Bldg. · 817-272-0858

Overview

The Department of Psychology offers two programs of study leading to the bachelor's degree. It also offers courses of interest to the general public.

The Bachelor of Arts degree in psychology is for those who wish to obtain a broad liberal arts education with a concentration in psychology. It is also a preparation for graduate studies in psychology and many other fields.

The Bachelor of Science degree in psychology is intended for those students preparing for work and study in fields requiring more mathematics and sciences. It is also suitable for premedical and predental students. Students preparing for study in the health professions including medicine, dentistry, pharmacology, optometry, occupational therapy, and veterinary medicine should also be advised by the Health Professions Advisor in the office of the Dean of Science, Room 206, Life Science Building in order to meet the requirements of the corresponding professional schools.

Courses of general interest to the academic community include the following, which have no prerequisites:

- **1315.** Introduction to Psychology
- **2317.** Basic Concepts in Human Sexuality
- **3301.** Psychology of Human Relations

- **3302.** Business Psychology
- **3303.** Drugs and Behavior

Restrictions: Psychology courses, except those cross-listed with biology, cannot be used to fulfill any of the science requirements, and must be taken under a BIOL course number for that purpose.

For career information visit www.uta.edu/psychology/psychologycareers/careers.htm.

Requirements for a Bachelor of Science Degree in Psychology

The requirements to receive a Bachelor of Science Degree in Psychology can be achieved through degree plans under any one of six options (i.e., Option 1-BS in Psychology with a minor, Option 2- BS in Psychology with an Emphasis in Clinical Health, Option 3- BS in Psychology with an Emphasis in Neuroscience, Option 4- BS in Psychology with an Emphasis in Developmental Science, Option 5- BS in Psychology with an Emphasis in Social and Organizational Science, and Option 6 - BS in Psychology with an Emphasis in General Psychology). Before choosing a degree program under one of these options, please consult with the psychology undergraduate advisor.

English

Six hours of composition.

Literature

Three hours from English or modern and classical languages literature.

History

Six hours of American History, or three hours of American History and three hours of Texas History.

Computer Literacy

CSE 1301 or INSY 2303 or any equivalent course. Alternatively, the requirement may be met by passing the university computer proficiency test

Oral Communication Competency

COMS 1301, COMS 2305, COMS 3302 or equivalent courses approved by the Undergraduate Advisor.

Modern and Classical Languages*

Six hours from the Cultural Studies List as listed in the Handbook for Psychology Majors 2010 or levels III and IV of a modern or classical language. Three of the six hours also serves to satisfy the core curriculum requirement of a three-hour liberal arts elective above the freshmen level.

Mathematics*

1323 or 1325 and 1426.

Political Science

2311 and 2312 or any six hours meeting the legislative requirement.

Fine Arts

Three hours of designated courses in architecture, art, dance, music, or theatre arts.

Social/Cultural Studies**

Three hours of designated courses in social or cultural anthropology, archaeology, social/political/cultural geography, sociology, classical studies, or linguistics. The Social and Cultural Studies requirement will be satisfied by designated courses which have been approved by the Undergraduate Assembly. For a list of approved courses, contact the University Advising Center or see http://uac.uta.edu/socialcultural.htm. **

Other Natural Science

A total of 15 hours including two of the following sequences, or one of these sequences plus an additional seven hours in the same discipline: BIOL 1441 and 1442, or CHEM 1441 and 1442, or GEOL 1425 and GEOL 1426, or PHYS 1443 and 1444, or PHYS 1441 and 1442.

Major

36hours to include: 1315, 2443, 2444, 3315, 3322, and 3334; one three-hour lecture course from each of the Groups I, II, one three-hour course from either Group I, II, or III; and one four-hour advanced topics course from either Group I, II, or III.

Lecture Groups (three hours from each group and three additional hours from any group)
I. 3310, 3311, 3312, 3313, 3314, 3319.
II. 3320, 3326, 3329, 4301, 4309, 4325, 4327, 4329.
III. 3316, 3317, 3318, 4303, 4310, 4332, 4337, 4339, 4357.

Advanced Topics course (four hours)

I. 4410, 4411, 4412,
II. 4420 4421
III. 4430, 4431, 4432

Minor or Emphasis

Either a minor of 18 hours in a discipline other than psychology or 18 hours in one of the emphasis options must be chosen.

Minor

Information about minors can be found in the undergraduate catalog in the section for the desired minor.

Emphasis

An emphasis is a specialization in a particular area of Psychology. Course offerings in the different emphasis options are listed below. At least 18 hours of coursework must be taken in the chosen emphasis.

Emphasis in Clinical Health Psychology
PSYC 3304 Analysis and Management of Behavior
PSYC 3317 Introduction to Clinical and Counseling Psychology
PSYC 3351 Practicum in Applied Behavior Analysis
PSYC 3318 Abnormal Psychology
PSYC 4306 Major Personality Disorders
PSYC 4309 Neuropharmacology
PSYC 4310 Behavior Therapy
PSYC 4357 Health Psychology
PSYC 4398 Honors Thesis***
PSYC 4430 Advanced Topics in Clinical and Counseling
PSYC 4431 Advanced Topics in Cognitive Science
PSYC 4432 Advanced Topics in Health Psychology
PSYC 4181, 4281, 4381, 4161, 4261, 4361 Research or Readings***

Emphasis in Neuroscience
PSYC 3329 Behavioral Endocrinology
PSYC 3356 Evolutionary Psychology
PSYC 4301 Introduction to Neuroscience
PSYC 4309 Neuropharmacology

PSYC 4325 Developmental Psychobiology
PSYC 4327 Behavioral Genetics
PSYC 4338 Cognitive Neuropsychology
PSYC 4357 Health Psychology
PSYC 4398 Honors Thesis***
PSYC 4411 Advanced Topics in Neuroscience
PSYC 4432 Advanced Topics in Health
PSYC 4181, 4281, 4381, 4161, 4261, 4361 Research or Readings***

Emphasis in Developmental Science
PSYC 3310 Developmental Psychology
PSYC 3311 Adulthood and Aging
PSYC 3312 Social & Personality Development
PSYC 3319 Psychology of Adolescence
PSYC 4325 Developmental Psychobiology
PSYC 4335 Cognitive Development
PSYC 4398 Honors Thesis***
PSYC 4410 Advanced Topics in Developmental Psychology
PSYC 4181, 4281, 4381, 4161, 4261, 4361 Research or Readings***

Emphasis in Social and Organizational Science
PSYC 3301 Psychology of Human Relations
PSYC 3302 Business Psychology
PSYC 3313 Gender and Cultural Diversity
PSYC 3314 Psychology of Personality
PSYC 4332 Theories of Human Learning and Memory
PSYC 4337 Psychology of Testing
PSYC 4359 Selected Topics in Psychology
PSYC 4398 Honors Thesis***
PSYC 4411 Advanced Topics in Personality
PSYC 4412 Advanced Topics in Social Psychology
PSYC 4181, 4281, 4381, 4161, 4261, 4361 Research or Readings***

Emphasis in General Psychology
Any 18 hours of psychology 3000 or 4000 level coursework***

Electives

Sufficient hours to complete the total required for the degree.

Total

120 hours, of which at least 36 must be 3000/4000 level.

*Prerequisites may add hours to the total required for the degree.

**Psychology majors may not use psychology courses to meet this requirement.

***A total of 6 hours of research, readings credit and honor's thesis may be applied to a given emphasis.

Suggested Course Distribution for Bachelor of Science Degree with Minor[1]

Freshman Year

First Semester: ENGL 1301; MATH 1323; HIST 1311; PSYC 1315; Natural Science[2], 4 hours - Total Credit 16 hours.

Second Semester: ENGL 1302; MATH 1426; HIST 1312; Natural Science[2], 4 hours; computer competency, 3 hours - Total Credit 17 hours.

Sophomore Year

First Semester: PSYC 2443; Natural Science[2], 4 hours; POLS 2311; Fine Arts, 3 hours - Total Credit 14 hours.

Second Semester: PSYC 2444; Natural Science[2], 3 hours; POLS 2312; Social Cultural requirement, 3 hours - Total Credit 13 hours.

Junior Year

First Semester: PSYC 3315, 3 hours; PSYC 3322, 3 hours; Advanced Topics Course , 4 hours; Modern Language III or substitution, 3 hours; Advanced Electives, 2 hours- Total Credit 13 hours.

Second Semester: PSYC 3334, 3 hours; Psychology Lecture Group I, 3 hours; Advanced Psychology Emphasis Lecture or Course for Minor, 3 hours; Modern Language IV or substitution, 3 hours; Literature, 3 hours - Total Credit 15 hours.

Senior Year

First Semester: Lecture Group II, 3 hours; Advanced Psychology, Emphasis Lecture or Courses for Minor (3 courses), 9 hours; Literature, 3 hours - Total Credit 15 hours.

Second Semester: Psychology Lecture Group III, 3 hours; Advanced Psychology Emphasis Lecture or Courses for Minor (2 courses), 6 hours; COMS 3302; 3 hours; Advanced General Elective, 3 hours - Total Credit 15 hours.

[1] These are suggestions only. See your academic advisor for an actual degree worksheet.
[2] See catalog for acceptable courses.

Requirements for a Bachelor of Arts Degree in Psychology

The requirements to receive a Bachelor of Arts Degree in Psychology can be achieved through degree plans under any one of six options (i.e., Option 1-BA in Psychology with a minor, Option 2- BA in Psychology with an Emphasis in Clinical Health, Option 3- BA in Psychology with an Emphasis in Neuroscience, Option 4- BA in Psychology with an Emphasis in Developmental Science, Option 5- BA in Psychology with an Emphasis in Social and Organizational Science, or Option 6 - BA in Psychology with an Emphasis in General Psychology). Before choosing a degree program under one of these options, please consult with the psychology undergraduate advisor and faculty associated with the chosen option.

English

Six hours of composition.

Literature

Three hours from English or modern and classical languages literature.

Modern and Classical Languages*

14 hours in a single modern or classical language or eight hours in a language plus six hours from the Cultural Studies List as listed in the Handbook for Psychology Majors or levels III and IV of a modern or classical language. Three of the six hours also serves to satisfy the core curriculum requirement of a three-hour liberal arts elective above the freshmen level.

History

Six hours of American History, or three hours of American History and three hours of Texas History.

Computer Literacy

CSE 1301 or INSY 2303 or any equivalent course. Alternatively, the requirement may be met by the University computer proficiency test.

Oral Communication Competency

COMS 1301, COMS 2305, COMS 3302 or equivalent courses approved by the Undergraduate Advisor.

Mathematics*

Six hours: 1302 or 1315, and 1303 or 1316 or 3 hours of MATH approved by the Undergraduate Advisor, or 1324 and three additional hours of MATH approved by the Undergraduate Advisor.

Political Science

2311 and 2312 or any six hours meeting the legislative requirement.

Fine Arts

Three hours of designated courses from architecture, art, dance, music, or theatre arts.

Social/Cultural Studies**

Three hours of designated courses in social or cultural anthropology, archaeology, social/political/cultural geography, sociology, classical studies, or linguistics.

Natural Science

Eleven hours, including eight hours from one of: BIOL 1333, 1334, 1282; CHEM 1445; GEOL 1426; PHYS 1401 and 1402 or any sequence listed in Other Science in the Bachelor of Science degree in psychology, plus three hours in Science approved by the Undergraduate Advisor.

Major

33 hours to include 1315, 2443, 2444, 3315, 3322, and 3334; one three-hour lecture course from each of the Groups I, II, and III; and one four-hour advanced topics course from either Group I, II, or III.

Lecture Groups (one substitution may be made); nine three-hour course from each group)
I. 3310, 3311, 3312, 3313, 3314, 3319
II. 3320, 3326, 3329, 4301, 4309, 4325, 4327, 4329.
III. 3316, 3317, 3318, 4310, 4311, 4332, 4337, 4339, 4357

Advanced Topics course (four hours of)
I. 4410, 4411, 4412
II. 4420, 4421
III. 4430, 4431, 4432

Minor or Emphasis

Either a minor of 18 hours in a discipline other than psychology or 18 hours in one of the emphasis options must be chosen.

Minor

Information about minors can be found in the undergraduate catalog in the section for the desired minor.

Emphasis

An emphasis is a specialization in a particular area of Psychology. Course offerings in the different emphasis options are listed below. At least 18 hours of coursework must be taken in the chosen emphasis.

Emphasis in Clinical Health Psychology
PSYC 3304 Analysis and Management of Behavior
PSYC 3317 Introduction to Clinical and Counseling Psychology
PSYC 3351 Practicum in Applied Behavior Analysis
PSYC 3318 Abnormal Psychology
PSYC 4306 Major Personality Disorders

PSYC 4309 Neuropharmacology
PSYC 4310 Behavior Therapy
PSYC 4357 Health Psychology
PSYC 4398 Honors Thesis***
PSYC 4430 Advanced Topics in Clinical and Counseling
PSYC 4431 Advanced Topics in Cognitive Science
PSYC 4432 Advanced Topics in Health Psychology
PSYC 4181, 4281, 4381, 4161, 4261, 4361 Research or Readings***

Emphasis in Neuroscience
PSYC 3329 Behavioral Endocrinology
PSYC 3356 Evolutionary Psychology
PSYC 4301 Introduction to Neuroscience
PSYC 4309 Neuropharmacology
PSYC 4325 Developmental Psychobiology
PSYC 4327 Behavioral Genetics
PSYC 4338 Cognitive Neuropsychology
PSYC 4357 Health Psychology
PSYC 4398 Honors Thesis***
PSYC 4411 Advanced Topics in Neuroscience
PSYC 4432 Advanced Topics in Health
PSYC 4181, 4281, 4381, 4161, 4261, 4361 Research or Readings***

Emphasis in Developmental Science
PSYC 3310 Developmental Psychology
PSYC 3311 Adulthood and Aging
PSYC 3312 Social & Personality Development
PSYC 3319 Psychology of Adolescence
PSYC 4325 Developmental Psychobiology
PSYC 4335 Cognitive Development
PSYC 4398 Honors Thesis***
PSYC 4410 Advanced Topics in Developmental Psychology
PSYC 4181, 4281, 4381, 4161, 4261, 4361 Research or Readings***

Emphasis in Social and Organizational Science
PSYC 3301 Psychology of Human Relations
PSYC 3302 Business Psychology
PSYC 3313 Gender and Cultural Diversity
PSYC 3314 Psychology of Personality
PSYC 4332 Theories of Human Learning and Memory
PSYC 4337 Psychology of Testing
PSYC 4359 Selected Topics in Psychology
PSYC 4398 Honors Thesis***
PSYC 4411 Advanced Topics in Personality
PSYC 4412 Advanced Topics in Social Psychology
PSYC 4181, 4281, 4381, 4161, 4261, 4361 Research or Readings***

Emphasis in General Psychology
Any 18 hours of psychology 3000 or 4000 level coursework***

Electives

Sufficient hours to complete the total required for the degree.

Total

120 hours, of which at least 36 must be 3000/4000 level.

*Prerequisites may add hours to the total required for the degree.

**Psychology majors may not use psychology courses to meet this requirement.

***A total of 6 hours of research, readings credit and honor's thesis may be applied to a given emphasis.

Suggested Course Distribution for Bachelor of Arts Degree[1]

Freshman Year

First Semester: ENGL 1301; MATH 1302; PSYC 1315; Natural Science[2], 4 hours; Fine Arts, 3 hours - Total Credit 16 hours.

Second Semester: ENGL 1302; MATH 1303; Natural Science[2], 4 hours; computer

competency, 3 hours; Social Cultural requirement, 3 hours - Total Credit 16 hours.

Sophomore Year

First Semester: PSYC 2443; HIST 1311; Modern Language I, 4 hours; POLS 2311 - Total Credit 14 hours.

Second Semester: PSYC 2444; HIST 1312; Modern Language II, 4 hours; POLS 2312 - Total Credit 14 hours.

Junior Year

First Semester: PSYC 3315, 3 hours; PSYC 3322, 3 hours; Advanced Topics course, 4 hours; Modern Language III or substitution, 3 hours; Advanced Electives, 2 hours - Total Credit 15 hours.

Second Semester: PSYC 4333, 3 hours; Psychology Lecture Group I, 3 hours; Advanced Psychology Emphasis Lecture or Course for Minor3, 3 hours; Modern Language IV or substitution, 3 hours; Literature, 3 hours - Total Credit 15 hours.

Senior Year

First Semester: Psychology Lecture Group II, 3 hours; Advanced Psychology Emphasis Lecture or Courses for Minor (3 courses) 3, 9 hours; Natural Science[2], 3 hours - Total Credit 15 hours.

Second Semester: Psychology Lecture Group III, 3 hours; Advanced Psychology Emphasis Lecture or Courses for Minor (2 courses), 6 hours; COMS 3302; 3 hours; Advanced General Elective, 3 hours - Total Credit 15 hours.

[1] These are suggestions only. See your academic advisor for an actual degree worksheet.

[2] See catalog for acceptable courses.

[3] See catalog or handbook for course options.

Acceptance Requirements for a Major in Psychology

Students who wish to apply for major status in psychology must first meet the University and College of Science requirements for admission to major status and the specific requirements of the Department of Psychology listed below.

- Minimum GPA of 2.25 in at least eleven hours of psychology courses taken in residence which must include PSYC 2443 and 2444.
- At least six hours from the science or computer science courses listed in the psychology degree plans.
- Twelve hours of courses of the University core curriculum in disciplines other than science and psychology.

Students currently enrolled at the University may qualify to change their major to psychology by meeting the requirements listed above depending on their current status.

Academic Probation (College of Science): Majors whose overall GPA or GPA in major courses falls below 2.25 will be placed on probation and must consult with the Department Advisor prior to enrolling in additional courses.

Admission to Upper-Level Laboratory Courses: To enroll in the upper-level laboratory courses, (PSYC 3142, 3143, 3144, 3145, 3146, 3420, 3431), the student must make a C or better in both PSYC 2443 and

2444 or equivalent courses, and (except for PSYC 3420 and 3431, which are 4-credit courses) must have completed or be concurrently enrolled in the associated upper-division lecture course.

Multiple Majors

To qualify psychology as part of a multiple major, it is necessary to complete the requirements for a B.S. major or a B.A. major in psychology, plus the requirements for another major. Both majors must be either B.A. or B.S. The diploma and transcript will reflect both majors.

Distinguished Scholars in Psychology

The Department of Psychology offers a Distinguished Scholars program in psychology. This program is intended to provide students with the opportunity for intellectual and professional development that will take them beyond the requirements of the basic B.A. or B.S. degrees. Thus, the program serves to promote and acknowledge the special achievements of participating students.

To qualify, the student must have completed 30 hours with a grade point average of 3.0 or better in residence at UT Arlington, including 10 hours in psychology, with a minimum grade point average of 3.5 or better. The student does background reading and designs a study with a faculty sponsor in PSYC 4361, then performs the research project and writes an honors thesis in PSYC 4398. In most cases, the six hours of Distinguished Scholar credit will not increase the total hours necessary to complete the B.A. or B.S. degree.

Qualified students or students who believe they may qualify should contact the undergraduate advisor as soon as possible after completing PSYC 2444.

Psychology Faculty

Chair

Professor Gatchel

Professors

Baum, Ickes, Levine, Mellgren, Paulus

Associate Professors

Fuchs, Jackson, Jensen-Campbell, Kopp, Lin, Mann, Peng

Assistant Professors

Basco, Dougall, Kenworthy, Mora, Odegard, Park, Perrotti, Scielzo

Visiting Assistant Professors

Bryant, Lopez

Professors Emeritus

Cox, Erickson

The School of Social Work

Interim Dean: Philip Popple, Ph.D.
211 S. Cooper St., Social Work Complex · Box 19129 · 817-272-3647
www.uta.edu/ssw · sswbsw@uta.edu

Overview

Undergraduate Social Work education at The University of Texas at Arlington is based

on a set of premises. Responsible citizenship and professional Social Work practice recognize and respond to the realities of a complex and diverse society that is in continual need of constructive social change predicated on social justice. To this end, Social Work students are expected to demonstrate the capacity to critically evaluate their cultural environment and, in so doing, demonstrate analytical skills and understanding both orally and in writing. Students are required to adhere to the Codes of Ethics as currently published by the National Association of Social Workers and the Texas State Board of Social Worker Examiners in their professional practice and in their course work. The faculty of the School of Social Work enhances this process through its commitment to teaching excellence, scholarly activities, research, and community and professional service.

The Bachelor of Social Work degree program of the School of Social Work is fully accredited by the Council on Social Work Education. Its primary educational objective is to prepare students for beginning professional Social Work practice. The sequence of courses, designed to include academic Social Work and field experience requirements in a liberal arts context, enables the student, upon graduation, to work in a variety of social service agencies and settings. A secondary purpose of the program is preparation for graduate study in Social Work or another profession or discipline for which baccalaureate Social Work education would be appropriate.

Requirements for a Bachelor of Social Work Degree

English Composition

ENGL 1301 and 1302.

Literature

English literature course, 2000 level or above.

Liberal Arts Elective

English literature course, 2000 level or above.

History

HIST 1311 and 1312.

Political Science

POLS 2311 and 2312.

Mathematics

MATH 1301 or higher; and 1308.

Natural Science

BIOL 1333, 1334, and 1282.

Social/Cultural Studies

ANTH 1306 or 2322.

Fine Arts

ART, DNCE, MUSI, THEA or other fine arts as approved.

Modern and Classical Languages (11 hours)

SPAN 1441, 1442 and 2313. (Recommended)

Economics

Any three-hour course. ECON 2337 (Recommended).

Computer

Any 3 hour technology/computer course.

Psychology

PSYC 1315, and any upper division course such as 3318 (or some other), but not 3310.

Speech

COMS 1301 or approved substitute.

Sociology

SOCI 1311

Social Science Statistics

SOCI 3352 OR SOCW 3325

Social Work

SOCW 2311, 2313, 3301, 3302, 3303, 3304, 3305, 3306, 4251, 4451, 4252, 4452.

Electives

Sufficient to give the 120 hours required for the degree. No more than four hours of activity (EXSA/DNCA) can be used toward a degree for either hours or GPA.

Total

120 hours, at least 36 of which must be upper division courses (3000/4000 level).

Suggested Course Sequence

Please refer to the BSW Degree Plan for more specific information.

First Year

First Semester: ENGL 1301; HIST 1311; BIOL 1333; SOCI 1311; MATH 1301 or 1302 - Total Credit 15 hours.

Second Semester: ENGL 1302; HIST 1312; BIOL 1334 and 1282; PSYC 1315; MATH 1308 - Total Credit 17 hours.

Second Year

First Semester: English, 3 hours; POLS 2311; SPAN 1441; Fine Arts, 3 hours; SOCW 2311 - Total Credit 16 hours.

Second Semester: English, 3 hours; POLS 2312; SPAN 1442; SOCW 2313; COMS 1301 - Total Credit 16 hours.

Note: To continue in the Social Work Undergrad Program students MUST apply for and be accepted to the Social Work Major prior to beginning their 3rd year.

Third Year

First Semester: SOCW 3301; SOCW 3303; SPAN 2313; ECON; SOCI 3352 OR SOCW 3325 - Total Credit 15 hours.

Second Semester: Anthropology, 3 hours; SOCW 3302; SOCW 3304; PSYC (3000+) level, 3 hours (Not PSCY 3310); SOCW 3305 - Total Credit 15 hours.

Note: Students MUST contact Social Work's Office of Field Placement prior to beginning their 4th year.

Fourth Year

First Semester: SOCW 4251 and 4451; SOCW 3306; Any 3 hour technology/computer

course; Elective(s) 3 hours - Total Credit 15 hours.

Second Semester: SOCW 4252 and 4452; Electives, 5 hours - Total Credit 11 hours.

Admission to the BSW Program

Admission to the BSW program requires:

- Overall GPA of 2.0 or better
- Completion of 12 hours in residence at UT Arlington
- Completion of SOCW 2311 with a grade of C or better
- Completion of 40 hours of courses, including:
  -
    - English 1301 and 1302
    - Math 1301 & Math 1308 or higher
    - Psychology 1315
    - Sociology 1311
    - Political Science 2311 (United States Government)
- Completion of the BSW Admission Application Form
- Submission of a personal statement

The application and personal statement are submitted to the BSW Program office. Both will be reviewed by an advisor and the program director. Students will be notified of eligibility within two weeks of submitting their application.

Transfer of Credit

BSW student transcripts are evaluated by the UT Arlington Office of Admissions. Courses that meet the liberal arts requirements of the BSW degree are applied to the degree plan. Other courses are designated as electives. The student receives credit for Social Work courses from CSWE-accredited Social Work programs. The exceptions are SOCW 3304, Direct Practice II, and the practicum courses, SOCW 4251, 4252, 4451, and 4452 which must be completed at UT Arlington. No credit is given for life or work experience.

Continuation Through the BSW Program

Continuation through the BSW Program and eligibility for entry into Field requires:

- 2.5 average in all Social Work courses and no grade lower than a C
- Acceptable evaluations in all Social Work courses
- 2.0 overall grade point average
- Satisfactory evaluation from the 2313 instructor and from the supervisor of the volunteer experience required for 2313.
- Ability to qualify for state licensure in the state of Texas upon completion of the academic program (i.e., no disqualifying factors) under the Texas Professional Social Worker Act.

Field Work Requirements

The BSW Program requires two consecutive semesters of field experience in a single human-service agency. Students enroll in the field instruction course (SOCW 4451, first semester; 4452, second semester) and complete 240 clock hours per semester in their assigned agency. Concurrent enrollment in a weekly two-hour, on-campus seminar (SOCW 4251, first semester; 4252, second semester) is also required. Field placements are arranged early in the preceding semester, after students are formally advised by BSW program advisors as to field eligibility. Eligible students may begin field any

semester (see the specific requirements for CPS Field).

All Social Work students enrolling in Field Instruction courses will be assessed a fee in order to include them in the school's group professional liability insurance policy. Coverage is for a $1,000,000 limit each claim and $3,000,000 limit aggregate.

Volunteer Experience

A requirement of Social Work Practice I (SOCW 2313) is completion of 25 hours of volunteer experience in a human service agency during the semester. Arrangements for these volunteer experiences are made with the course instructor. Students enrolling in SOCW 2313 are also assessed a fee for coverage by a group malpractice insurance policy while they are completing the 25 hours of required volunteer work.

Computer and Oral Competencies

Social Work students will demonstrate competence in computer usage by successfully completing a 3 hour technology/computer class or a course approved by the academic advisor. Oral communication skills will be demonstrated by successful completion of COMS 1301, or a suitable substitute.

School of Social Work Faculty

Dean

Dr. Scott Ryan

Associate Dean

Dr. Fran Danis

Professors

Black, Elliott, Granvold, Hegar, Hernandez, Hoefer, Hunter, Jordan, Pillai, Popple, Ryan, Scannapieco, Schoech, Watts

Associate Professors

Barrett, Basham, Cobb, Danis, Lehmann, Moon, Rycraft, Woody, Yu

Assistant Professors

Aguirre, Boyas, Kang, Mitschke, Page, Smith-Osborne, Spence-Almaguer, Watson

Interdisciplinary Studies

209 University Hall · Box 19419 · 817-272-2338
www.uta.edu/ints

Overview

The undergraduate Interdisciplinary Studies Program (INTS) offers both the Bachelor of Arts (BAIS) and the Bachelor of Science (BSIS) degrees. These are individualized degrees that allow students to develop broad academic themes or topics that fall outside the usual departmental boundaries. Students work closely with an INTS Academic Advisor to design a rigorous and coherent program that meets the University's academic standards, contributes to professional growth, and/or prepares for future graduate study. All applicants must have a minimum GPA of 2.25.

Application Procedure

Students at UT Arlington changing majors or students transferring from other institutions must attend an orientation session prior to being admitted into the program and having a degree plan built. At the orientation meeting, an Advisor will review the program application procedure and help students complete the required forms. After this meeting, the student will schedule a meeting with an Advisor to build a degree plan.

The approved degree plan, transcript, and diploma will carry the designation Bachelor of Arts or Bachelor of Science in Interdisciplinary Studies.

Requirements for the Bachelor of Arts and Bachelor of Science Degrees in Interdisciplinary Studies

Total Hours Required for Graduation for BA and BS Degrees: 120 Hours

Of these, at least 36 hours must be at the 3000/4000 level, 18 of which must be from UT Arlington. A minimum of 18 hours (included in the 36) must be in the Area of Concentration (see below), while the remaining 18 hours may appear in other areas of the degree plan.

Bachelor of Arts Degree in Interdisciplinary Studies, General Requirements

English

1301 and 1302.

Literature

Three hours of English literature or modern and classical languages literature.

INTS Core Requirements

2301 Interdisciplinary Perspectives.
4301 Interdisciplinary Process.
4391 Interdisciplinary Capstone.

History

1311 and 1312.

Political Science

2311 and 2312.

Mathematics

Six hours (level of College Algebra or higher).

Science

Eight hours in a single lab science from Biology, Chemistry, Geology, or Physics.

Fine Arts

Three hours from an approved course list available from an INTS Advisor.

Social Cultural Studies

Three hours from an approved course list available from an INTS Advisor.

Modern and Classical Languages (14 hours) or Liberal Arts Cultural Courses (12 hours)

See an INTS Advisor for a list of approved cultural courses.

Electives

Sufficient hours to complete the total required for the degree (120).

Area of Concentration

Each Interdisciplinary Studies degree plan has an interdisciplinary Area of Concentration that reflects the student's academic, professional or career interest. The Area of Concentration contains at least two "Components," each consisting of courses selected by the student in consultation with the Advisor that clearly relate to the focus of the degree plan. A *minimum* of 36 hours is required in the Area of Concentration and must include a minimum of 18 hours of 3000/4000 level course work. Twelve hours of the 18 must be from UT Arlington. Course work from any single discipline (outside the General Requirements) may not exceed 18 hours.

Examples of Areas of Concentrations constructed for a BA degree plan in previous years include Childcare Facility Management, Classical Studies, Construction Management, Entrepreneurship, Environmental Studies, Human Resource Administration, International Studies, Legal Studies, Information Technology, Landscape Design, Medical/Pharmaceutical Sales, Seminary Preparation, Sports Management, Urban Studies, Youth Studies and Web Design. For a more extensive list of concentrations, see an INTS Advisor.

Bachelor of Science Degree in Interdisciplinary Studies, General Requirements

English

1301 and 1302.

Literature

Three hours of English literature or modern and classical languages literature.

INTS Core Requirements

2301 Interdisciplinary Perspectives.
4301 Interdisciplinary Process.
4391 Interdisciplinary Capstone.

History

1311 and 1312.

Political Science

2311 and 2312.

Mathematics

Nine hours (level of College Algebra or higher).

Science

Eleven hours from Biology, Chemistry, Geology, or Physics. Eight hours must be from a single lab science.

Fine Arts

Three hours from an approved list from Art, Music, Dance, Theatre Arts, Classical Studies, Honors, or Architecture.

Social Cultural Studies

Three hours from an approved course list available from an INTS Academic Advisor.

Electives

Sufficient hours to complete the total required for the degree (120). Students are encouraged to choose elective courses that will strengthen and support their Area of Concentration.

Area of Concentration

Each Interdisciplinary Studies degree plan has an interdisciplinary Area of Concentration that reflects the student's academic, professional or career interest. The Area of Concentration contains *at least* two "Components," each consisting of courses selected by the student in consultation with the Advisor that clearly relate to the focus of the degree plan. A *minimum* of 36 hours is required in the Area of Concentration and must include a minimum of 18 hours of 3000/4000 level course work. Twelve hours of the 18 must be from UT Arlington. Course work from any single discipline (outside the General Requirements) may not exceed 18 hours.

For the Bachelor of Science degree, at least 18 hours in the Area of Concentration must be "science-for-science majors" course work; at least 12 of these must be at the 3000/4000 level.

Examples of Areas of Concentration constructed for a BS degree plan in previous years include Landscape Design, Medical/Pharmaceutical Sales, Physician Assistant, and Pre-Med, Pre-Dental, and Pre-Veterinary. For a more extensive list of science-oriented concentrations, see an INTS Advisor.

Competence in Computer Use for BA and BS Degrees

Graduating students must be proficient in the use of computers. Proficiency is understood as the ability to use word-processing, database/spreadsheet, and the representative software of one's Area of Concentration. Each student must be able to effectively utilize the communications, analytical, and information-retrieval potential of computers to solve problems and be able to evaluate the results. Students have two options to satisfy this requirement: (1) passing the Computer Proficiency Test in the Assessment Services office, or (2) taking a computer proficiency course that directly relates to their Area of Concentration (see Advisor for recommendations).

Competence in Oral Proficiency for BA and BS Degrees

Students must have proficiency in oral communication skills, including interaction in classroom settings, to meet the needs of course work and the use of acceptable grammar and pronunciation in formal presentations. Students must take an oral proficiency course that directly relates to their Area of Concentration. Students should consult with their Academic Advisor for course suggestions.

Honors Degree in INTS

INTS students who wish to graduate with an Honors Degree in Interdisciplinary Studies must be members of the Honors College in good standing. They must complete the INTS degree program requirements and the requirements of the Honors College. Contact an INTS Advisor for further information.

Cooperative Programs of Study

INTS has cooperative programs of study with various academic units, including the Center for Mexican American Studies, the

School of Urban and Public Affairs, and the Program in Landscape Architecture. Students wanting information about these programs should consult with their Advisor

Fast-Track BA in Interdisciplinary Studies-MA in Urban Affairs

Exemplary students can begin coursework toward earning an MA in Urban Affairs while still finishing their undergraduate BA in INTS. The MA in Urban Affairs is a multidisciplinary degree, drawing primarily from the disciplines of sociology, political science, and economics [POST LINK TO MA IN URBAN AFFAIRS IN GRADAUTE CATALOGUE]

Program Overview

Students who are within 30 hours of completing the bachelor's degree and have completed INTS 2301, INTS 4301, and INTS 4388 (Special Topics: Justice, Democracy, and Metropolitan Environments), may apply for admission into the fast track program. To be considered for the program, students must have achieved at least a GPA of 3.25 overall and a GPA of 3.50 in INTS 2301, INTS 4301, and INTS 4388. Once fully admitted into the program, students may take nine hours of graduate-level courses, including URPA 5302 (Foundations of Urban Research and Analysis), URPA 5304 (The Urban Political System) or URPA 5309 (Intergovernmental Relations), URPA 5305 (Theories of Urban Society), and URPA 5306 (Urban Economics). These nine credit hours of graduate-level course work will count toward the 120 credit hour requirement for the BA in INTS as well as toward the 39-42 credit hour requirement of the MA in Urban Affairs. Students will earn the BA in INTS once their undergraduate work is completed, regardless where they are in terms of completing the MA in Urban Affairs, and students will need to complete the BA in INTS before taking additional courses toward the MA in Urban Affairs. Students must earn at least a B in all graduate level courses taken as an undergraduate to continue in the MA program.

Program Details

Student will complete the General Requirements for the BA in INTS, including INTS 4391 (Interdisciplinary Capstone). Students electing to pursue the Fast-Track program should choose from the following areas to fulfill their Interdisciplinary Areas of Concentration requirements. Fast-track students must have four Areas of Concentration, including Urban Affairs.

Required Component: Urban Affairs

INTS 4388: Special Topics: Justice, Democracy, and Metropolitan Environments.
URPA 5302: Foundations of Urban Rresearch and Analysis.

Select 2 of the following

URPA 5304: The Urban Political System or
URPA 5309: Intergovernmental Relations.
URPA 5305: Theories of Urban Society.
URPA 5306: Urban Economics.

Elecive Component: Urban Crime and Criminology (minimum 12 hours)

CRCJ 3300: Theoretical Criminology.
CRCJ 3338: Juvenile Justice System.
CRCJ 3380: Ethnic and Gender in Criminal Justice.
CRCJ 3385: Women and Crime.
CRCJ 4301: The Amrican Judicial System.
CRCJ 4360: Crime and Public Policy.

POLS 3335: Criminal Law.
SOCI 3312: Juvenile Delinquency.
SOCI 3315: Social Psychology of Crime.
SOCI 3320: Deviance: Social and Personal.
SOCI 4315: Violence in Society.

Elecive Component: Urban Economics (minimum 12 hours)

ECON 2305: Introduction to Macroeconomics.
ECON 2306: Introduction to Microeconomics.
ECON 2337: Economics of Social Issues.
ECON 3301: Economics of Health.
ECON 3302: Economics of Crime.
ECON 3312: Macroeconomics.
ECON 3335: Economics Public Policies.
ECON 4330: Labor Economics.

Elecive Component: Urban Life (minimum 12 hours)

ANTH 2355: Rise of Civilization.
ANTH 3330: Cultural Diversity and Identity.
ANTH 3339: Urban Anthropology.
HIST 2302: History of Civilization.
HIST 3351: History of the Dallas-Fort Worth Metroplex.
HIST 3362: Cities and Suburbs in the United States History.
HIST 3366: African-American History, 1865-present.
MAS 3310: Latinos in the United Statest.
SOCW 3317: Human Behavior and Diverse Populations.

Elecive Component: Urban Politics (minimum 12 hours)

POLS 3305: Government in Urban America.
POLS 3307: Comparative State and Local Politics.
POLS 3308: Politics of a Texas City: Arlington City Politics.
POLS 3311: Public Opinion.
POLS 3312: Introduction to Public Policy Analysis.
POLS 3313: Modern Critics of Society and Politics.
POLS 3330: Judicial Behavior and the Judicial Process.
POLS 4303: Public Administration and the Political Procees.
POLS 4317: Ethnic Group Politics in the United States.
POLS 4318: Politics of African Americans.
POLS 4319: Politics of Mexican Americans.
SOCI 3350: Power and Bureaucracy.

Elecive Component: Urban Sociology (minimum 12 hours)

SOCI 3317: Individuals and Society.
SOCI 3323: Riots, Fads, Cults, and Social Movements.
SOCI 3327: Intercultual Interaction.
SOCI 3336: Social Inequality.
SOCI 3353: Social Climate of Cities.
SOCI 3357: Law and Society.
SOCI 4310: Minorities.
SOCI 4318: Social Change and Conflict.
SOCW 3301: Human Behavior and the Social Environment.

Faculty

Dean

Dr. Barbara Becker

Director

Dr. Stuart Henry

Assistant Professors

Dr. Michan Connor

Dr. James Welch IV

The School of Urban and Public Affairs

Dean: Barbara Becker, Ph.D.
501C University Hall · Box 19588 ·
817-272-3071
www.uta.edu/supa

Overview

The School of Urban and Public Affairs offers two undergraduate degrees and two undergraduate minors as follows:

- BA, Interdisciplinary Studies
- BS, Interdisciplinary Studies
- Minor, Urban and Public Affairs (with emphasis areas in Public Administration, Urban Affairs and Public Policy, and Urban Planning and the Environment)
- Minor, Environmental and Sustainability Studies

Faculty

Dean

Professor Becker

Professors

Anjomani, Barrett, Cole, Henry

Associate Professors

Arvidson, Audirac, Hissong, Li, Martinez-Cosio, Rodriguez

Assistant Professors

Bezboruah, Casey, Connor, Grodach, Howard, Paulson, Welch, Whittemore

Professors Emeritus

Geisel, Taebel

Minor in Urban and Public Affairs

The minor in Urban and Public Affairs focuses on particular aspects of the urban experience and offers an opportunity for students to prepare for career opportunities in public administration, urban affairs and public policy, and urban planning and the environment. Students who choose to pursue the minor in Urban and Public Affairs complete eighteen hours of course work including two required core courses (URPA 1301 and URPA 3301) plus four additional courses (12 hours) selected from in one of the three emphasis areas. Students interested in the minor in Urban and Public Affairs should consult first with the advisor in their department or program, then with one of the Undergraduate Advisors in the School of Urban and Public Affairs. Students completing any of this minor may petition to have six hours of credit waived from an appropriate masters degree in the School of Urban and Public Affairs.

Required Core Courses

URPA 1301. INTRODUCTION TO URBAN LIFE (3-0) 3 hours credit. An examination of major urban problems, opportunities, and policy issues including crime, transportation, housing, education, welfare, and the environment with emphasis on racial, ethnic, and cultural diversity issues and alternative future possibilities; and an examination of the

major political, social, and economic challenges facing contemporary urban planners and administrators - with emphasis on the interrelations among the national, state, and local governments.

URPA 3301. THE METROPLEX (3-0) 3 hours credit. An in-depth orientation to urban dynamics, using as a case study the Dallas/Fort Worth metroplex - with its hundreds of cities, governmental units, neighborhoods, and business enterprises as well as its major concentrations of racial minorities and ethnic groups. Special attention is paid to the changing patterns of growth and demography occurring in the Dallas/Fort Worth metropolitan area and the impact of these on emerging social, political, and economic issues of this area. Emphasis also placed on career specializations and professional opportunities in the urban context.

Public Administration Emphasis Area Support Courses

ACCT 3309. ACCOUNTING FOR MANAGERS (3-0) 3 hours credit. Planning, controlling, decision making, and performance evaluation. Uses a variety of teaching techniques (e.g., problems, cases, and projects) and is open only to non-accounting majors. Credit will not be given for both this course and ACCT 4302. Prerequisite: ACCT 2302 with a grade of C or higher.

ACCT 4325. GOVERNMENTAL ACCOUNTING (3-0) 3 hours credit. Budgeting, accounting, and financial reporting for local governmental units, hospitals, voluntary health and welfare organizations, and other nonprofit entities. Prerequisite: ACCT 3312.

ANTH 4348. POLITICAL ANTHROPOLOGY (3-0) Relationships among power, identity, and culture in cross-cultural perspective. Traditional political systems, political symbols and rituals, gender and power, and the relationship between domination and resistance. How culture influences the ways in which men and women get power, use power, and resist power.

COMM 4305. COMMUNICATION AND SOCIETY (3-0) 3 hours credit. Readings and analysis of the role of communication in modern society; its impact on contemporary social, cultural, political, and intellectual trends.

COMM 4330. POLITICAL COMMUNICATION (3-0) 3 hours credit. Communication theories, principles, and strategies in modern political campaigns and events.

COMM 4335 INTERCULTURAL COMMUNICATION (3-0) Examination of verbal and nonverbal barriers to effective intercultural communication such as ethnocentrism, stereotyping, prejudice, racism, proxemics, kinesics, haptics, and chronemics. Developing effective communication in intercultural contexts. Prerequisite: COMM 2315 and 60 hours earned.

COMS 3309. ORGANIZATIONAL COMMUNICATION (3-0) 3 hours credit. Communication functions within formally structured social systems such as business, government, and education. Emphasis on conceptual schemes for conducting analysis of training programs in organizational communication. Prerequisite: six hours of speech.

COMS 3310 GROUP COMMUNICATION THEORY (3-0) Characteristics of group communication including group function and formation, norms, cohesion, problem

solving, leadership, and ethics. Prerequisite: COMS (formerly SPCH) 2304.

COMS 3316. COMMUNICATION IN HUMAN RELATIONS (3-0) 3 hours credit. The human communication process within the social, business, and family context. Theories and principles of interpersonal communication and perception of self and others. Prerequisite: six hours of speech.

CRCJ 3336. LAW ENFORCEMENT MANAGEMENT (3-0) 3 hours credit. Examines the principles of administration, management, politics and leadership with emphasis on their applicability to police planning, organization, direction, control, and personnel management.

CRCJ 4309 PRIVATE SECURITY ADMINISTRATION (3-0) The essentials of governmental and proprietary security development and program planning; including personnel recruitment and training, developing and conducting security audits, records and information protection, and general applications of modern management techniques to security organization. Prerequisite: CRCJ 3307.

ECON 3304. PUBLIC SECTOR ECONOMICS (3-0) 3 hours credit. Examines various economic reasons that may justify government involvement in the economy with particular focus on the problems inherent in government intervention. It considers topics such as the efficiency and fairness of alternative taxing systems, the growth and effects of government debt, and public choice (how spending and taxing decisions are made). It analyzes various government programs such as Social Security, health care, expenditure programs for the poor, etc. Prerequisite: ECON 2306 or consent of instructor.

ECON 3313 INDUSTRIAL ORGANIZATION AND PUBLIC POLICY (3-0) Explains market structure and its relation to strategic behavior, advertising, pricing and product differentiation decisions. Further topics include the organization of the firm, takeovers, mergers and acquisitions, research and development, and the various regulatory controls placed on firms and industries. Prerequisite: ECON 2306.

ECON 3335. ECONOMICS OF PUBLIC POLICIES (3-0) 3 hours credit. Economic analysis of issues of general interest. A non-technical application of principles of economics to current topics such as abortion, crime, deficit spending, divorce, education, health care, immigration, politics, recycling, risk and safety, Social Security, sports, and tax policy. Prerequisite: ECON 2306 or consent of instructor.

ECON 4330 LABOR ECONOMICS (3-0) Application of economic principles to labor topics such as the demand for marriage, the demand for children, the economics of beauty, the economics of highly paid sports and entertainment stars, the effects of immigration on U.S. wages and employment, workplace discrimination, the effects of affirmative action policies, and the effects of minimum wage legislation. Prerequisite: ECON 2306.

MANA 2302. COMMUNICATIONS IN ORGANIZATIONS (3-0) 3 hours credit. Examines contributions of the social and behavioral sciences to understand communications processes in organizations. Adopting both an interpersonal and organizational perspective, course topics include: verbal and nonverbal communications, dyadic and organizational communications, communication of roles and relationships, small-group communication, communication networks, and the diagnosis and improvement of organizational communications. MANA 2302 will satisfy the cultural and social studies

requirement in the College of Business Administration.

MANA 3318. MANAGING ORGANIZATIONAL BEHAVIOR (3-0) 3 hours credit. This course is an introduction to the factors that influence individual and group behavior in organizations. Emphasizing findings from the field of organizational behavior, topics covered include: individual differences and diversity, social information processing, work attitudes, stress, work motivation, power and influence, negotiation, teams, leadership, and organizational research.

MANA 3319 MANAGEMENT PROCESS THEORY (3-0) Fundamentals of the management process; principles and techniques for all organizations. The basic functions of management: planning, organizing, directing, and controlling. Social responsibilities, political influences, and ethical considerations as they affect the management of organizations. Coverage of international business, production, communications, and decision-making in terms of management activities.

MANA 3320. HUMAN RESOURCE MANAGEMENT (3-0) 3 hours credit. Process of effective management of human resources and those elements essential to such a process. The objectives of an adequate personnel program. Effective planning, recruitment, selection, training. Employee compensation and the nature of pay and its relative importance. The nature of union-management relationships. The impact of organized labor upon personnel management.

MANA 4325. LEADERSHIP IN ORGANIZATIONS (3-0) 3 hours credit. This is an upper-level, seminar-based course examining leadership theory and research, and emphasizing the development of leadership and interpersonal skills through self-assessment case analysis, and experiential exercises.

MANA 4326. DIVERSITY IN ORGANIZATIONS (3-0) 3 hours credit. Examines the implications of employee diversity in organizations, an issue of increasing importance. Includes study of the changing demographics of workers, effects of diversity on performance, teamwork, and cohesion, and ways of effectively managing in a diverse workplace. Legislation related to diversity is also reviewed.

MANA 4328. HUMAN RESOURCE STAFFING AND PERFORMANCE MANAGEMENT (3-0) 3 hours credit. Covers the areas of employee selection and performance management systems. Topics include: recruitment strategies, methods of selection, development and validation of selection and employee appraisal instruments, and implementation of performance management processes.

MANA 4330 TEAM MANAGEMENT (3-0) This course examines the critical input, process and outcomes variables in the design of and maintenance of highly effective work teams. Topics include: team composition, team norms, team decision-making strategies, intra-team and inter-team conflict, team building, management of effective work teams, and team-based organizational structures. Prerequisite: MANA 3318.

MANA 4340. BUSINESS AND SOCIETY (3-0) 3 hours credit. Explores the roles of business organizations and their relationships with individuals, governments, and other businesses from the perspectives of ethics, ideology, and corporate responsibility.

MANA 4341. NEGOTIATIONS AND CONFLICT RESOLUTION (3-0) 3 hours credit. This course is designed to better

understand the nature of conflict and its resolution through persuasion, collaboration, and negotiation. Students will learn theories of interpersonal and organizational conflict and its resolution as applied to personal, corporate, historical, and political contexts. Students will assess their own styles, skills, and values, and develop techniques to better resolve disputes, achieve objectives, and exert influence. Prerequisite: MANA 3318.

PHIL 2312 ETHICS (3-0) An inquiry into the basic principles of the moral life through a critical examination of traditional and current theories of value, right and wrong, good and evil, happiness, duty, and freedom.

POLS 2312. STATE AND LOCAL GOVERNMENT (3-0) 3 hours credit. The principles and organization of American state, county, and municipal government, together with current problems and the constitution and government of Texas.

POLS 3303. INTRODUCTION TO PUBLIC ADMINISTRATION (3-0) 3 hours credit. The scope and development of public administrative organizations; both the traditional and behavioral approaches to the treatment of administrative principles, decision making, and organizational environment.

POLS 3305. GOVERNMENT IN URBAN AMERICA (3-0) 3 hours credit. Governmental problems associated with the growth of urban areas and proposed solutions for Texas and elsewhere.

POLS 3307. STATE AND LOCAL POLITICS (3-0) 3 hours credit. Comparison of state and local political systems. State and local political components, philosophies, leaders, and issues. Prerequisites: POLS 2311 and 2312.

POLS 3308 POLITICS OF A TEXAS CITY: ARLINGTON CITY POLITICS (3-0) Describes the political processes over a period of fifty years from the immediate post-World War II years to the present. The outlines of Arlington city government, its structure, the changes, and personalities that have shaped it and held power. This course does not satisfy area distribution requirements.

POLS 4303. PUBLIC ADMINISTRATION AND THE POLITICAL PROCESS (3-0) 3 hours credit. The relationships of public administration at all levels with democratic institutions, including its interactions in the formulation and execution of public policies with the chief executive, the legislative and judicial branches, political parties, clientele groups, and the public at large.

POLS 4331 U.S. CONSTITUTIONAL LAW: GOVERNMENT POWER (3-0) U.S. Supreme Court decisions regarding the structure of government in the United States. Focus on Congress, the President, Federalism, and the relation of the judicial process to these topics. Recommended for pre-law majors.

POLS 4353. PUBLIC BUDGETING AND TAXATION (3-0) 3 hours credit. The concepts, processes, and policy impacts of taxation and public budgeting. Individual, group, and institutional roles in taxes and budgeting are emphasized. Introduction to current research techniques in political economy.

PSYC 3301 PSYCHOLOGY OF HUMAN RELATIONS (3-0) Workplace applications of topics including person perception, social influence, group processes and dynamics, interpersonal relations, teamwork, leadership, workplace discrimination, diversity, stress, and burnout.

PSYC 3302 BUSINESS PSYCHOLOGY (3-0) A survey of the fields of industrial and organizational psychology, focusing on the

application of psychological theory to understanding and solving problems in the workplace. Topics include recruitment, employee selection and training, the effects of attitudes, motivation, group dynamics and leadership, job satisfaction, productivity and morale.

URPA 4391. CONFERENCE COURSE (3-0) 3 hours credit. Designed for undergraduate students pursuing a minor in urban affairs and public policy, or public administration or urban planning and the environment. Permission of the director of undergraduate studies is required.

Urban Planning and the Environment Emphasis Area Support Courses

ARCH 3331 ARCHITECTURE AND ENVIRONMENT (3-0) An overview of sustainable design integrated with natural resource conservation. Prerequisite: ARCH 2552. Junior standing in program. Restricted to Architecture majors.

ARCH 4305 THE CITY OF ROME (3-0) History, topography, and monuments of the city of Rome and its environs from its legendary founding in 753 B.C. until the 20th Century. Urban form and architecture will be inspected in context of contemporaneous culture, with special emphasis on imperial and papal Rome. Prerequisite: Department consent. Restricted to Architecture and Interior Design Majors.

ARCH 4306. URBAN DESIGN THEORY (3-0) 3 hours credit. Design theory and its application to the urban scale, as applied to historical and contemporary examples. Prerequisite: junior standing.

ARCH 4308. HISTORY OF URBAN FORM (3-0) 3 hours credit. The history of cities as physical form, influenced by political, economic, and social forces.

ARCH 4309 THE CITY OF LONDON (3-0) History, topography, and monuments of Greater London from before the Roman colonization in the First Century until the 20th Century. Emphasis will be placed upon London's growth into a world capital since the Great Fire of 1666, stressing problems of transportation in 19th and 20th Centuries. Prerequisite: Department consent. Restricted to Architecture and Interior Design majors.

ARCH 4314 HISTORIC PRESERVATION AND RESTORATION (3-0) 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. Prerequisite: ARCH 2303, ARCH 2304. Junior standing in program. Restricted to Architecture and Interior Design majors.

BLAW 3314. REAL ESTATE LAW (3-0) 3 hours credit. Development of real estate law and the legal constraints within which real estate decisions are made. Prerequisite: junior standing.

CIRP 4391. STUDIES IN CITY AND REGIONAL PLANNING (3-0) 3 hours credit. Advanced studies in various subjects of city and regional planning. May be repeated for credit. Prerequisite: consent of the instructor.

CE 3302. TRANSPORTATION ENGINEERING (3-0) 3 hours credit. Planning, design, and operation of transportation facilities. Characteristics of vehicle movement; basic geometric design of highways; traffic flow relations in traffic streams and on transit

lines; highway capacity; transit operation; traffic engineering; and legal requirements and procedures for transportation planning. Prerequisite: CE 2331; 2313 or concurrent registration therein; and CE 3301 or IE 3301 or concurrent registration therein.

CE 3334. PRINCIPLES OF ENVIRONMENTAL ENGINEERING (3-0) 3 hours credit. Physical, chemical, and biological unit operations and processes in an air, water, and land environment. Prerequisite: CHEM 1442; CE 3305 or consent of instructor.

CE 4311 URBAN TRANSPORTATION INFRASTRUCTURE PLANNING (3-0) Urban transportation system design, planning, transportation modeling, economic theory, travel demand and travel estimation techniques. Prerequisite: Grade of C or better in CE 3302.

CE 4313. TRAFFIC ENGINEERING (3-0) 3 hours credit. Design and control of fixed-time, actuated, and computer-controlled traffic signals; optimization of traffic flow at intersections; capacity analysis of intersections, legal requirements and traffic studies for installation of traffic control devices; characteristics of signs, signals, and markings; traffic laws. Prerequisite: CE 3302 or concurrent registration therein.

ECON 3328 PRINCIPLES OF TRANSPORTATION (3-0) Impact of freight and passenger transport upon individual, business, and governmental decision-making in an evolving, competitive world economy. Prerequisite: ECON 2306.

ECON 4302 ENVIRONMENTAL ECONOMICS (3-0) Economic forces that influence the quality of the environment; economic theory and environmental management; regulatory requirements for economic impact analysis; international issues including trade and implications for Third World economies. Prerequisite: ECON 2306.

GEOG 3350 READING THE LANDSCAPE (3-0) How historians and geographers identify and interpret clues in the landscape (such as place names, architecture, vegetation, transportation, field and street patterns) that reflect historical change and its social, economic, environmental and geographic consequences. Offered as GEOG 3350 and HIST 3350; credit will be granted only once.

GEOG 3355 ENVIRONMENTAL HISTORY OF THE UNITED STATES (3-0) People and the natural environment from the colonial period to the present. Ecological change, conservation movements, and artistic and literary interpretations of landscape and nature. Listed as GEOG 3355 and HIST 3355; credit will be granted only once.

GEOL 1430. GLOBAL WARMING (3-1) Global environmental challenges confronting humanity such as pollution, depletion of natural resources, ecosystem deterioration, food production, and population growth

GEOL 2406 NATURAL RESOURCES & SUSTAINABILITY (3-2) Energy, construction, agricultural, and hydrological resources are evaluated in terms of their production and use, including storage and disposal of waste. Emphasis is placed on the importance of preserving clean water, air and soils. The course will concentrate on what humans take from the Earth, the impacts it has on their environment, and what it takes to make the planet sustainable for human habitation.

GEOL 4331. ANALYSIS OF SPATIAL DATA (2-1) 3 hours credit. Analyzing spatial data using ArcGIS, Spatial Analyst, and 3-D Analyst, topological surface analysis and modeling; 3-D visualization and viewscapes; spatial statistics and data quality

management. Prerequisite: GEOL 4330, junior standing, or permission of instructor.

HIST 3350. READING THE LANDSCAPE (3-0) 3 hours credit. How historians and geographers identify and interpret clues in the landscape (such as place names, architecture, vegetation, transportation, field and street patterns) that reflect historical change and its social, economic, environmental, and geographic consequences. Also listed as GEOG 3350; credit will be granted only once.

HIST 3355. ENVIRONMENTAL HISTORY OF THE UNITED STATES (3-0) 3 hours credit. People and the natural environment from the colonial period to the present. Ecological change, conservation movements, and artistic and literary interpretations of landscape and nature. Also offered as GEOG 3335; credit will be granted only once.

HIST 3362. CITIES AND SUBURBS IN UNITED STATES HISTORY (3-0) 3 hours credit. Traces urban and suburban development from the colonial era to the present with special emphasis not only on the transformation of their physical appearance over time but on their changing meaning and significance in American history. Focuses on the economic base of urban and suburban expansion, as well as the social, political, and cultural dynamics of metropolitan America.

POLS 2312. STATE AND LOCAL GOVERNMENT (3-0) 3 hours credit. The principles and organization of American state, county and municipal government, together with current problems and the constitution and government of Texas.

POLS 4351. ENERGY POLICY AND ADMINISTRATION (3-0) 3 hours credit. Basic issues underlying the politics, economics, and administration of energy policy within the United States. Emerging energy sources, such as solar and geothermal. Prerequisites: POLS 2311 and 2312.

PSYC 3316. ENVIRONMENTAL PSYCHOLOGY (3-0) 3 hours credit. The effect of the social, physical, and ecological features of the environment. Social influence processes, interpersonal attraction, group behavior, aggression, conformity, and attitude formation and change. Prerequisite: PSYC 1315.

REAE 3325. REAL ESTATE FUNDAMENTALS (3-0) 3 hours credit. A foundation for study and research in specialized areas such as real estate financing, real estate investment and counseling, real estate management, real estate development, and property appraising. Prerequisite: MATH 1316 (or permission of instructor), and junior standing.

REAE 4314. REAL ESTATE DEVELOPMENT (3-0) 3 hours credit. The land conversion process including feasibility analysis, site selection, design, construction, and financial analysis. Land use controls, planning, and environmental constraints are also examined. Prerequisite: junior standing.

SOCI 3336. SOCIAL INEQUALITY (3-0) 3 hours credit. Examines the processes, characteristics, and consequences of social inequality in society. Topics include the social class structure, status groups, and elite power structure as they influence people's life chances.

SOCI 3353. SOCIAL CLIMATE OF CITIES (2-2) 3 hours credit. A comparative study of urban communities and metropolitan areas in terms of their distinctive social life and culture. Topics touching on power and urban politics, race and ethnic relations, poverty, and leisure and lifestyles will be

examined in terms of their contribution to the unique social climate of cities.

Urban Affairs and Public Policy Emphasis Area support courses

ANTH 2322 GLOBAL CULTURES (3-0) Methods and theories of sociocultural anthropology. Examines systems of social organization and cultural meaning in contemporary human societies. Topics include fieldwork, cross-cultural analysis, applied anthropology, and global perspectives on political, economic, and social institutions. Formerly ANTH 3322; credit will not be granted for both ANTH 2322 and 3322.

ANTH 3339 URBAN ANTHROPOLOGY (3-0) Examines main issues, theoretical approaches and ethnographic methods used by anthropologists working in cities. Also discusses relevant contemporary topics such as growth of global cities, gentrification, poverty and inequality, and the economic, social and cultural integration of international immigrants in U.S. cities.

ANTH 3355 THE RISE OF CIVILIZATION (3-0) The development of complex cultures from village farming societies in various regions of the Old and New Worlds. The civilizations of Mesopotamia, Egypt, and Mesoamerica, among others, will be treated, along with general questions concerning the rise, development, and collapse of early civilizations. Formerly ANTH 2355; credit will not be granted for both ANTH 2355 and 3355.

COMM 4305. COMMUNICATION AND SOCIETY (3-0) 3 hours credit. Readings and analysis of the role of communication in modern society; its impact on contemporary social, cultural, political, and intellectual trends.

COMM 4330. POLITICAL COMMUNICATION (3-0) 3 hours credit. Communication theories, principles, and strategies in modern political campaigns and events.

COMM 4335. INTERCULTURAL COMMUNICATION (3-0) 3 hours credit. Examination of verbal and nonverbal barriers to effective intercultural communication such as ethnocentrism, stereotyping, prejudice, racism, proxemics, kinesics, haptics, and chronemics. Developing effective communication in intercultural contexts.

COMS 3310. GROUP COMMUNICATION THEORY (3-0) 3 hours credit. Characteristics of group communication including group function and formation, norms, cohesion, problem solving, leadership, and ethics. Prerequisite: COMS (formerly SPCH) 2304.

COMS 3316. COMMUNICATION IN HUMAN RELATIONS (3-0) 3 hours credit. The human communication process within the social, business, and family context. Theories and principles of interpersonal communication and perception of self and others. Prerequisite: six hours of speech.

CRCJ 3380. RACE, CRIME, AND JUSTICE (3-0) 3 hours credit. An overview of ethnic and gender issues focusing on victims, offenders, and professionals in the criminal justice system.

CRCJ 4301. THE AMERICAN JUDICIAL SYSTEM (3-0) 3 hours credit. Federal, state, and local judicial systems, with special emphasis on state trial courts having criminal jurisdiction. Court structure and function, court management, and judicial behavior.

CRCJ 4325 GANGS (3-0) An examination of historical and contemporary street and correctional institutional gangs. Addresses the nature and definition of gangs, types and diversity of membership of gangs, theoretical explanations, criminal and deviant behavior, law enforcement responses, intervention and prevention strategies, and public policy issues. Prerequisite: CRCJ 2334.

ECON 2337. ECONOMICS OF SOCIAL ISSUES (3-0) 3 hours credit. Economic consequences and solutions of current social issues. Each semester, a series of topics will be covered in line with current events and the instructor's expertise to facilitate an understanding of the economic structure.

ECON 3302. THE ECONOMICS OF CRIME (3-0) 3 hours credit. Economic analysis of criminal activity and its impact on the allocation of scarce resources; economic models of criminal behavior, optimum allocation of criminal justice resources, public and private sector approaches to deterrence, and current issues such as gun control and drug abuse prevention. Prerequisite: ECON 2306 or consent of instructor.

ECON 3335. ECONOMICS OF PUBLIC POLICIES (3-0) 3 hours credit. Economic analysis of issues of general interest. A non-technical application of principles of economics to current topics such as abortion, crime, deficit spending, divorce, education, health care, immigration, politics, recycling, risk and safety, social security, sports, and tax policy. Prerequisite: ECON 2306 or consent of instructor.

ECON 4330. LABOR ECONOMICS (3-0) 3 hours credit. Application of economic principles to labor topics such as the demand for marriage, the demand for children, the economics of beauty, the economics of highly paid sports and entertainment stars, the effects of immigration on U.S. wages and employment, workplace discrimination, the effects of affirmative action policies, and the effects of minimum wage legislation. Prerequisite: ECON 2306.

GEOG 3350 READING THE LANDSCAPE (3-0) How historians and geographers identify and interpret clues in the landscape (such as place names, architecture, vegetation, transportation, field and street patterns) that reflect historical change and its social, economic, environmental and geographic consequences. Offered as GEOG 3350 and HIST 3350; credit will be granted only once.

HIST 2301. HISTORY OF CIVILIZATION (3-0) 3 hours credit. Significant developments from prehistoric times through the 16th century. Achievements and experiences of great civilizations, emphasizing major historical figures and epochs, important ideas and religions, and factors of continuity and change. Provides a foundation for understanding our heritage and shared values, and introduces students to the historical forces that have shaped today's world.

HIST 2302 HISTORY OF CIVILIZATION (3-0) (HIST 2312). Major modern trends such as industrialism, nationalism, imperialism, socialism, and the more complex problems and conflicts of the present century. Particular attention to the emergence of a global civilization. Provides a foundation for understanding our heritage and shared values, and introduces students to the historical forces that have shaped today's world.

HIST 3350 READING THE LANDSCAPE (3-0) How historians and geographers identify and interpret clues in the landscape (such as place names, architecture, vegetation,

transportation, field and street patterns) that reflect historical change and its social, economic, environmental and geographic consequences. Offered as GEOG 3350 and HIST 3350; credit will be granted only once.

HIST 3351. HISTORY OF THE DALLAS-FORT WORTH METROPLEX (3-0) 3 hours credit. The growth and development of Dallas and Fort Worth from competitive 19th-century trade centers in a rural setting to cooperative high-tech cities in a rapidly urbanizing metroplex. Political, economic, cultural, and spatial changes of this area are explored within a national urban context.

HIST 3362. CITIES AND SUBURBS IN UNITED STATES HISTORY (3-0) 3 hours credit. Traces urban and suburban development from the colonial era to the present with special emphasis not only on the transformation of their physical appearance over time but on their changing meaning and significance in American history. Focuses on the economic base of urban and suburban expansion, as well as the social, political, and cultural dynamics of metropolitan America.

HIST 3366. AFRICAN-AMERICAN HISTORY, 1865-PRESENT (3-0) 3 hours credit. Emphasis on the transition from slavery to freedom, the political, social, and economic status of blacks in the late 19th century, 20th century black institutions and culture, and the evolution of the civil rights movement.

HIST 3368. THE HISTORY OF THE MEXICAN AMERICAN (3-0) 3 hours credit. The role of the Mexican American in the cultural and historical development of the United States with special emphasis on the Southwest.

HIST 3373 U.S. ECONOMIC HISTORY, 1860-PRESENT (3-0) Rise of manufacturing, marketing, and electrification. Organized labor and rebellions against the corporate world. Government regulation of business and labor. Corporations and unions during depressions and wars. Auto, high tech, and other industries. The military-industrial complex. Franchising and other trends.

HUMA 4302. SOCIAL AND POLITICAL THEORY (3-0) 3 hours credit. Examination of the major social and political theories that have shaped Western thought. Topics may include the concept of the social, the role of the individual, the public/private distinction, and gender relations. Focus on particular theorists as well as issues.

INTS 4388. SPECIAL TOPICS IN INTERDISCIPLINARY STUDIES (3-0) Justice, Democracy, and Metropolitan Environments. This course considers the relationship of justice, equity, and environmental protection in American metropolitan areas. Students will use interdisciplinary approaches to frame questions about how environmental issues could prompt the modification of social, economic, and political practices to promote better relations between human beings and their whole environment. Prerequisite INTS 2301 and INTS 4301 with a grade of C or better, or ESST 2300. [INTS 4388 WILL BE APPROVED ONLY WHEN THE TOPIC IS ENVIRONMENTAL RELATED.]

MANA 4326. DIVERSITY IN ORGANIZATIONS (3-0) 3 hours credit. Examines the implications of employee diversity in organizations, an issue of increasing importance. Includes study of the changing demographics of workers, effects of diversity on performance, teamwork, and cohesion, and ways of effectively managing in a diverse workplace. Legislation related to diversity is also reviewed.

MANA 4340 BUSINESS AND SOCIETY (3-0) Explores the roles of business organizations and their relationships with individuals, governments, and other businesses from the

perspectives of ethics, ideology, and corporate responsibility.

MANA 4341. NEGOTIATIONS AND CONFLICT RESOLUTION. (3-0) 3 hours credit. This course is designed to better understand the nature of conflict and its resolution through persuasion, collaboration, and negotiation. Students will learn theories of interpersonal and organizational conflict and its resolution as applied to personal, corporate, historical, and political contexts. Students will assess their own styles, skills, and values, and develop techniques to better resolve disputes, achieve objectives, and exert influence. Prerequisite: MANA 3318.

POLS 2312. STATE AND LOCAL GOVERNMENT (3-0) 3 hours credit. The principles and organization of American state, county, and municipal government, together with current problems and the constitution and government of Texas.

POLS 3305. GOVERNMENT IN URBAN AMERICA (3-0) 3 hours credit. Governmental problems associated with the growth of urban areas and proposed solutions for Texas and elsewhere.

POLS 3308 POLITICS OF A TEXAS CITY: ARLINGTON CITY POLITICS (3-0) Describes the political processes over a period of fifty years from the immediate post-World War II years to the present. The outlines of Arlington city government, its structure, the changes, and personalities that have shaped it and held power. This course does not satisfy area distribution requirements.

POLS 3312. INTRODUCTION TO PUBLIC POLICY ANALYSIS (3-0) 3 hours credit. The American policymaking process from issue creation to program administration and evaluation. Policy models and methods of policy analysis. Oriented toward providing students with skills as a professional policy analyst.

POLS 3313 MODERN CRITICS OF SOCIETY AND POLITICS (3-0) Designed for both political science and other majors. Focus on writers like Banfield, Galbraith, Marcuse, Reich, Revel, Skinner, and Toffler.

POLS 4317. ETHNIC GROUP POLITICS IN THE UNITED STATES (3-0) 3 hours credit. The influence of selected major ethnic groups with special attention given to organizational development, participation in political parties, leadership, ideology, immigration policy, current issues, and relations with the dominant culture and other ethnic groups.

POLS 4318. POLITICS OF AFRICAN AMERICANS (3-0) 3 hours credit. The influence of African American politics on United States government and policies with special attention given to organizational development, participation in political parties, leadership, ideology, the Civil Rights movement, current issues, and relations with other ethnic groups.

POLS 4319. POLITICS OF MEXICAN AMERICANS (3-0) 3 hours credit. The influence of Mexican American politics on United States government and policies with special attention given to organizational development, participation in political parties, leadership, ideology, the Chicano movement, current issues, and relationships with other ethnic groups.

POLS 4352. U.S. IMMIGRATION POLICY AND THE AMERICAN DREAM (3-0) 3 hours credit. Focus on American identity through the examination of immigration to the United States, past and present, and the evolution of U.S. immigration policy. Topics include U.S. attitudes and policy responses to European, Asian, and Latin American immigration and to the incorporation of the

descendants of African slaves and Native Americans.

PSYC 3315 SOCIAL PSYCHOLOGY (3-0) The theories and research dealing with individual behavior in the social environment. Social influence processes, interpersonal attraction, group behavior, aggression, conformity, and attitude formation and change. PSYC 3144 is an optional laboratory which, when added to PSYC 3315, satisfies a portion of the laboratory requirement.

SOCW 3301 HUMAN BEHAVIOR AND THE SOCIAL ENVIRONMENT I (3-0) The first of two required human behavior courses that explore, within the context of a strengths and empowerment perspective, knowledge of the bio-psycho-social development of persons from birth through young adulthood.

SOCW 3303. SOCIAL WELFARE POLICY AND SERVICES (3-0) 3 hours credit. 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 is also examined in the context of the evolution and function of the contemporary American social welfare system. Prerequisite: SOCW 2311.

SOCW 3317. HUMAN BEHAVIOR AND DIVERSE POPULATIONS (3-0) 3 hours credit. Introduction to theoretical, practical, and policy issues related to diverse populations. Historical, political, and socioeconomic forces are examined that maintain discriminatory and oppressive values, attitudes, and behaviors in society and in all levels of organizational behavior. Prerequisite: SOCW 2311, 2313.

SOCI 3317 INDIVIDUAL AND SOCIETY (3-0) How society influences individual thought, feeling, and behavior. Includes interpersonal perception, attitudes, norms, roles, conformity, and such social issues as aggression, helping behavior, prejudice, and interpersonal attraction.

SOCI 3324 SOCIAL MOVEMENTS (3-0) Focuses on twentieth and twenty-first century social movements, including the U.S. civil rights movement, the student and anti-war movements of the 1960s, the women's movement, the environmental movement, and anti-globalization movements. Status politics movements, such as pro-choice/pro-life and gay rights movements, are also explored. Compares these movements with their counterparts in other countries and identifies the reasons for their successes and failures. Prerequisite: SOCI 1311.

SOCI 3327 INTERCULTURAL INTERACTION (3-0) Patterns and variations in interactions involving people from different cultures and subcultures. Intercultural interaction, both within multicultural societies and between persons from different societies.

SOCI 3336. SOCIAL INEQUALITY (3-0) 3 hours credit. Examines the processes, characteristics, and consequences of social inequality in society. Topics include the social class structure, status groups, and elite power structure as they influence people's life chances.

SOCI 3353. SOCIAL CLIMATE OF CITIES (2-2) 3 hours credit. A comparative study of urban communities and metropolitan areas in terms of their distinctive social life and culture. Topics touching on power and urban politics, race and ethnic relations, poverty, and leisure and lifestyles will be examined in terms of their contribution to the unique social climate of cities.

SOCI 3357 LAW AND SOCIETY (3-0) Law as a social institution. The processes of defining

criminal conduct and the social functions of law and of legal processes and systems. Prerequisite: sophomore standing or permission of the instructor.

SOCI 4315 VIOLENCE IN SOCIETY (3-0) Violence as a group process directed toward social change. Historical perspectives, current events, preventive and control techniques, public reaction, and individual behavior. Prerequisite: sophomore standing or permission of the instructor.

URPA 4391. CONFERENCE COURSE (3-0) 3 hours credit. Designed for undergraduate students pursuing a minor in urban affairs and public policy, or public administration or urban planning and the environment. Permission of the director of undergraduate studies is required.

Aerospace Studies (Air Force ROTC)

2800 W. Lowden St., Fort Worth, Texas 76109 • 817-257-7461
www.afrotc.tcu.edu

Overview

The United States Air Force Reserve Officer Training Corps (AFROTC) provides women and men at Texas Christian University, Texas Wesleyan University, Dallas Baptist University, The University of Texas at Arlington, Weatherford College, and Tarrant County College the education and training necessary to develop the management and leadership skills vital to professional Air Force officers.

Enrollment in the General Military Course (first two years) is voluntary for eligible students and does not obligate non-scholarship students for further military service. The Professional Officer Course (last two years) is also voluntary but competitive. Because the POC leads to a commission in the United States Air Force, those selected to continue training incur military obligation.

Aerospace studies courses are taken concurrently with other degree programs. No degree is offered in aerospace studies, but up to 24 semester hours may be earned in aerospace studies over the four-year period. Some of the classes may be used to meet major elective requirements. See your academic advisor for confirmation. Students who enroll in aerospace studies classes must attend both classroom and leadership laboratory classes at Texas Christian University, 2800 W. Lowden St., Fort Worth, Texas 76109. The laboratory classes give students first hand experience in leadership and organizational skill while preparing them for enrollment in the Professional Officer Course.

Programs Available

Four-Year Program

This program enables students to take advantage of four years of aerospace studies courses. Each semester, for the first two years, cadets take a one-credit hour academic class and a one-credit hour Leadership Laboratory (LLAB). The first two years collectively are referred to as the General Military Course (GMC). Upon successful completion of the GMC and an ensuing four-week Air Force paid field-training course, qualified and selected students may elect to enroll in the final two years referred to as the Professional Officer Course (POC). Each semester in the POC,

students will take a three-credit hour academic class and a one-credit hour LLAB. The unit issues AFROTC uniforms and textbooks.

Two-Year Program

This program is commonly known as the Professional Officer Course (POC) and enables eligible graduate and undergraduate students to obtain a commission in the United States Air Force. Formal selection for entering the POC requires completion of a summer field-training course. Students electing this option must apply to the Professor of Aerospace Studies early in their sophomore year or before entering a graduate degree program, pass the Air Force Officer Qualifying Test, and pass a physical examination prior to attending the six-week field training course. Two-year students enrolled in the POC receive similar benefits and advantages to those enrolled in the four-year program, including the opportunity to apply for various Air Force ROTC college scholarships. All students selected for the POC (two- or four-year program) receive a monthly, non-taxable subsistence allowance.

General Qualifications

A student enrolling in AFROTC must:

- Be a full-time student (12 semester hours or more; 9 hours for postgraduate students)
- Be a United States citizen
- Be in good physical condition/health
- Have good moral character
- Be no older than 29 years old (up to 34 years old with waivers) upon commissioning

Scholarships

Air Force ROTC offers 4, 3.5, 3, 2, and 1 year (in some situations) scholarships. Most scholarships pay for tuition, textbooks, and fees plus a monthly, nontaxable stipend during the school year. Scholarships are offered in various majors. In addition to meeting the general qualifications mentioned above, scholarship applicants must be at least 17 years of age when the scholarship is activated and must be under 31 years of age as of December 31 of the calendar year during which commissioning is scheduled. Individuals with previous military experience may obtain a year extension of the maximum age restriction for up to 3 years of prior service. Requirements for each scholarship category may vary; therefore, applicants should contact the Department of Aerospace Studies at (817) 257-7461 for specific details.

High School students may apply for a four-year scholarship no later than Dec. 1 of their high school senior year. Scholarship applications for college students are made through the Aerospace Studies Department in the spring semester. Scholarship applicants are selected using the whole person concept, which includes objective factors (i.e. grade point average and physical fitness test) and subjective factors (i.e. personal evaluations). Students who are enrolled in Air Force ROTC generally improve their scholarship selection opportunity.

Program Benefits

As Air Force ROTC cadets, students are entitled to selective benefits. Social and co-curricular activities, together with leadership and academic training, are all part of Air Force ROTC. Students receive a nontaxable subsistence allowance each month during the school year if they are in the Professional Officer Course or are an AFROTC scholarship recipient. The

detachment sponsors a Civil Air Patrol program where cadets can obtain front-seat and back-seat flying time in Cessna aircraft at no charge. Drill team, honor guard, Arnold Air Honor Society, are just a few social outlets for the cadets. Summer opportunities for cadets can include a paid visit to a military installation, Freefall Parachuting and Soaring at the United States Air Force Academy, Combat Survival Training, Flight Nurse shadowing, and cadet training assistant duty at field training.

Receiving Commission

Upon successful completion of the AFROTC program and baccalaureate or graduate degree, a student will be commissioned a second lieutenant in the U.S. Air Force. Newly commissioned officers can normally expect to be called into active service within 180 days from the date of their commissioning. In certain instances, students continuing in post-baccalaureate degree programs can delay active service.

Course Substitution

Aerospace Studies (AFROTC) courses may be taken for credit toward completion of a college degree. Upper level courses (AS 3000/4000 level) may be applied toward elective requirements. Credit will vary depending upon major.

Additional Information

More detailed information about the Air Force ROTC program is available through the Department of Aerospace Studies. The department is located at 2800 W. Lowden Street on the Texas Christian University campus. Call 817-257-7461 or 1-800-TCU-FROG and ask for Air Force ROTC.

Aerospace Studies Faculty

Chair

Lieutenant Colonel Eldridge

Assistant Professors

Cook, Wilson

Humanities Program

305 Carlisle Hall · Box 19527 · 817-272-2764
www.uta.edu/philosophy/huma

Overview

The humanities disciplines are broadly concerned with human thought and culture, and include anthropology, art and art history, classical studies, English, modern and ancient languages, history, linguistics, music, philosophy, social and political theory, theatre arts, and women's studies. The minor in Humanities includes courses taught by members of these various departments in the College of Liberal Arts.

Students seeking the minor in Humanities should first consult with advisors in their departments or programs for approval of the minor, then with the undergraduate humanities advisor in the Department of Philosophy and Humanities. A minor in Humanities consists of 18 hours of courses in at least three of the humanities disciplines listed in the previous paragraph. In addition, six of the 18 hours must be at the 3000/4000 level, and six must consist of courses selected from the following list of foundational, integrative, or

methodological courses in the humanities or from other approved humanities courses: ART 2300, 3300, 4301 (WOMS 4301), ANTH 3331, 3336, CLAS 2307 (WOMS 2307), 3310, 3320, ENGL 3361, 4301, HIST 3300, HUMA 2301, 3301, 4301, 4302, LING 2301, 3311, 4317, 4330, MUSI 2300, 3300* (*presupposes the student can read music), PHIL 2300, 3307, POLS 3310, 4322, 4323 (WOMS 4323), SOCI 3353, 4311, WOMS 2310. (Please note that the six advanced hours and the six hours from specified courses may overlap.)

Mexican American Studies Program

2nd Floor, University Center · Box 19444 · 817-272-2933
www.uta.edu/cmas

Overview

The Center for Mexican American Studies in the College of Liberal Arts offers a minor that is available to all students. A Mexican American Studies (MAS) minor consists of 18 total credit hours: one required introductory course, one required course taught by Mexican American Studies faculty, and four electives selected from the lists below. Electives are grouped into two suggested "streams" from which students may choose depending upon their interests and future educational and professional plans. The Cultural Studies Stream focuses on Mexican American culture and history, and is most appropriate for students planning on further graduate study related to these themes, particularly in the arts and humanities. The Applied Studies Stream emphasizes contemporary experiences of the Mexican American population through the lens of the social and behavioral sciences, and is most suited for students preparing for graduate study in these areas or for direct professional work after graduation that will involve close contact with the Mexican American community. After consulting with their major departments or programs, students will file a degree plan for the MAS minor at the Center for Mexican American Studies. Courses not listed below may qualify as electives with the approval of the director of the Center for Mexican American Studies.

Required Introductory Course

MAS 2300 Introduction to Mexican American Studies

Required Course (choose one)

MAS 3310 Latinos in the United States
MAS 3314/SOCI 3314/WOMS 4392 The Latina Experience
MAS 3346/ENGL 3346 Mexican-American Literature

Electives-Cultural Studies Stream

MAS 3310 Latinos in the United States
MAS 3312/SPAN 3312 Spanish American Culture and Civilization
MAS 3314/SOCI 3314 The Latina Experience
SOCI 4365/WOMS 4392 when the topic is The Latina Experience
MAS 3330/ANTH 3330 Cultural Diversity and Identity
ENGL 3346 Mexican-American Literature
MAS 3352/HIST 3352 The Southwest
MAS 3363/HIST 3363 Texas to 1850
MAS 3368/HIST 3368 Mexican American History
MAS 3369/HIST 3369 History of Latino

Religions
MAS 4313/SPAN 4313 Topics in Hispanic Culture
MAS 4315/SPAN 4315 Topics in Contemporary Latin-American Literature and Culture, Modernism to the Present
MAS 4317/SPAN 4317 Chicano Literature
MAS 4318/SPAN 4318 Mexican Literature
MAS 4327/SPAN 4327/WOMS 4327 Women in Hispanic Literature
MAS 4350 Topics in Mexican American Studies
MAS 4368/HIST 4368 History of Mexico
MAS 4391 Conference Course

Electives-Applied Studies Stream

MAS 3310 Latinos in the United States
MAS 3314/SOCI 3314 The Latina Experience
SOCI 4365/WOMS 4392 when the topic is The Latina Experience
MAS 3317/POLS 3317 Mexican Politics and U.S.-Mexico Relations
MAS 3319/SOCW 3317 Human Behavior and Diverse Populations
SOCI 3337 Racial and Ethnic Groups in the United States
ENGL 3346 Mexican-American Literature
MAS 3348/ANTH 3348 Latino Immigration to the United States
MAS 3368/HIST 3368 Mexican American History
CRCJ 3380 Race, Crime, and Justice
MAS 4319/POLS 4319 Politics of Mexican Americans
MAS 4350 Topics in Mexican American Studies
MAS 4370 Capstone Mexican American Studies
MAS 4391 Conference Course

Southwestern Studies Program

6th Floor, Central Library • Box 19497 · 817-272-3997
www.uta.edu/southwesternstudies

Overview

The Southwestern Studies minor fosters an interdisciplinary examination of an historically and culturally significant region-the southwestern United States and northern Mexico. The program offers opportunities for students to explore important topics in a regional context, including multicultural diversity, economic development, political and social change, art and literature, environment, cultural and historical geography, historical cartography, and architectural and urban history. The minor is supported by faculty from seven departments and is sponsored by the University's Center for Greater Southwestern Studies and the History of Cartography, which promotes the use of the UT Arlington Special Collections and the Minority Cultures Collection in the Central Library.

With the permission of their departmental advisor, students enroll in 18 hours selected primarily from the courses listed below. These hours must be distributed among at least three different departments.

Some of the following courses change content from offering to offering and might not be relevant to the minor during a particular year. In addition, special topics courses and/or courses taught outside the College of Liberal Arts may also be used to fulfill the Southwestern Studies minor with the permission of the Director of Southwestern Studies. For these reasons it is important that students consult with the Southwestern Studies faculty advisor before registering each semester.

Southwestern Studies Faculty

Director

Professor Francaviglia

Course Descriptions

ACCT 2301 PRINCIPLES OF ACCOUNTING I (3-0) (ACCT 2301). The accounting process and its informational output. Financial accounting concepts, basic procedures, and the resulting reports. Recognition and creation of accounting information as bases for decisions.

ACCT 2302 PRINCIPLES OF ACCOUNTING II (3-0) A study of managerial accounting concepts and techniques. Topics include cost behavior, budgeting, responsibility accounting, and product costing. Prerequisite: ACCT 2301 with a grade of C or higher.

ACCT 3303 INTRODUCTION TO ACCOUNTING INFORMATION SYSTEMS (3-0) The structure of contemporary accounting systems with emphasis on controls, auditing, reporting, and efficient operation. Prerequisite: ACCT 2302 and INSY 2303 with grades of C or higher.

ACCT 3304 SOFTWARE TOOLS (3-0) A study of different types of software that would likely be used by accountants and other business people. May include word processing, spreadsheet, database, and presentation software, accounting software, tax software, and other types of tools that might be relevant. Accounting majors may take this course as an advanced business elective, but may not count this course as an accounting elective nor include it in the calculation of their accounting GPA. Prerequisite: ACCT 2302.

ACCT 3309 ACCOUNTING FOR MANAGERS (3-0) Planning, controlling, decision making, and performance evaluation. Uses a variety of teaching techniques (e.g., problems, cases, and projects) and is open only to non-accounting majors. Credit will not be given for both this course and ACCT 4302. Prerequisite: ACCT 2302 with a grade of C or higher.

ACCT 3311 FINANCIAL ACCOUNTING I (3-0) The environment of accounting, development of standards, basic theory, financial statements, worksheets, annuities and present value, receivables, inventories, liabilities, plant assets, depreciation and depletion, and intangible assets. Prerequisite: ACCT 2302 with a grade of C or higher and successful completion of basic accounting skills exam. (See the departmental website for details about the exam.)

ACCT 3312 FINANCIAL ACCOUNTING II (3-0) Stockholders' equity, earnings per share, investments in bonds and stocks, equity method, revenue recognition, accounting changes, error analysis, income taxes, leases, and cash flows. Prerequisite: ACCT 3311 with a grade of C or higher.

ACCT 3315 PRINCIPLES OF FEDERAL INCOME TAX (3-0) 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: Accounting major with junior standing and ACCT 3311 with a grade of C or higher.

ACCT 4191 STUDIES IN ACCOUNTING (1-0) Advanced studies, on an individual basis, in the various fields of accounting. Prerequisite: Senior standing and permission of instructor. May be repeated for credit with consent of department chair.

ACCT 4291 STUDIES IN ACCOUNTING (2-0) Advanced studies, on an individual basis, in the various fields of accounting. Prerequisite: Senior standing and permission of instructor. May be repeated for credit with consent of department chair.

ACCT 4301 STUDY OF INCOME TAX FOR ENTITIES OTHER THAN INDIVIDUALS (3-0) Comprehensive analysis of the federal income tax consequences applicable to entities other than individuals. The relevant tax principles of corporations, partnerships, trusts, and estates will be undertaken. Prerequisite: Accounting major with junior standing and ACCT 3315 with a grade of C or higher.

ACCT 4302 ACCOUNTING IN MANAGERIAL PLANNING AND CONTROL (3-0) The role and development of accounting and other information for use in planning, control, decision making, and performance evaluation. Application of appropriate quantitative and statistical methods. Prerequisite: Accounting major with junior standing and ACCT 3311 with grade of C or higher, and INSY 2303 and BSTAT 3321.

ACCT 4304 COST ACCOUNTING (3-0) Concepts and purposes underlying the development and reporting of cost accounting information. Job order costing, process costing, standard costs, and variance analysis. Prerequisite: Accounting major with junior standing and ACCT 4302 with a grade of C or higher.

ACCT 4311 ADVANCED FINANCIAL TOPICS (3-0) Consolidated statements, partnerships, and other topics which may include price-level adjusted statements, current value statements, ratio analysis, full disclosure, multinational companies, segment reporting, interim statements, branches, estates and trusts, SEC reporting, regulated industries. Prerequisite: Accounting major with junior standing and ACCT 3312 with grade of C or higher.

ACCT 4318 AUDITING (3-0) Principles, concepts, and techniques which are appropriate to the acquisition, evaluation, and documentation of audit evidence. Internal control concepts, financial compliance, and operational auditing. Prerequisite: Accounting major with junior standing and ACCT 3303 and 3312 with grades of C or higher.

ACCT 4321 RESEARCH IN ACCOUNTING ISSUES (3-0) 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. This course should be completed in a student's last semester. Prerequisite: Accounting major with senior standing in last semester and completion of 21 hours of accounting with grades of C or higher.

ACCT 4325 GOVERNMENTAL ACCOUNTING (3-0) Budgeting, accounting, and financial reporting for local governmental units, hospitals, voluntary health and welfare organizations, and other nonprofit entities. Prerequisite: Accounting major with junior standing and ACCT 3312 with a grade of C or higher.

ACCT 4331 SEMINAR IN ACCOUNTING (3-0) Readings and discussions of special topics in accounting. Prerequisite: Junior or senior standing and consent of instructor. May be repeated for credit with consent of department chair.

ACCT 4332 INTERNAL AUDITING I (3-0) A comprehensive study of internal auditing standards, ethics, concepts, audit techniques, and reporting practices. Prerequisite: Accounting major with junior standing and ACCT 3303 with a grade of C or higher or consent of the instructor.

ACCT 4333 INTERNAL AUDITING II (3-0) An advance study of operational, organizational, and quality control audits. Topics will include operational audit methodology, audits of administrative and support services, audits of line functions, and audits of special areas. Prerequisite: Accounting major with junior standing and ACCT 4332 with a grade of C or higher and a 3.0 GPA.

ACCT 4380 ETHICAL BEHAVIOR IN ACCOUNTING (3-0) 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. Accounting majors may take this course as an advanced business elective, but may not count this course as an accounting elective nor include it in the calculation of their accounting GPA. Junior standing or higher is recommended.

ACCT 4391 STUDIES IN ACCOUNTING (3-0) Advanced studies, on an individual basis, in the various fields of accounting. Prerequisite: Senior standing and permission of instructor. May be repeated for credit with consent of department chair.

ACCT 4393 ACCOUNTING INTERNSHIP (3-0) Practical training in accounting. Analysis of theory applied to real life situations. May be used as an advanced business elective only; graded on a pass/fail basis. No credit will be given for previous experience or activities. Prerequisite: Accounting major with junior standing and consent of department internship advisor.

ADVT 2337 INTRODUCTION TO ADVERTISING (3-0) The role of advertising in society. Basic concepts include marketing message creation, budget determination, agency-client relationships, and social responsibility of advertisers.

ADVT 3304 STRATEGIC COMMUNICATION I (3-0) Introductory strategy course focusing on creative communication in advertising and marketing communication planning.

The evolution and development of the strategic creative process is evaluated relative to campaign objectives and research, especially as it impacts Integrated Marketing Communication and branding programs. Students successfully completing Strategic Communication I advance to Strategic Communication II. Prerequisite: a minimum grade of C (2.0/4.0 scale) or higher in JOUR 1345, ADVT 2337 and ADVT math requirement (six hours to include MATH 1308, Elementary Statistical Analysis, with a course grade of C (2.0/4.0) or above, and three hours of college algebra or higher).

ADVT 3305 ADVERTISING MEDIA (3-0) Decision-making in selection and use of advertising media. Evaluation of media alternatives in terms of marketing communication objectives and strategy, audience analysis, media-market research, cost, and editorial/program content. Media plans are developed consistent with Integrated Marketing Communication and branding programs. Prerequisite: JOUR 1345, ADVT 2337, and ADVT math requirement (six hours to include MATH 1308 with a grade of C or better, and three hours of College Algebra or higher).

ADVT 3306 STRATEGIC COMMUNICATION II (3-0) Advanced strategy course building on the foundation from Strategic Communication I; assumes a basic understanding of strategy and research. Advanced critiques of existing campaigns coupled with the development of strategic communication for various media, including print, broadcast, direct mail, and Internet. Persuasive presentation of strategies and executions to others as in an agency setting; includes copywriting, basic art direction, and multimedia usage. Prerequisite: ADVT 3304.

ADVT 4300 INTEGRATED MARKETING COMMUNICATION (IMC) CASE STUDIES (3-0) Theory and management of such functional integrated marketing communication areas as advertising, public relations, sales promotion, and direct response are evaluated relative to targets, timing, and messages strategies. The case method approach is used to review and evaluate the strengths and weaknesses of IMC strategy and planning relative to brand management. Formerly listed as ADVT 3307. Credit cannot be given for both ADVT 4300 and ADVT 3307. Prerequisite: JOUR 1345, ADVT 2337, 60 or more hours earned and ADVT math requirement (six hours to include MATH 1308, Elementary Statistical Analysis, with a course grade of C (2.0/4.0 scale) or above, and three hours of College Algebra or higher).

ADVT 4301 ADVERTISING AND IMC CAMPAIGNS (3-0) Advanced study in the application of advertising and marketing communication theories. Advertising campaigns are developed consistent with Integrated Marketing Communication and branding programs. Student agency teams develop speculative advertising and IMC plans for organizations, products and/or brands. Prerequisite: COMM 3303; ADVT 3304, 3305, 3306, 4300 (or concurrent enrollment).

ADVT 4391 CONFERENCE COURSE (3-0) Topic assigned on an individual basis, covering individual research or study in the designated areas. May be repeated when

topic changes, for a maximum of six credit hours. Prerequisite: COMM 2315 and 60 or more hours earned and permission of the department.

ADVT 4393 SPECIAL TOPICS (3-0) Special studies in advertising. Topic varies from semester to semester. May be repeated when topic changes, for a maximum of six credit hours. Prerequisite: COMM 2315 and 60 or more hours earned and permission of the department.

ADVT 4395 PROFESSIONAL INTERNSHIP (10-0) Individual research while working with business and industry. Individual conference to be arranged. Prerequisite: COMM 2315, ADVT 3304 or ADVT 3305, 60 or more hours earned and permission of the department. Graded Pass/Fail.

ANTH 1306 INTRODUCTION TO ANTHROPOLOGY (3-0) This course, primarily intended for nonmajors and as a first course for students considering majoring in anthropology, provides an overview of the subdisciplines of anthropology: ethnology (cultural anthropology), archaeology, physical (biological) anthropology, and linguistic anthropology.

ANTH 1310 GREAT DISCOVERIES IN ARCHAEOLOGY (3-0) A survey of some of the most spectacular and otherwise significant archaeological discoveries worldwide over the past three centuries. Consideration of particular archaeological sites as case studies to illustrate cultural development from the Stone Age to Medieval times.

ANTH 2307 BIOLOGICAL ANTHROPOLOGY (3-0) Human variation and human evolution. Genetics, living and fossil nonhuman primates, the human skeleton, the fossil record of human evolution, modern human variation and biological adaptation. Formerly ANTH 3307; credit will not be granted for both ANTH 2307 and 3307.

ANTH 2322 GLOBAL CULTURES (3-0) Methods and theories of sociocultural anthropology. Examines systems of social organization and cultural meaning in contemporary human societies. Topics include fieldwork, cross-cultural analysis, applied anthropology, and global perspectives on political, economic, and social institutions. Formerly ANTH 3322; credit will not be granted for both ANTH 2322 and 3322.

ANTH 2339 PRINCIPLES OF ARCHAEOLOGY (3-0) The methods and theories of prehistoric archaeology. The techniques and approaches employed in recovering, dating, and interpreting prehistoric cultural materials. Formerly ANTH 3339; credit will not be granted for both ANTH 2339 and 3339.

ANTH 2349 HONORS PRINCIPLES OF ARCHAEOLOGY (3-0) Methods and theories of prehistoric archaeology. Techniques and approaches employed in recovering, dating and interpreting prehistoric cultural materials. Writing-intensive course including group and individual projects and oral presentations. Prerequisite: Membership in the Honors College or permission of instructor.

ANTH 2359 Myths and Mysteries in

Archaeology (3-0) This course will critically examine pseudoscience, cult archaeology and creationism from a scientific perspective. Through the close examination of case studies we will dispel archaeological myths and mysteries which are often depicted as fantastic or cult archaeology. This course will demonstrate that a strong adherence to scientific investigation can uncover facts about prehistory that are as interesting as the myths.

ANTH 3300 ANTHROPOLOGICAL THEORY (3-0) What is the history of anthropological thought? How was anthropology complicit with colonial politics? What are the core concepts in anthropology? What are the theoretical challenges posed by a feminist anthropology? How is globalization shaping current methodological and theoretical issues in anthropology? By exploring these questions and a wide range of readings this course engages students with core issues in anthropological theory and practice.

ANTH 3311 HUMAN ADAPTATION AND THE CONCEPT OF RACE (3-0) The study of modern human biological variation from an anthropological perspective emphasizing adaptation combined with an examination of the concept of race. Prerequisite: ANTH 1306 or 2307 and junior standing or permission of instructor. (Formerly listed at 4308; credit will be granted only once.)

ANTH 3313 PRIMATE EVOLUTION AND BEHAVIOR (3-0) An overview of the primate order. Primate evolution, ecology, adaptation, and behavior. Prerequisite: ANTH 1306 or 2307 or permission of the instructor.

ANTH 3325 ETHNOGRAPHY OF SOUTH AMERICA (3-0) The indigenous groups of South America, with emphasis on the Aymara and Quechua of the Andes. Topics include culture change, environmental destruction, and preservation of cultural heritage.

ANTH 3328 CIVILIZATIONS OF SOUTH AMERICA (3-0) Complex agrarian civilizations in South America, concentrating on political, social, and cultural developments of the Chavin, Nazca, Moche, Tiahuanaco, Wari-Tiahuanaco, Inca, and Conquest periods. Formerly listed as ANTH 4328. Credit cannot be given for both ANTH 3328 and 4328.

ANTH 3329 PEOPLES OF AFRICA (3-0) Survey of peoples and cultures of Africa with emphasis on sub-Saharan Africa. Regional cultural geography and history is covered, as well as ethnography of specific communities. Role of African studies in anthropology and representation of African cultures. Problems and potential of contemporary Africa also addressed.

ANTH 3330 CULTURAL DIVERSITY AND IDENTITY (3-0) The ways identity is constructed in contemporary societies in an increasingly complex and multicultural world. Ethnic, racial, gender, and class identities. How and when identity is asserted and assigned, and how it can both draw boundaries and forge ties between peoples. Formerly listed as ANTH 2350. Credit cannot be given for both ANTH 2350 and 3330. Also listed as MAS 3330; credit cannot be granted for both ANTH 3330 and MAS 3330.

ANTH 3331 CULTURE AND PERSONALITY (3-0) The interplay of culture and personality in various Western and non-Western societies. The relationship of specific practices to the development of personality and the psychological effects of colonization, modernization, and economic development of traditional societies.

ANTH 3333 NORTH AMERICAN INDIANS (3-0) North American Indian cultures and their development both before and after European contact.

ANTH 3336 ANTHROPOLOGY OF RELIGION (3-0) A crosscultural study of magic and religion. Theories of the origin and function of magic and religion in pre-industrial societies.

ANTH 3338 Comparative Kinship and Family Systems (3-0) Variation in kinship and family systems from crosscultural and evolutionary perspectives. Structure, function, and dynamics of kinship and family systems as adaptations to diverse ecological, social, and historical circumstances. Implications of this approach for understanding kinship and family in American society also addressed. Formerly listed as ANTH 4338. Credit cannot be given for both ANTH 3338 and 4338.

ANTH 3339 URBAN ANTHROPOLOGY (3-0) Examines main issues, theoretical approaches and ethnographic methods used by anthropologists working in cities. Also discusses relevant contemporary topics such as growth of global cities, gentrification, poverty and inequality, and the economic, social and cultural integration of international immigrants in U.S. cities.

ANTH 3341 RESEARCH METHODS IN CULTURAL ANTHROPOLOGY (3-0) Observational techniques, participant-observation, hypothesis testing, research design, use of the computer in research, analysis, and report writing, and oral presentations of research reports. Satisfies oral communication and computer use competence requirements. Prerequisite ANTH 1306 or 2322 or permission of instructor.

ANTH 3348 ANTHROPOLOGY OF MIGRATION (3-0) This course focuses on the expanding field of migration studies in social and cultural anthropology. It traces the history of migration studies in anthropology, discusses the major theoretical contributions of anthropologists to the interdisciplinary field of migration, and addresses key contemporary topics in migration studies including globalization, transnational communities, gender, identity, and citizenship. The course heavily relies on ethnographic case studies of different immigrant populations in the U.S. written by anthropologists in the recent past.

ANTH 3349 ANTHROPOLOGY OF GLOBALIZATION (3-0) The forces of economic globalization now reach every corner of the world to the point that few societies have been untouched by their impact. This course examines the forces that drive globalization and their repercussions upon local communities around the world. It examines how economic globalization affects the lives of real people in developing and industrialized

countries as well as in small-scale societies traditionally studied by anthropologists.

ANTH 3350 NORTH AMERICAN ARCHAEOLOGY (3-0) Prehistoric cultural adaptations in North America from human arrival to European contact. Topics treated include the question of when and where the first Native Americans arrived; the beginnings of village and farming life; and the development of Puebloan and "Mound-building" cultures.

ANTH 3353 STONE AGE HUNTERS AND FARMERS (3-0) Human adaptations and cultural evolution in the Old World from the earliest African sites over two million years ago to the domestication of plants and animals about ten thousand years ago. Formerly ANTH 2353; credit cannot be granted for both ANTH 2353 and 3353.

ANTH 3355 THE RISE OF CIVILIZATION (3-0) The development of complex cultures from village farming societies in various regions of the Old and New Worlds. The civilizations of Mesopotamia, Egypt, and Mesoamerica, among others, will be treated, along with general questions concerning the rise, development, and collapse of early civilizations. Formerly ANTH 2355; credit will not be granted for both ANTH 2355 and 3355.

ANTH 3366 SEX, GENDER, AND CULTURE (3-0) The ways gender and sexuality are culturally constructed. Readings include ethnographies, life histories, and fiction. Debates within anthropology and within specific cultures over maleness and femaleness. Offered as ANTH 3366 and WOMS 3366; credit will be granted only once.

ANTH 3369 MEDICAL ANTHROPOLOGY (3-0) Medical systems studied cross-culturally to understand how environmental, biological, social, and cultural factors affect disease and health. The cultural dynamics of traditional practitioners and rituals within the health care system. Methods of articulating modern medicine with traditional medicine are discussed.

ANTH 3370 ARCHAEOLOGY OF THE PREHISTORIC AEGEAN (3-0) Origin, evolution and decline of the first high civilizations in Europe, namely the Minoans on the island of Crete and the Mycenaeans in Greece. Stone Age background and Early Bronze Age seafaring in the Cycladic Islands; Late Bronze Age society, economy, and religion; art and architecture of the Minoan and Mycenaean palaces; Linear A and B tablets; Mycenaean collapse and the beginning of the Iron Age; Homer's Iliad, archaeology and the Trojan War.

ANTH 3371 ARCHAEOLOGY OF GREECE (3-0) Material evidence relevant to our understanding of classical Greek culture and society from the collapse of the Mycenaean Empire through the Hellenistic Period (ca. 1200-31 B.C.). Examination of the magnificent (temples, sculpture, athletic monuments, ships) and the mundane (domestic architecture, pottery, crafts, coinage, inscriptions, architecture and artifacts of civic life, burials). Archaeological evidence will be considered in light of contemporary historical sources.

ANTH 3372 ARCHAEOLOGY OF THE

ANCIENT NEAR EAST (3-0) Survey of the cultures of Mesopotamia, Syria, Palestine, and Anatolia from the earliest agricultural settlements to the late first millennium B.C. based on the surviving archaeological remains. Among the topics covered: Nature of early urbanism; development of religious and economic hierarchies; origins and impact of writing; interrelationships among early states.

ANTH 3373 ARCHAEOLOGY OF EGYPT (3-0) The culture of ancient Egypt from its earliest occupation until the Arab invasion (7th century A.C.), with emphasis on the first 20 pharaohnic dynasties (third and second millennia B.C.). Egyptian social, religious, economic and political development traced through the surviving material culture (architecture, art, industries, artifacts of daily life, funerary remains, etc.) supplemented by historical and literary evidence as pertinent. Egypt's relations with neighboring regions (Crete, Anatolia, Palestine, Nubia and Libya) considered.

ANTH 3374 ARCHEOLOGY OF EUROPE (3-0) Ancient Europe is a mosaic of archaeological regionalism whose complexity is arguably unparalleled elsewhere in the world. This course surveys the material remains of several prominent ancient cultures from Iberia to the Danube, from Scandinavia to Greece, dating from stone age to medieval times. Emphasis will be on understanding the various regional traditions and their interactions, and on explicating trends in technology, economy and religion in European society during this long period. Among the topics to be examined: Paleolithic hunters and artists; agricultural origins; megalithic monuments; bronze metallurgy and its ramifications; the first high civilizations in the Mediterranean; the rise of the Celts; the coming of iron; impact of Romanization; the nature of Viking exploration and expansion.

ANTH 3409 HUMAN EVOLUTION (3-2) Paleoanthropology; an exploration of the fossil evidence for the evolution of our taxonomic family, the Hominidae, and earlier primate ancestors. Prerequisite: ANTH 2307, or permission of the instructor.

ANTH 4191 CONFERENCE COURSE (1-0) Topics assigned on an individual basis covering personal research or study in the designated area. Topics assigned on an individual basis covering personal research or study in the designated area. Prerequisite: permission of the instructor.

ANTH 4291 CONFERENCE COURSE (2-0) Topics assigned on an individual basis covering personal research or study in the designated area. Topics assigned on an individual basis covering personal research or study in the designated area. Prerequisite: permission of the instructor.

ANTH 4315 GROWTH, DEVELOPMENT, AND EVOLUTION (3-0) A survey of topics at the nexus of modern human biological research in growth and development and the evolutionary record of hominid subadults. Prerequisite: ANTH 2307 or permission of the instructor.

ANTH 4322 PROBLEMS IN ANTHROPOLOGY (3-0) Intensive examination of an important problem in anthropological research selected by the instructor. May be repeated

for credit whenever the topic varies.

ANTH 4342 TOPICS IN CULTURAL ANTHROPOLOGY (3-0) Selected topics, to include anthropological theory, population and cultural ecology, semiotics, and humanistic anthropology. May be repeated for credit with departmental permission.

ANTH 4345 VISUALIZING CULTURE (3-0) This advanced course introduces students to key concepts in Visual Anthropology. This course highlights the contribution of anthropological methods in theorizing the visual as an everyday site for the construction of nationalist, gender, ethnic, and class identities. Readings are drawn from diverse geographical regions. Visual material discussed in class will include ethnographic films, art, graphic novels, comics, illustrated magazines, virtual exhibitions and soap operas. Assignments include a writing and research component, and team-based exercises.

ANTH 4348 POLITICAL ANTHROPOLOGY (3-0) Relationships among power, identity, and culture in cross-cultural perspective. Traditional political systems, political symbols and rituals, gender and power, and the relationship between domination and resistance. How culture influences the ways in which men and women get power, use power, and resist power.

ANTH 4350 MESOAMERICAN ARCHAEOLOGY (3-0) Covers the cultural development in Mesoamerica during the past 12,000 years, from hunting and gathering lifeways, through the rise of complex societies, to the Spanish conquest. Students will examine the steps from which the early inhabitants of Mexico, Belize, Guatemala, Hondurus and El Salvador developed into the great civilizations of Ancient Mesoamerica. In this course students will trace the emergence of Olmecs, Zapotecs, Maya, Toltecs, and the Aztecs and explore the factors that contributed to their appearance and decline. New approaches, theories, and recent discoveries within the field of Mesoamerican archaeology will be examined.

ANTH 4358 TOPICS IN ARCHAEOLOGY (3-0) Selected topics, to include examination of specific archaeological cultures of the Old World, archaeological theory, and archaeology and pseudoscience. May be repeated for credit with departmental permission. Formerly listed as ANTH 4358.

ANTH 4391 CONFERENCE COURSE (3-0) Topics assigned on an individual basis covering personal research or study in the designated area. Topics assigned on an individual basis covering personal research or study in the designated area. Prerequisite: permission of the instructor.

ANTH 4393 INTERNSHIP IN ANTHROPOLOGY (3-0) Supervised internship program, in which students intern at various companies, non-profit and governmental agencies, and museums in the Metroplex. Applied use of anthropology in a non-academic setting. Students will learn skills of career development in anthropology. Requirements include several short assignments and a final report to the instructor. Prerequisite: ANTH 2307, 2322, OR 2339; permission of the instructor; and junior standing.

ANTH 4394 HONORS THESIS/SENIOR PROJECT (3-0) Required of all students in the University Honors College. During the senior year, the student must complete a thesis or project of equivalent difficulty under the direction of a faculty member in the major department.

ANTH 4398 SUMMER FIELD SCHOOL IN ANTHROPOLOGY (3-0) (3 or 6 hours credit). Offered only during the summer session. Experience in methods of field research in ethnography or archaeology. May be repeated for credit if research topic changes.

ANTH 4406 HUMAN OSTEOLOGY (3-2) 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 or fragmented remains, and muscle attachments and articulations. Content useful in forensic anthropology, archaeology, and hominid paleontology.

ANTH 4407 FORENSIC ANTHROPOLOGY (3-2) Estimating age, sex, race, statute, 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. Prerequisite: ANTH 4406 or permission of the instructor.

ANTH 4698 SUMMER FIELD SCHOOL IN ANTHROPOLOGY (6-0) (3 or 6 hours credit). Offered only during the summer session. Experience in methods of field research in ethnography or archaeology. May be repeated for credit if research topic changes.

ARAB 1441 BEGINNING ARABIC I (3-2) Multimedia Immersion in the culture and language of Arabic-speaking countries. Designed to enable students to understand and communicate effectively in Arabic at the beginning level. Credit will not be granted to native speakers of Arabic. No prerequisites.

ARAB 1442 BEGINNING ARABIC II (0-2) Continuation of beginning Arabic. Credit will not be granted to native speakers of Arabic. Prerequisite: ARAB 1441 with a grade of C or better.

ARAB 2313 INTERMEDIATE ARABIC I (3-0) Continued immersion in the culture and language of Arabic-speaking countries. Application of strategies and technology in mastering listening, speaking, reading, and writing at the intermediate level. Credit will not be granted to native speakers of Arabic. Prerequisite: ARAB 1442 with a grade of C or better.

ARAB 2314 INTERMEDIATE ARABIC II (3-0) Continuation of intermediate Arabic. Credit will not be granted to native speakers of Arabic. Prerequisite: ARAB 2313 with a grade of C or better.

ARCH 1242 DESIGN COMMUNICATION II (1-3) A continuation of ARCH 1241 with emphasis on refined technique and more complex drawing problems. Prerequisite: ARCH 1241.

ARCH 1301 INTRODUCTION TO

ARCHITECTURE AND THE DESIGN PROFESSIONS I (3-0) The interrelationships between society, culture, and the built environment. Prerequisite: Department consent.

ARCH 1341 DESIGN COMMUNICATIONS (2-4) The development of visual perception and graphic communication utilizing an intensive investigation of freehand drawing with emphasis on refined technique and more complex drawing problems. Prerequisite: Restricted to Architecture-intended and Interior Design-intended majors.

ARCH 2300 MASTERWORKS OF WESTERN ARCHITECTURE (3-0) Selected architectural complexes as representative of various periods of Western culture. Stresses cultural relevance rather than stylistic analysis. Intended as humanities elective for non-architecture majors.

ARCH 2303 HISTORY OF ARCHITECTURE AND DESIGN I (3-0) An historical and analytical review of the art of architecture and design with the physical, religious, social, economic, and political factors which shaped them from prehistory through the Middle Ages. Prerequisite: ARCH 1301 and ARCH 1341. Restricted to Architecture-intended and Interior Design-intended majors.

ARCH 2304 HISTORY OF ARCHITECTURE AND DESIGN II (3-0) An historical and analytical review of the art of architecture and design with the physical, religious, social, economic, and political factors which shaped them from the Renaissance to the present. Restricted to Architecture-intended and Interior Design-intended majors.

ARCH 2551 BASIC DESIGN AND DRAWING I (3-6) An introduction to design, design drawing, and color theory utilizing lectures and studio exercises. Two- and three-dimensional studio exercises develop a sensibility to design fundamentals and vocabulary. Emphasis on form, color, texture, and spatial determinants. Prerequisite: Credit or concurrent enrollment in ARCH 2303. Restricted to Architecture-intended and Interior Design-intended majors.

ARCH 2552 BASIC DESIGN AND DRAWING II (3-6) A continuation of ARCH 2551 with emphasis on three-dimensional design fundamentals with small-scale spatial and architectural applications. Prerequisite: ARCH 2551. Credit or concurrent enrollment in ARCH 2304. Restricted to Architecture-intended and Interior Design-intended majors.

ARCH 3323 CONSTRUCTION MATERIALS AND METHODS (3-0) The nature of materials and structural concepts to be used in the construction process. Prerequisite: ARCH 2552. Junior standing in program. Restricted to Architecture majors.

ARCH 3324 STRUCTURES I (3-0) An introduction to architectural structures, including statics and strength of materials, with emphasis on design in timber. Prerequisite: ARCH 3323, PHYS 1441, MATH 1324, MATH 1325. Junior standing in program. Restricted to Architecture majors.

ARCH 3331 ARCHITECTURE AND

ENVIRONMENT (3-0) An overview of sustainable design integrated with natural resource conservation. Prerequisite: ARCH 2552. Junior standing in program. Restricted to Architecture majors.

ARCH 3337 SITE DESIGN (3-0) The related site design process includes site planning pertaining to land use, case studies, siting of structures, codes, and topography. Prerequisite: Junior standing in program. Restricted to Architecture majors.

ARCH 3343 ARCHITECTURE COMPUTER GRAPHICS (DESIGN COMMUNICATION III) (2-4) An advanced course to develop visual sensitivity and awareness of digital techniques to enable the student to study design ideas and present those ideas in the various design disciplines. Emphasis on the relationship of computer graphics with the design process. Prerequisite: Junior standing in program. Restricted to Architecture majors.

ARCH 3553 DESIGN STUDIO: ARCHITECTURE I (3-6) The application of basic design principles/spatial concepts toward the synthesis of simple building types. Credit will be given for only one of ARCH 3553 or INTD 3553. Prerequisite: ARCH 2552. Credit or concurrent enrollment in ARCH 3323 and ARCH 3343. Junior standing in program. Restricted to Architecture majors.

ARCH 3554 DESIGN STUDIO: ARCHITECTURE II (3-6) A continuation of ARCH 3553, with an increased complexity and scale of projects, incorporating a variety of design theory and technical/site considerations. Prerequisite: ARCH 3323, 3343, 3553. Credit or concurrent enrollment in ARCH 3324 and ARCH 3337. Junior standing in program. Restricted to Architecture majors.

ARCH 4191 CONFERENCE COURSE (1-0) Independent study guided by an instructor on a regular basis. May be repeated for credit. Prerequisite: Permission of the instructor or the Architecture Undergraduate Advisor.

ARCH 4305 THE CITY OF ROME (3-0) History, topography, and monuments of the city of Rome and its environs from its legendary founding in 753 B.C. until the 20th Century. Urban form and architecture will be inspected in context of contemporaneous culture, with special emphasis on imperial and papal Rome. Prerequisite: Department consent. Restricted to Architecture and Interior Design Majors.

ARCH 4306 URBAN DESIGN THEORY (3-0) Design theory and its application to the urban scale, as applied to historical and contemporary examples. Prerequisite: ARCH 2552. Department consent. Junior standing in program. Restricted to Architecture and Interior Design majors.

ARCH 4308 HISTORY OF URBAN FORM (3-0) The history of cities as physical form, influenced by political, economic, and social forces. Prerequisite: Department consent. Restricted to Architecture and Interior Design majors.

ARCH 4309 THE CITY OF LONDON (3-0) History, topography, and monuments of Greater London from before the Roman

colonization in the First Century until the 20th Century. Emphasis will be placed upon London's growth into a world capital since the Great Fire of 1666, stressing problems of transportation in 19th and 20th Centuries. Prerequisite: Department consent. Restricted to Architecture and Interior Design majors.

ARCH 4310 AMERICAN ARCHITECTURE (3-0) Architecture of the United States from the 17th Century to World War I. Prerequisite: ARCH 2303, ARCH 2304. Junior standing in program. Restricted to Architecture and Interior Design majors.

ARCH 4311 ARCHITECTURAL THEORY (3-0) Concepts, philosophy, and models of architecture and allied arts of design with specific application to 20th Century problems. May be repeated for credit as specific topics vary. Prerequisite: ARCH 2303, ARCH 2304. Junior standing in program. Restricted to Architecture and Interior Design majors.

ARCH 4314 HISTORIC PRESERVATION AND RESTORATION (3-0) 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. Prerequisite: ARCH 2303, ARCH 2304. Junior standing in program. Restricted to Architecture and Interior Design majors.

ARCH 4315 TOPICS IN THE HISTORY OF ARCHITECTURE AND DESIGN (3-0) Selected topics in architecture and the allied arts of design drawn from among the Ancient Mediterranean, the Classical World, the Middle Ages, selected great cities, the 19th Century, and the non-western world. May be repeated for credit as specific topics vary. Prerequisite: ARCH 2303, ARCH 2304. Junior standing in program. Restricted to Architecture and Interior Design majors.

ARCH 4316 MODERN ARCHITECTURE I (3-0) Development of 20th Century architecture from the origins of the modern movement in the 1890s until its diffusion in Europe and America in the 1930s. Prerequisite: ARCH 2303, ARCH 2304. Junior standing in program. Restricted to Architecture and Interior Design majors.

ARCH 4317 MODERN ARCHITECTURE II (3-0) Development of 20th Century architecture from the diffusion of modernism in the 1930s to the present day. Prerequisite: ARCH 2303, ARCH 2304. Junior standing in program. Restricted to Architecture and Interior Design majors.

ARCH 4318 RENAISSANCE ARCHITECTURE (3-0) Development of Renaissance and Mannerist architecture in Italy and its diffusion throughout Europe in the 15th and 16th Centuries. Prerequisite: ARCH 2303, ARCH 2304. Junior standing in program. Restricted to Architecture and Interior Design majors.

ARCH 4320 BAROQUE ARCHITECTURE (3-0) The invention and development of the Baroque style in Italy in the 17th and 18th centuries and its diffusion and interpretation throughout Europe and America. Prerequisite: ARCH 2303, ARCH 2304. Junior standing in program. Restricted to Architecture and Interior

Design majors.

ARCH 4321 STRUCTURAL SYSTEMS IN BUILDINGS (3-0) 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 3324. Junior standing in program. Restricted to Architecture majors.

ARCH 4325 ENVIRONMENTAL CONTROL SYSTEMS I (3-0) Acoustics and illumination and their significance in the total design. Prerequisite: PHYS 1442. Junior standing in program. Restricted to Architecture and Interior Design majors.

ARCH 4326 ENVIRONMENTAL CONTROL SYSTEMS II (3-0) Climate controls, mechanical and electrical systems, and their significance in the total design. Prerequisites: ARCH 4325. Junior standing in program. Restricted to Architecture and Interior Design majors.

ARCH 4329 COMPUTERS AND DESIGN (3-0) The range and potential of digital computer applications in the design professions. Prerequisite: ARCH 3343. Junior standing in program. Restricted to Architecture and Interior Design majors.

ARCH 4330 ENERGY USE AND CONSERVATION IN ARCHITECTURE (3-0) Basic concepts of the efficient use and conservation of energy related to architectural design principles. Prerequisite: Junior standing in program. Restricted to Architecture and Interior Design majors.

ARCH 4343 PROBLEMS IN DESIGN, MATERIALS, AND FABRICATION (3-0) 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. Prerequisite: Junior standing in program. Restricted to Architecture and Interior Design majors.

ARCH 4344 CONCEPTUAL DRAWING (3-0) A seminar to explore the aspects of conceptual drawing for the architect and the relationship of design ideas in the drawing process. Prerequisite: Junior standing in program. Restricted to Architecture and Interior Design majors.

ARCH 4346 CONSTRUCTION DRAWINGS (3-0) The techniques of building construction, the communication of technical information, and the process of preparing contract drawings for construction. Prerequisite: ARCH 3343. Junior standing in program. Restricted to Architecture and Interior Design majors.

ARCH 4347 CONSTRUCTION DRAWINGS II (3-0) Advanced communication of technical information concerning building materials and methods of construction, life safety systems, barrier-free and handicapped design, and the process of preparing detailed contract documents for construction. Prerequisite: ARCH 3343. Junior standing in program. Restricted to Architecture and Interior Design majors.

ARCH 4348 ARCHITECTURAL PHOTOGRAPHY I (3-0) Basic photography for architects. The use of photography as an

investigative and presentation device in architecture. Emphasis on composition and black and white technique. Prerequisite: ARCH 2552. Junior standing in program. Restricted to Architecture and Interior Design majors.

ARCH 4349 ARCHITECTURAL PHOTOGRAPHY II (1-6) Architectural photography. Advanced techniques in photography, including use of view camera and lighting techniques, and their application in photographing architecture and architectural models. Prerequisite: ARCH 4348 or equivalent as approved by instructor. Junior standing in program. Restricted to Architecture and Interior Design majors.

ARCH 4353 HISTORY OF LANDSCAPE ARCHITECTURE (3-0) Development of landscape design from prehistory through 19th century with emphasis upon rural gardens and urban parks as representative of the social, cultural, and intellectual circumstances of the times and places in which they were created. Prerequisite: ARCH 2303, ARCH 2304. Junior standing in program. Restricted to Architecture and Interior Design majors.

ARCH 4391 CONFERENCE COURSE (3-0) Independent study guided by an instructor on a regular basis. May be repeated for credit. Prerequisite: Permission of the instructor or the Architecture Undergraduate Advisor.

ARCH 4395 SELECTED TOPICS ARCHITECTURE (3-0) Studio and lecture courses to explore and present selected topics in architecture and design. May be repeated for credit as topics change. Prerequisite: Junior standing in program. Restricted to Architecture and Interior Design majors.

ARCH 4556 DESIGN STUDIO: ARCHITECTURE III (3-6) Advanced architectural design problems in programming schematic organization, synthesis and design of buildings in their environmental context. Prerequisite: ARCH 3324, 3337, 3343, 3554. Credit or current enrollment in ARCH 4321. Senior standing in program. Restricted to Architecture majors.

ARCH 4557 DESIGN STUDIO: ARCHITECTURE IV (3-6) Advanced architectural design problems in programming, schematic organization, synthesis and design of buildings in their environmental context. Prerequisite: ARCH 4321 and ARCH 4556. Senior standing in program. Restricted to Architecture majors.

ARCH 4591 CONFERENCE COURSE (5-0) Independent study guided by an instructor on a regular basis. May be repeated for credit. Prerequisite: Permission of the instructor or the Architecture Undergraduate Advisor. Senior standing in program. Restricted to Architecture majors.

ARCH 4595 SELECTED TOPICS ARCHITECTURE (5-0) Studio and lecture courses to explore and present selected topics in architecture and design. May be repeated for credit as topics change. Prerequisite: ARCH 2552.

ART 1300 ART ESSENTIALS (3-0) This is a required course intended to establish a solid overview of the Art and Art History

Department for all first semester UTA students who intend to declare a studio art or art history major. Topics for the class can include: visiting artist speakers, attendance of exhibitions, writing assignments, surviving the advising process and concentration portfolio review, and library resources. Other topics may be discussed. This course may only be taken once for credit.

ART 1301 ART APPRECIATION (3-0) Intended to develop an understanding, appreciation, and enjoyment of art in its many forms. Recommended as a fine arts elective for non-art majors.

ART 1305 TWO-DIMENSIONAL DESIGN (2-4) The principles and elements of two-dimensional design as expressed through concepts and problems with various media and techniques. Lab fee: $35

ART 1306 THREE-DIMENSIONAL DESIGN (2-4) Three-dimensional design principles will be explored to expand knowledge of various materials and develop an awareness of spatial elements as a creative expression. Formerly listed as ART 1303. Credit will not be granted for both 1303 and 1306. Lab fee: $35

ART 1307 DRAWING FUNDAMENTALS (2-4) Basic drawing principles and elements in varied media including such concepts and skills as hand-eye coordination, perceptual acuity, spatial organization, and interpretation of directly observed subjects.

ART 1309 ART OF THE WESTERN WORLD I: GREECE THROUGH RENAISSANCE (3-0) Major developments in art, from Archaic Greece through the European Renaissance.

ART 1310 ART OF THE WESTERN WORLD II: BAROQUE TO MODERN (3-0) The work of major figures in European and American art from the 17th century to the present.

ART 1317 THE ART OF NONWESTERN TRADITIONS (3-0) This course is designed to introduce students to works of art in various media developed in isolation from the European tradition, including the arts of the Near East, Asia, the Ancient Americas, Africa, and Oceania. Using visual arts as a tool, this course will introduce students to the diverse social customs, religions, and beliefs of nonwestern peoples.

ART 2300 METHODS FOR THE STUDY OF ART HISTORY (3-0) Sources and procedures of art historical research. Introduction to methodologies of art historical scholarship. Use of computer and data retrieval is emphasized.

ART 2304 DIGITAL DESIGN (2-4) This course is a continuation of ART 1305 and 1306 with an emphasis on digital and time-based media as applied to design concepts. Formerly listed as ART 1304. Credit will not be granted for both 2304 and 1304. Lab fee: $40

ART 2308 DRAWING CONCEPTS (2-4) Application of specific drawing skills with emphasis on personal expression. Course content will focus on conceptual development and media exploration as outlined by instructor. Previous drawing experience strongly recommended. Formerly listed as ART 1348. Credit will not

be granted for both 1348 and 2308. Prerequisite: ART 1305 and ART 1307 or permission of instructor.

ART 2342 GLASSBLOWING (2-4) The manipulation, construction, and experimentation of glass as a sculptural medium. Emphasis will be on developing technical and aesthetic expertise in glassblowing and related techniques. Exploration of the conceptual application of the material will be addressed. Students who received credit for 3342 prior to Fall 2010 may not receive credit for ART 2342. Prerequisite: ART 1306 or permission of the academic advisor.

ART 2354 TYPOGRAPHY (2-4) Creative problem solving using basic elements of visual communication with an introduction to typography, composition, and materials. Prerequisite: ART 2304 or permission of the instructor.

ART 2355 LAYOUT (2-4) Development and application of concept, layout, and design as related to visual communication. Prerequisite: ART 2304 or permission of advisor.

ART 2358 INTRODUCTION TO FILM/VIDEO (2-4) Introduction to the video and filmmaking production process, techniques, history and aesthetics through the use of digital video, basic film, and basic digital (computer) video and audio editing. Students will write, produce, and edit a number of short original works.

ART 2359 INTRODUCTION TO PHOTOGRAPHY (2-4) Basic photographic imaging. Assignments emphasize an artistic approach and include black-and-white silver materials and darkroom procedure.

ART 2371 PAINTING (2-4) Fundamentals of painting, composition and techniques both traditional and contemporary. Prerequisite: ART 1305 and 1307 or permission of the instructor.

ART 3111 DIRECTED SCREENINGS (3-0) A survey of screening of significant films. The course will examine the emergence of the film form, the elements of film language, the significance of film form and style, the dynamics of new technology and the workings of motion pictures as a means of narrative expression. Significant motion pictures will be screened weekly with commentary or discussion by film faculty in class. All film/video/screenwriting majors must take at least three sections (3 credit hours) of the class. Content (films screened) will vary in a three-semester rotation.

ART 3112 DIRECTED SCREENINGS 2 (3-0) A survey of screening of significant films. The course will examine the emergence of the film form, the elements of film language, the significance of film form and style, the dynamics of new technology and the workings of motion pictures as a means of narrative expression. Significant motion pictures will be screened weekly with commentary or discussion by film faculty in class. All film/video/screenwriting majors must take at least three sections (3 credit hours) of the class. Content (films screened) will vary in a three-semester rotation.

ART 3113 DIRECTED SCREENINGS 3 (3-0) A survey of screening of significant films. The course will examine the emergence of the

film form, the elements of film language, the significance of film form and style, the dynamics of new technology and the workings of motion pictures as a means of narrative expression. Significant motion pictures will be screened weekly with commentary or discussion by film faculty in class. All film/video/screenwriting majors must take at least three sections (3 credit hours) of the class. Content (films screened) will vary in a three-semester rotation.

ART 3302 ART OF ANTIQUITY (3-0) Art and architecture of Greco-Roman antiquity, beginning with the Aegean Bronze Age (ca 2500 BC) and concluding with the Late Roman Empire (4th century AD). Emphasis on the political and ritual role of art, especially in Periclean Athens and Augustan Rome.

ART 3304 JAPANESE ART & ARCHITECTURE (3-0) Introduces students to the art and architectural traditions of Japan from the Jomon (12,000/10,500 - 300 BCE) through the Tokugawa periods (1615 - 1868). The course will focus on the cultural, social, and political movements that informed artistic changes over time. Prerequisite: ART 1317 or permission of the instructor.

ART 3306 BYZANTINE AND MEDIEVAL ART (3-0) Art and architecture of the Mediterranean area and Northern Europe, beginning with Early Christian and Byzantine period (4th century AD) and concluding with the Late Middle Ages (14th century AD). Special attention is given to the religious and political context of art including Christian and Islamic influences. Prerequisite: ART 1309 and ART 1310.

ART 3307 THE EARLY RENAISSANCE (3-0) Developments in the art and architecture of Italy in the 13th and 14th Centuries focused on the changing status of the artist and the political and religious role of art. Includes a workshop based on 14th century recipes for the making of art. Prerequisite: ART 1309 and ART 1310.

ART 3308 HIGH RENAISSANCE (3-0) Developments in the art and architecture of 16th century Italy (Leonardo, Raphael, and Michelangelo) understood in historical context. Themes include the notion of creative genius in the Renaissance; Mannerism and the Counter-Reformation; the restoration of the Sistine Chapel. Prerequisite: ART 1309 and ART 1310.

ART 3310 FILM AS ART (3-0) The history and aesthetics of the motion picture from 1895 to the present day. Screening and analysis of film as an artistic medium, focusing on various technical innovations, filmmakers, and landmarks of film history. Prerequisite: ART 1309 and ART 1310.

ART 3311 AMERICAN ART (3-0) The role of art in the shaping of a national identity with emphasis on our beginnings and attention to vernacular and indigenous traditions. Prerequisite: ART 1309 and ART 1310.

ART 3312 NEO-CLASSICISM AND ROMANTICISM (3-0) European art from c.1760 to c.1840. Emphasis is placed on cultural and historical contexts. Prerequisite: ART 1309 and ART 1310.

ART 3313 BACKGROUNDS OF MODERN ART (3-0) Painting, sculpture, and photography

of the period c. 1850-1900 in western Europe, focusing on Realism, Impressionism, Post-Impressionism and Symbolism (fin de siecle). Prerequisite: ART 1309 and ART 1310.

ART 3314 MODERN ART (3-0) The history of European and American art from the late 19th century to the mid-20th century. Emphasis on the formal and conceptual evolution of modernism in art and society, and on the rise of the avant-garde. Prerequisite: ART 1309 and ART 1310.

ART 3315 IMPRESSIONISM (3-0) The history, theory, and aesthetics of Impressionist painting in France, from 1860 to 1900. Prerequisite: ART 1309 and ART 1310.

ART 3316 ANCIENT EGYPTIAN & NEAR EASTERN ART & ARCHAEOLOGY (3-0) Introduces select aspects of the material culture of ancient Mesopotamia and Egypt, with emphasis on religion and notions of kingship. Prerequisite: ART 1317 or permission of the instructor.

ART 3319 ART & ARCHITECTURE OF INDIA (3-0) Explores the history of Indian art and architecture, beginning with the Harappan civilization and progressing to the present. India's religious and cultural impact on its East and Southeast Asian neighbors will also be examined. Prerequisite: ART 1317 or permission of the instructor.

ART 3320 ART OF THE ANCIENT AMERICAS (3-0) Art and architecture of the Olmecs, Maya, Aztecs, Inca, Anasazi and other selected cultures of Mexico, Central America, South America and North America. Prerequisite: ART 1309 and ART 1310.

ART 3321 CHINESE ART & ARCHITECTURE (3-0) Introduces students to the art and architectural traditions of China from Neolithic times (5th to 3rd millennium BCE) to the end of the Qing dynasty in the early 20th century. The course will focus on the cultural, social, and political movements that informed artistic changes over time. Prerequisite: ART 1317 or permission of the instructor.

ART 3322 TEACHING ART (3-0) Teaching Art studies the theories of a childs artistic development and develops knowledge, skills, and strategies for teaching. Students will research areas of study and present the results of that research to the class. In a teaching presentation each student will demonstrate how to teach students with different learning abilities who come from diverse backgrounds. Students will develop age appropriate lessons using TEKS which include art history and culture. Permission of instructor or academic advisor required.

ART 3323 EXPLORATION IN 2D STUDIO (2-4) Exploration in 2D Studio as a continuation of Teaching Art addresses the diverse uses of media for 2D artwork. Students will use art history, culture, and aesthetics to develop appropriate lessons for grades K-12. May be repeated with a different emphasis for additional credit. Prerequisite: ART 3322.

ART 3325 STUDIES IN THE BAROQUE (3-0) Developments in the art and architecture of Baroque Europe (Italy, Low Countries and Spain), with an emphasis on patronage and the social, religious and historical context of artistic production. May be repeated for

credit. Prerequisite: ART 1309 and ART 1310.

ART 3331 BRITISH ART (3-0) An overview of British art from prehistory to the present with an emphasis on cultural and historical contexts. Prerequisite: ART 1309 and 1310.

ART 3340 KILN FORMED GLASS (2-4) The exploration of various non-blowing techniques of glass construction and manipulation. Students will use kilns to explore fusing, slumping, pate de verre, and casting. May be repeated for credit. Prerequisite: ART 1306 or permission of the instructor.

ART 3341 SCULPTURE (2-4) An exploration of sculptural forms, concepts, and methods through various media. Emphasis on contemporary processes and individual expression. May be repeated for credit. Prerequisite: ART 1306. For non-art majors, permission of the instructor.

ART 3342 INTERMEDIATE GLASSBLOWING (2-4) Continued technical and aesthetic development, manipulation, construction, and experimentation with glass as a sculptural medium. Other techniques may be introduced in order to explore a stronger conceptual application of glass. Prerequisite: ART 2342 or permission of the academic advisor.

ART 3343 PRINTMAKING (2-4) Development in the technical and conceptual practice of printmaking. Emphasis placed on an understanding of the history, theory and philosophy of independently published prints. Both traditional and nontraditional processes for creating printed images will be explored, including: lithography, relief, intaglio, silk screen, monoprints, book arts, and photomechanical technologies. Prerequisite: ART 1305 and 1307 or permission of the instructor.

ART 3344 NEON ART (2-4) Basic techniques of luminous glass tube manipulation as a contemporary art form. Emphasis on hot glassbending, design, patternmaking and electrical systems. May be repeated for credit. Prerequisite: ART 1306 or permission of the instructor.

ART 3345 WORKS ON PAPER (2-4) The class will focus on works on paper as a finished work of art as opposed to being preliminary study for paintings, sculptures, and other disciplines. Class may work in a variety of media including watercolor, drawing, collage, painting and mixed media. Personal creativity and development is stressed along with critical thinking and analysis. May be repeated for credit. Prerequisite: ART 1306, 1307, and 2308 or permission of the instructor.

ART 3346 PAPERMAKING (2-4) Procedures for the understanding and development of both Eastern and Western handmade papers. Focus will be on sheet-forming, casting, and marblizing papermaking processes. Emphasis placed on personal expression, process, and innovation. May be repeated for credit. Prerequisite: ART 1305, 1306.

ART 3347 ADVANCED DRAWING (2-4) Conceptual and expressive problems to encourage independent thinking with regard to contemporary drawing issues. May be repeated for credit. Prerequisite: ART

2308.

ART 3348 LIFE DRAWING (2-4) Drawing of the human figure using a variety of media in the solution of figure construction problems with emphasis on perceptual and creative expression. May be repeated for credit. Prerequisite: ART 2308.

ART 3349 WATER MEDIA PAINTING (2-4) Transparent and opaque water color media and techniques. Emphasis on conceptual and manipulative skills. May be repeated for credit. Prerequisite: ART 1305, ART 1307, and ART 2371 or permission of the instructor.

ART 3350 INTRODUCTION TO NARRATIVE SCREENWRITING (2-4) Basic format styles, structures, and requisites of writing narrative film. Students will be required to study scripts, view films, conduct actor readings, produce original works, and complete other assignments. Prerequisite: ENGL 1301 and 1302.

ART 3351 ILLUSTRATION (2-4) Practical approach to concepts, techniques, and problem solving with illustration. May be repeated for up to 9 hours credit. Prerequisite: ART 2354. Advisor permission required to enroll in this course.

ART 3352 DIGITAL IMAGING (2-4) Basic course in computer imaging for art majors. Emphasis is on the introduction and use of the computer as a tool for personal expression. Fundamental principles in electronic media are explored with additional emphasis on experimental and innovative techniques. May be repeated for credit. Lab fee: $40. Prerequisite: ART 2304.

ART 3353 METALS (2-4) Both contemporary and traditional metalworking techniques and concepts, including the construction of small metal forms with a sculptural approach. Emphasis on basic fabrication and manipulation methods. Exploration of integrating other media is also encouraged. Prerequisite: ART 1306. For non-art majors, permission of the instructor.

ART 3354 SIGN AND SYMBOL (2-4) Design and problem solving focusing on transformation of visual elements into logos, logotypes, information and environmental graphics. May be repeated for up to six hours credit. Prerequisite: 2354, 2355, or permission of the advisor.

ART 3355 ADVANCED TYPOGRAPHY (2-4) Typographic theory exploring traditional and non-traditional forms, both historical and contemporary typographic achievements. May be repeated for up to six hours credit. Prerequisite: ART 2354, 2355, or permission of the advisor.

ART 3356 ELECTRONIC DESIGN (2-4) Focus on concept, design, typography, and layout with exposure to contemporary electronic and digital tools as applied in visual communications. May be repeated for up to six hours credit. Prerequisite: ART 2354, 2355, or permission of the advisor.

ART 3357 SUSTAINABLE DESIGN (2-4) An overview of critical environmental issues that affect the contemporary practice of visual communication. Emphasis on ethics, environmental and society responsibility, and creative visual problem solving. Course

may include, but is not limited to, lecture, discussion, reading, and creative design exploration. Prerequisite: ART 2354 or permission of the advisor.

ART 3358 INTERMEDIATE FILM/VIDEO (2-4) Continuation of 2358 with emphasis on more advanced concepts, production techniques, film/video history, aesthetics, basic 16mm film production, digital video post-production and studio editing. Students will propose, write, produce and edit a number of short, original works.

ART 3359 EXPLORATION IN 3D STUDIO (2-4) Exploration in 3D studio as a continuation of Teaching Art addresses the diverse uses of media for 3D artwork. Students will develop appropriate lesson plans for grades K-12 using knowledge of art history, culture, and aesthetics. Permission of instructor or academic advisor required.

ART 3360 INTERMEDIATE PHOTOGRAPHY (2-4) Students use the tools of digital technology to enhance their image-making skills. Topics may include digital film and reflective scanning, fine printing, alternative cameras and formats; to the development of a deeper understanding of the student's place in photo history and criticism. Prerequisite: ART 2304, ART 2359 (or equivalent).

ART 3363 CLAY (2-4) The various methods of construction, manipulation, and decoration of clay. The integration of form, design, and concept, emphasizing clay as an expressive medium. Prerequisite: ART 1306. For non-art majors, permission of the instructor.

ART 3371 INTERMEDIATE PAINTING (2-4) Continued development of painting techniques, composition and exploration of traditional and contemporary media. Specific problem solving assignments, creative thinking, and idea development will be emphasized. Prerequisite: ART 2308, 2371 or permission of the instructor.

ART 3383 MOLDMAKING & CASTING IN CLAY (2-4) Continuation of ceramic media techniques and forming processes. The introduction of moldmaking, mold forming, slipcasting, tile design, kiln firing, and glaze techniques. Prerequisite: ART 3363 or permission of the instructor.

ART 3384 CINEMATOGRAPHY (2-4) An intense study of the visual language/style of film imagery through cinematography, lighting, gaffing, gripping, and extensive camerawork. Students will use digital equipment to shoot exercises, light sets and locations, and learn to accurately expose, color correct, and manipulate motion picture film. Students will also learn the proper use of advanced lighting equipment, professional production standards, camera crew responsibilities, and how to interpret a scene through visuals. Students will work in digital video, Super 16mm, or standard 16 mm film, and in 35 mm stills. Prerequisite: ART 2358, 2359.

ART 3385 SOUND & POST PRODUCTION (2-4) A basic introduction to the critical role editing and sound play in the filmmaking process. It will include audio recording, recorder operations, microphones and booms, how to capture good sound on the stage, sound reports, importance of proper labeling of all film/video elements,

amplitude, frequency, filtering and equalization, what the ear perceives. In postproduction it will focus on the aesthetics of film editing and how the ability to think as a filmmaker comes from personal imagination and a passionate grasp of theory and aesthetics. Prerequisite: ART 2358.

ART 3386 DIRECTING WORKSHOP (2-4) A survey workshop exploring the visualization of script material through the directing of scenes and exercises. Critique and analysis of the exercises. A special focus will be working with the actor along with interpreting the screenplay through the camera and performance, directing the camera and the actor, and running the set. Prerequisite: ART 2358.

ART 3389 CONTEMPORARY ART (3-0) A focus on the period from the mid-20th century to the present emphasizing the aesthetics of late modernism and the beginnings of the postmodern period including Abstract Expressionism, Pop, Minimal, Conceptual, and multicultural approaches. Prerequisite: ART 1309 and ART 1310.

ART 3391 HISTORY OF PHOTOGRAPHY (3-0) The history of still photography from its inception to the present. Emphasis on the conceptual and technical evolution of photography as an artistic medium. Prerequisite: ART 1309 and ART 1310.

ART 3392 HISTORY AND AESTHETICS OF THE VIDEO IMAGE (3-0) History, theory, and analysis of video/film/computer in relation to visualization and new genres. Study of symbolic rhetoric, composition, sound/music, editing, movement, and style. Prerequisite: ART 1309 and 1310.

ART 4100 SENIOR EXHIBITION (1-0) Application of professional practices for graduating BFA art majors. Primary concentration is preparation for BFA exhibition/presentation. Prerequisite: ART 4200 or, for graphics students, ART 4356.

ART 4191 INDEPENDENT STUDY (0-0) Mature, capable students may be permitted to pursue individual art problems. Problems must be stated in writing, a definite conference schedule arranged, and the paperwork must be approved by both the supervising faculty member and the department chair prior to registration. May be repeated for credit for varied subject matter. Prerequisite: B average in art concentration.

ART 4200 PROFESSIONAL PRACTICES (2-0) Professional practices for upcoming graduating BFA art majors in studio and media concentration, excluding graphics. Exploration of professional capabilities applied to media and studio areas. Emphasis on complex professional skills, knowledge and presentation. May be repeated for credit with a different emphasis and permission of the instructor. Lab fee: $8

ART 4201 PORTFOLIO PRESENTATION (0-2) This course is the capstone of the Bachelor of Arts track. Working with their advisor, students will prepare an artistÿs talk about their work and deliver this presentation at an advertised public lecture. This course is to be taken in the student's last semester before graduation.

ART 4291 INDEPENDENT STUDY (0-0) Mature, capable students may be permitted to pursue individual art problems. Problems must be stated in writing, a definite conference schedule arranged, and the paperwork must be approved by both the supervising faculty member and the department chair prior to registration. May be repeated for credit for varied subject matter. Prerequisite: B average in art concentration.

ART 4301 ART AND GENDER (3-0) Approaches to the interpretation of art from the stance of gender and feminism. Emphasis is placed on the work of significant female artists and on the gendered representations of art. Offered as ART 4301 and WOMS 4301; credit will be granted only once. Fulfills the Social/Cultural Studies requirement. Prerequisite: ART 1309 and ART 1310.

ART 4302 GREEK AND ROMAN PAINTING (3-0) Painting in ancient Greece and Rome, from the Greek Geometric through the Roman republican periods. Narrative art of the Greek vase-painting and extant examples of Greek and Roman wall decoration from ancient tombs and houses. Prerequisite: ART 1309 and ART 1310.

ART 4303 ROMAN ART (3-0) The art of Etruria and Rome from the Etruscan Villanovan period through the late empire. Developments of portraiture and illusionism as characteristic aspects of Roman art, the history of Etruscan and Roman wall painting, and the sociopolitical context of art and architecture in monuments of the Roman empire. Prerequisite: ART 1309 and ART 1310.

ART 4304 ETRUSCAN ART (3-0) Art and culture of the Etruscan and neighboring peoples of pre-Roman Italy. Special emphasis on the stylistic characteristics of folk art in primitive Italy and its relation to the orientalizing and classical Greek styles that influenced Etruscan art from the 7th to the 4th Centuries B.C. Prerequisite: ART 1309 and ART 1310.

ART 4306 MID-RENAISSANCE (3-0) Art and architecture in 15th century Italy, beginning with developments in Renaissance Florence. The relation of humanism and science to the visual arts, patronage, and the social and historical contexts of artistic production. Prerequisite: ART 1309 and ART 1310.

ART 4307 SPECIAL TOPICS IN ASIAN ART (3-0) Special studies seminar dealing with various aspects of the history and development of Asian art, architecture, and archeology. May be repeated for credit. Prerequisite: ART 1317 or permission of the instructor.

ART 4308 MUSEUM PRACTICE (2-4) A continuation of ART 3300 with emphasis on current issues and developments in museum practice. The seminar concentrates on the University's Art Gallery, art exhibitions, and guest essayist programs, supplemented by lectures and readings. Prerequisite: ART 1309 and ART 1310.

ART 4310 TOPICS IN FILM STUDY (3-0) Historical surveys of nonfiction film, experimental cinema, and genres (e.g., the western, the gangster film, science-fiction films), as well as geographical or national movements (e.g., German expressionism,

Italian neo-realism, French new wave) and film theory and criticism. The particular subject will change from year to year. Prerequisite: ART 1309 and ART 1310.

ART 4311 SCRIPT TO SCREEN (2-4) A screenwriting course for Film/Video area majors. This course is a high energy merger of a production class and a short film writing class to both write and produce a film per week during the Summer sessions. The students in this class will have a realistic view of the production consequences of writing for the screen. Prerequisite: ART 3350 and permission of instructor.

ART 4312 TOPICS IN NINETEENTH CENTURY ART. (3-0) An in-depth study of topics in European and American art c. 1780 to 1900, such as the art and revolutions (the French Revolution, the American Revolution, 1830, 1848, the Commune); Romanticism; Symbolism. May be repeated for credit as course content changes. Prerequisite: ART 1309 and ART 1310.

ART 4314 TOPICS IN 20TH CENTURY ART (3-0) Topics from c. 1900 to c. 2000, such as analysis of an individual movement, medium, or theme. May be repeated for credit as course content changes. Prerequisite: ART 1309 and ART 1310.

ART 4315 ASPECTS OF CONTEMPORARY ART (3-0) Topics from c. 1970 to the present, such as performance and conceptual art, art in and about the natural environment, post-modernism and critical perspectives, art in the social context, and the genres of the 1980s. May be repeated for credit. Prerequisite: ART 1309 and ART 1310.

ART 4318 ADVANCED DIGITAL IMAGING (2-4) Advanced level course in computer imaging for art majors. Conceptual as well as expressive problems are introduced to encourage independent and creative problem solving in digital imaging. Emphasis is placed on both manipulation of photo-based media and creation of two-dimensional animation. May be repeated for credit. Prerequisite: ART 3352.

ART 4320 Beyond Photography: Working Outside the Image (2-4) This course will examine different approaches to art that are not medium-specific but assumes the student has knowledge of photography as art. Projects will be structured as responses to lectures on topics in modern and contemporary art with emphasis on installation and conceptual work. Prerequisite: 3 hours to be selected from ART 4318, 4344, 4359, 4360, 4363, 4372, or permission of instructor.

ART 4330 18TH CENTURY ART (3-0) A history of European art from the end of the Baroque era through the Rococo and Neoclassical styles to the beginning of Romanticism. Emphasis will be on cultural and global contexts in which paintings, prints, sculptures, and architecture were produced. Prerequisite: ART 1309 and ART 1310.

ART 4340 ADVANCED KILN FORMED GLASS (2-4) Continuation of ART 3340. This class focuses on glass kiln forming techniques and concepts including kiln casting, fusing, slumping, and various cold working processes. Emphasis is on using glass as an expressive and creative art media.

Prerequisite: ART 3340 or permission of instructor.

ART 4341 ADVANCED SCULPTURE (2-4) Advanced work in continuation of ART 3341. Students are encouraged to develop a creative style in their own personal direction. A variety of materials and techniques is explored. May be repeated for credit. Prerequisite: ART 3341 or permission of the instructor.

ART 4342 ADVANCED GLASSBLOWING (2-4) Continued development of ART 3342 with emphasis on advanced technique, manipulation and form development. Course assignments will emphasize personal creativity and exploration. May be repeated for credit. Prerequisite: ART 3342 or permission of instructor.

ART 4343 ADVANCED CLAY (2-4) Further development and focus on techniques and personal expression in sculptural, hand-built, and wheel thrown clay forms. Continuation of kiln firing, moldmaking, slipcasting, and glazemaking. May be repeated for credit. Prerequisite: ART 3363 or permission of the instructor.

ART 4344 ALTERNATIVE PHOTOGRAPHIC PROCESSES (2-4) Methods of manipulating the photographic image. Techniques may include manipulative printing, computer imaging, blueprint, brownprint, platinum/palladium, transfers, silkscreen, intaglio, and lithography. May be repeated for up to six hours credit. Lab fee: $60. Prerequisite: ART 3360 or permission of the instructor.

ART 4345 ADVANCED PRINTMAKING (2-4) Continued study and development of both conceptual and technical practice of printmaking. Emphasis placed on personal expression of ideas as well as the broader implications of printed images. Explorations and innovations will be encouraged. May be repeated for credit. Prerequisite: ART 1305, 1307, and 3343 or permission of the instructor.

ART 4346 GRAPHICS: PORTFOLIO PREPARATION (2-4) This course concentrates on the creation, development, and evaluation of the graphic design portfolio. Course work will include advanced level conceptual assignments and various methods of presentation. May be repeated for credit. Lab fee: $50. Prerequisite: ART 3355 and 4355 with grades of B or better, or permission of the instructor.

ART 4347 PUBLICATION DESIGN (2-4) Philosophy, concepts, and structures of magazine and book design. May be repeated for up to six hours credit. Prerequisite: ART 2354, 2355 with grades of B or better, or permission of the advisor.

ART 4349 VIDEO ART & NEW GENRES (2-4) Advanced work involving production, postproduction, and distribution with a special emphasis on experimental and innovative applications. Instruction may include video integrated with performance, installation, audio/sound art, and computer graphics appropriate to the medium. Lectures, readings, and screenings will frame video art within an historical and critical survey of new genres. May be repeated for up to six hours credit. Prerequisite: permission of the instructor.

ART 4350 DOCUMENTARY FILM/VIDEO (2-4) Using film and video as a tool for creative research, students will produce, write, direct and edit original documentaries or nonfiction films/videos under supervision of the instructor. May be repeated for credit. Prerequisite: ART 3385, 3386, and 3384 or permission of the instructor.

ART 4351 COMMERCIAL FILM/VIDEO (2-4) Commercial and corporate applications of video. Students produce original individual projects integrating concepts and technical skills under supervision of the instructor. May be repeated for credit. Prerequisite: ART 4362 or permission of the instructor.

ART 4352 NARRATIVE FILM/VIDEO (2-4) Narrative storytelling film/video techniques. Students write, produce, direct and edit original, short narrative film/video projects under supervision of the instructor. May be repeated for up to six hours credit. Prerequisite: ART 2358 or 3350 or permission of the instructor.

ART 4353 ADVANCED METALS (2-4) Continued development of ART 3353 with emphasis on advanced techniques, the integration of other materials, manipulation, form design and concept. Course assignments will emphasize personal creativity and exploration. May be repeated for credit. Prerequisite: ART 3353 or permission of the instructor.

ART 4354 ADVANCED NARRATIVE SCREENWRITING (2-4) A continuation of ART 2350 focusing on writing an original (no adaptations), narrative, full-length screenplay through all stages to final draft status primarily focusing on the development of a polished first act. Students study screenplays, view films, conduct actor readings, and complete various other assignments. May be repeated up to two times for credit. Prerequisite: ART 3350 and permission of the instructor.

ART 4355 APPLICATIONS (2-4) Creative exploration and application of complex visual communication skills to the development of a visual identity system. May be repeated for up to six hours credit. Prerequisite: ART 3354, or permission of the advisor.

ART 4356 PROFESSIONAL PREPARATION (2-4) Exploration and development of the visual communication portfolio. Course work includes advanced level conceptual assignments. Emphasis on complex professional skills. May be repeated for up to six hours credit. Prerequisite: ART 3354, or permission of the advisor.

ART 4357 ADVERTISING DESIGN (2-4) Typography, layout, visualization, and conceptual problem solving as applied to advertising. May be repeated for up to six hours credit. Prerequisite: ART 3354, or permission of the advisor.

ART 4359 ADVANCED PHOTOGRAPHY (2-4) This course encourages students to use a variety of photographic processes (black & white, color, non-silver, computer imaging, etc.) with an emphasis on the development of a personal stance. Students will work on individual projects and present work in an environment of critical discussion. May be repeated for up to 12 hours credit. Lab fee:

$60. Prerequisite: three hours to be selected from ART 4344, 4360, 4363, or permission of the instructor.

ART 4360 COLOR PHOTOGRAPHY (2-4) The development of an aesthetic and critical response toward photographic color. Techniques include exposure and printing of color negatives as well as the use of digital technology. May be repeated for up to six hours credit. Lab fee: $60. Prerequisite: ART 3360 or permission of the instructor.

ART 4361 3-D ANIMATION (2-4) Intensive study of digital computer animation and 3-D digital animation tools and techniques. Students will produce a number of short, original works under the supervision of the instructor. May be repeated for credit. Prerequisite: ART 2304 and 2358.

ART 4362 ADVANCED FILM/VIDEO (2-4) Advanced production techniques in an all-digital environment including AVID and Final Cut post-production with special emphasis in technical aesthetics, history and presentation. Students may elect to work in a variety of media (including 16mm, S16mm, digital animation, installation, etc.) and in a variety of genres (narrative, documentary, commercial, animation) to produce original works under the supervision of the instructor. May be repeated for credit. Prerequisite: ART 2350 or 3350 and permission of the instructor.

ART 4363 STUDIO PHOTOGRAPHY (2-4) The theory and practice of situational photography. Studio lighting, large format and digital camera techniques. May be repeated for up to six hours credit. Lab fee: $60. Prerequisite: ART 3360 or permission from the instructor.

ART 4365 MULTIMEDIA COURSE DEVELOPMENT (3-0) Multimedia Planning and Curriculum Development places emphasis on the use of digital media presentation strategies to enhance teacher effectiveness as well as how to incorporate the use of digital media by the students. Curriculum development will be built around units of study which include scope and sequence as well as aesthetics, culture, and art history. Permission of instructor or academic advisor required.

ART 4366 ONLINE DESIGN (2-4) Concentrated study in the use of typography, layout, and visual problem solving as applied to visual communication for online and/or wireless distribution. May be repeated for up to six hours credit. Prerequisite: ART 3354, or permission of the advisor.

ART 4367 TWO DIMENSIONAL ANIMATION (2-4) This course introduces techniques for two-dimensional animation presented in an historical and aesthetic context. Students will produce short animated films utilizing basic animation principles and developing the conceptual skills necessary for creating motion designs. May be repeated for credit. Prerequisite: ART 2358.

ART 4368 ADVANCED SILVER PHOTOGRAPHY (2-4) This advanced level course explores the use of medium and large format film cameras, film development, gelatin silver printing techniques, and archival presentation. May be repeated for up to 6 hours credit. Prerequisite: ART 3360.

ART 4369 CONCEPT TO EXHIBITION (2-4) This course takes the student from the concept for a body of work to installation of the work in a group exhibition. Students choose from a wide range of photographic techniques and demonstrations of selected processes. May be repeated for up to six hours credit. Lab fee: $60. Prerequisite: ART 2359 and 3360 or permission of the instructor.

ART 4370 STAGED ENVIRONMENTS (2-4) This course concentrates on the conceptualization, development and execution of tableaus designed exclusively for the camera. Lectures, readings and presentations will cover view cameras, studio lighting, set design, scouting locations, using props, and working with models. Lab fee: $60. Prerequisite: ART 3360 or permission of the instructor.

ART 4371 ADVANCED PAINTING (2-4) Students will be encouraged to develop a personal direction which complements their development as visual thinkers. The student will be required to plan a course outline of conceptual development with the instructor at the beginning of each semester. May be repeated for credit. Student must earn a grade of "B" or above in the course to repeat it. Prerequisite: ART 2308, ART 2371 and a grade of B or above in ART 3371 or permission of the instructor. Transfer students will be required to schedule a portfolio review with the painting instructor to gain permission to enroll in the class.

ART 4372 BODY AS RESOURCE (2-4) An advanced level course that investigates making imagery using portrait, self portrait, or the figure as subject. The course incorporates contemporary practices in digital imaging, digital studio, and Photoshop. This course requires expertise in digital imaging and studio photography. May be repeated for up to 9 hours of credit. Prerequisites: ART 3352 and ART 4363 or permission of instructor.

ART 4373 ADVANCED THREE-DIMENSIONAL STUDIES (2-4) Class is designed for students to continue the development of advanced three-dimensional work and engage in a cross section of various media. May be repeated for credit. Prerequisite: 12 hours to be selected from ART 3341, 3342, 3363, 4341, 4342, 4343, 4353, or permission of the instructor. Formerly ART 4366. Credit will be granted for both.

ART 4375 DESIGN TEXAS (5-0) Visual Communication outreach and problem solving. Individual and group projects for clients selected by the instructor. Provides advanced undergraduate students an opportunity to interact with clients on the development and completion of complex communication design problems. May be taken up to three times for credit. Prerequisite: permission of instructor.

ART 4383 INDEPENDENT FILM PRODUCTION (2-2) Students will produce a major film or video in the genre of their choosing (narrative, documentary, commercial, or animation). Students may elect to work in a variety of media (including 16 mm film, digital video or installation) to produce original works. Students will be individually mentored as their productions move through preparation, shooting and post-production.

Prerequisite: ART 4362.

ART 4390 CONFERENCE COURSE: ART HISTORY (3-0) Independent study or research in an area of art history agreed upon in advance with the instructor. Written permission and the determination of obligations and objectives are required before registration. May be repeated for credit. Prerequisite: ART 1309 and ART 1310.

ART 4391 INDEPENDENT STUDY (0-0) Mature, capable students may be permitted to pursue individual art problems. Problems must be stated in writing, a definite conference schedule arranged, and the paperwork must be approved by both the supervising faculty member and the department chair prior to registration. May be repeated for credit for varied subject matter. Prerequisite: B average in art concentration.

ART 4392 SPECIAL STUDIES (2-4) Special course work in new or experimental offerings for which there is immediate need and for which special resources are available. May be repeated for credit. Primarily for art majors.

ART 4394 HONORS THESIS/SENIOR PROJECT (0-0) Required of all students in the University Honors College. During the senior year, the student must complete a thesis or a project under the direction of a faculty member in the major department.

ART 4395 ART INTERNSHIP (0-0) An opportunity to apply academic training as participant/observer in a professional organization relevant to a major area of concentration. With permission of advisor, internships may be repeated for up to a maximum of nine hours credit. Internships must be arranged with the internship supervisor in the semester prior to enrolling for this course. Prerequisite: permission of the instructor.

ART 4396 SPECIAL STUDIES IN ART HISTORY (3-0) Subjects of immediate interest in various fields of art history; to complement temporary museum exhibitions and/or faculty research specializations. May be repeated for credit as course content changes. Prerequisite: ART 1309 and 1310 and permission of the instructor. Prerequisite: ART 1309 and ART 1310.

ART 4397 SPECIAL STUDIES IN FILM/VIDEO (2-4) Special studies in film/video that respond to emerging technologies, immediate needs, and specialized topics. May be repeated for credit. Prerequisite: permission of the instructor.

ART 4695 ART INTERNSHIP (0-0) An opportunity to apply academic training as participant/observer in a professional organization relevant to a major area of concentration. With permission of advisor, internships may be repeated for up to a maximum of nine hours credit. Internships must be arranged with the internship supervisor in the semester prior to enrolling for this course. Prerequisite: permission of the instructor.

AS 1121 Foundation of the United States Air Force (1-0) (AS 1121 in the fall and 1122 in the spring) AS100 is a survey course designed to introduce students to the U.S. Air Force and Air Force ROTC. Featured

topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities, and an introduction into communication skills. Leadership Laboratory (AS 1001) complements this course by providing cadets with followership experiences.

AS 1122 Foundation of the United States Air Force (1-0) (AS 1121 in the fall and 1122 in the spring) AS100 is a survey course designed to introduce students to the U.S. Air Force and Air Force ROTC. Featured topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities, and an introduction into communication skills. Leadership Laboratory (AS 1001) complements this course by providing cadets with followership experiences.

AS 1181 Leadership Laboratory (0-1) (LLAB) (Every semester). The AS100 and AS200 LLabs include a study of Air Force customs and courtesies, drill and ceremonies, and military commands. The LLAB also includes studying the environment of an Air Force officer and learning about areas of opportunity available to commissioned officers. The AS300 and AS400 LLAB consist of activities classified as leadership and management experiences. They involve the planning and controlling of military activities of the cadet corps; and the preparation and presentation of briefings and other oral and written communications. LLAB also include interviews, guidance, and information that will increase the understanding, motivation, and performance of other cadets.

AS 2121 The Evolution of USAF Air and Space Power (1-0) (AS 2121 in the fall and 2122 in the spring) AS200 is a survey course designed to examine general aspects of air and space power through a historical perspective. Utilizing this perspective, the course covers a time period from the first balloons and dirigibles to the space-age global positioning systems of the Persian Gulf War. Historical examples are provided to extrapolate the development of Air Force capabilities (competencies), and missions (functions) to demonstrate the evolution of what has become today's USAF air and space power. Furthermore, the course examines several fundamental truths associated with war in the third dimension: e.g. Principles of War and Tenets of Air and Space Power. As a whole, this course provides the student with a knowledge level understanding for the general element and employment of air and space power, from an institutional, doctrinal, and historical perspective. In addition, the students will continue to discuss the importance of the Air Force Core Values with the use of operational examples and historical Air Force leaders and will continue to develop their communication skills. In addition, Leadership Laboratory (AS 1001) is mandatory for Air Force ROTC cadets (not special students), and it complements this course by providing cadets with followership experiences. Professional Officer Courses (POC)

AS 2122 The Evolution of USAF Air and Space Power (1-0) (AS 2121 in the fall and 2122 in the spring) AS200 is a survey course designed to examine general aspects of air and space power through a historical

perspective. Utilizing this perspective, the course covers a time period from the first balloons and dirigibles to the space-age global positioning systems of the Persian Gulf War. Historical examples are provided to extrapolate the development of Air Force capabilities (competencies), and missions (functions) to demonstrate the evolution of what has become today's USAF air and space power. Furthermore, the course examines several fundamental truths associated with war in the third dimension: e.g. Principles of War and Tenets of Air and Space Power. As a whole, this course provides the student with a knowledge level understanding for the general element and employment of air and space power, from an institutional, doctrinal, and historical perspective. In addition, the students will continue to discuss the importance of the Air Force Core Values with the use of operational examples and historical Air Force leaders and will continue to develop their communication skills. In addition, Leadership Laboratory (AS 1001) is mandatory for Air Force ROTC cadets (not special students), and it complements this course by providing cadets with followership experiences. Professional Officer Courses (POC)

AS 3301 Leadership Studies (3-0) (AS 3301 in the fall and 3311 in the spring). AS300 is a study of leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, and communication skills required for an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. A mandatory Leadership Laboratory (AS 1001) complements this course by providing advanced leadership experiences in officer-type activities, giving students the opportunity to apply leadership and management principles of this course.

AS 3311 Leadership Studies (3-0) (AS 3301 in the fall and 3311 in the spring). AS300 is a study of leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, and communication skills required for an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. A mandatory Leadership Laboratory (AS 1001) complements this course by providing advanced leadership experiences in officer-type activities, giving students the opportunity to apply leadership and management principles of this course.

AS 4301 National Security Affairs/Preparation for Active Duty (3-0) (AS 4301 in the fall and 4311 in the spring). AS 400 examines the national security process, regional studies, advanced leadership ethics, and Air Force doctrine. Special topics of interest focus on the military as a profession, officership, military justice, civilian control of the military, preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis is given to refining communication skills. An additional Leadership Laboratory (AS 1001) complements this course by providing

advanced leadership experiences, giving students the opportunity to apply the leadership and management principles of this course.

AS 4311 National Security Affairs/Preparation for Active Duty (3-0) (AS 4301 in the fall and 4311 in the spring). AS 400 examines the national security process, regional studies, advanced leadership ethics, and Air Force doctrine. Special topics of interest focus on the military as a profession, officership, military justice, civilian control of the military, preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis is given to refining communication skills. An additional Leadership Laboratory (AS 1001) complements this course by providing advanced leadership experiences, giving students the opportunity to apply the leadership and management principles of this course.

ASA 1191 AFFILIATED STUDY ABROAD (0-0)

ASA 1291 AFFILIATED STUDY ABROAD (0-0)

ASA 1391 AFFILIATED STUDIES ABROAD (0-0)

ASA 1491 AFFILIATED STUDIES ABROAD (0-0)

ASA 1591 AFFILIATED STUDIES ABROAD (0-0)

ASA 2191 AFFILIATED STUDY ABROAD (0-0)

ASA 2291 AFFILIATED STUDY ABROAD (0-0)

ASA 2391 AFFILIATED STUDIES ABROAD (0-0)

ASA 2491 AFFILIATED STUDIES ABROAD (0-0)

ASA 2591 AFFILIATED STUDIES ABROAD (0-0)

ASA 3191 AFFILIATED STUDY ABROAD (0-0)

ASA 3291 AFFILIATED STUDIES ABROAD (0-0)

ASA 3391 AFFILIATED STUDIES ABROAD (0-0)

ASA 3491 AFFILIATED STUDIES ABROAD (0-0)

ASA 3591 AFFILIATED STUDIES ABROAD (0-0)

ASA 4191 AFFILIATED STUDY ABROAD (0-0)

ASA 4291 AFFILIATED STUDIES ABROAD (0-0)

ASA 4391 AFFILIATED STUDIES ABROAD (0-0)

ASA 4491 AFFILIATED STUDIES ABROAD (0-0)

ASA 4591 AFFILIATED STUDIES ABROAD

(0-0)

ASA 4691 AFFILIATED STUDY ABROAD (0-0)

ASTR 1445 INTRODUCTORY ASTRONOMY I (3-2) 1445 and 1446 constitute a one-year sequence for any student who is interested in learning his/her place within the astronomical universe. These two courses satisfy eight hours of the 11-hour science requirement in the core curriculum and are designed for students in the Colleges of Liberal Arts or Business Administration. The first semester consists of an essentially descriptive treatment of the apparent motions and properties of members of the Solar System including the Sun, the planets and their moons, comets and rockets, and satellites as well as the mechanics and evolution of the Solar System. The laboratory work includes the use of astronomical telescopes for observation.

ASTR 1446 INTRODUCTORY ASTRONOMY II (3-2) Follows 1445 and focuses on the science of stars and galaxies. Properties of light are applied to the understanding and classification of stars and to determining their distances. Topics include nuclear reactions, binary stars, variable stars, exploding stars, black holes, and star clusters. The course concludes with the structure of the Milky Way and the role galaxies play in modern cosmological theories. The laboratory work includes telescopic observations.

BCMN 1355 BROADCAST DICTION (3-0) Application of the phonetic alphabet to improve vocal processes, articulation, and pronunciation. Practice in the reading of broadcast copy. Credit will be given for only one of BCMN 1355, THEA 1302, or SPCH 1302.

BCMN 2347 BROADCAST WRITING AND REPORTING (2-2) Writing non-dramatic scripts for radio and television. Emphasis is on writing for time and under deadline pressure as well as writing in active voice. Credit will not be granted for BCMN 2347 and BCMN 3347.

BCMN 2357 RADIO PRODUCTION I (2-2) The fundamentals of radio broadcasting. The techniques of announcing, interviewing, script writing, programming, types of radio production, audience analysis, and vocational opportunities. Students participate in typical broadcasting activities.

BCMN 2358 TELEVISION PRODUCTION I (2-2) Fundamentals of television broadcasting, including programming concepts, writing, lighting, and switching practices.

BCMN 2360 INTRODUCTION TO BROADCASTING (3-0) A survey of historical and contemporary operations and functions of broadcasting. How broadcasting and the electronic media operate, including understanding of stations, distribution methods and facilities, regulation and the FCC, networks, advertising agencies, audience ratings, and new technologies.

BCMN 3319 BROADCAST MANAGEMENT (3-0) Management procedures, policies, and responsibilities in the successful operation of telecommunication industries. Areas covered are planning, problem-solving,

personnel, facilities, government, financial resources, and public service. Prerequisite: BCMN 3340.

BCMN 3340 ELECTRONIC NEWS (2-2) News writing and gathering for the electronic media; use of basic audio and video electronic equipment; editing of news stories for analysis and criticism. Prerequisite: JOUR 1345 (or concurrent enrollment), and a minimum grade of C (2.0/4.0 scale) or higher in BCMN 2347, 2357, 2358, 2360.

BCMN 3341 PUBLIC AFFAIRS & NEWS PROGRAMMING (3-0) Planning of public affairs and news programs; story ideas, news judgments, reporting, shooting, editing, and presentation. Prerequisite: BCMN 3340.

BCMN 3350 TELEVISION REPORTING I (2-2) Producing and reporting of news information for the television media. Students will participate in news gathering, writing, and shoot packages for television. Prerequisite: BCMN 3340.

BCMN 3355 BROADCAST ANNOUNCING (2-2) Concentrated study of phrasing, timing, voice modulation, pronunciation and articulation. Analysis and interpretation of all types of broadcast copy. Integration of announcing and performance into broadcast production. Prerequisite: JOUR 1345, and a minimum grade of C (2.0/4.0 scale) or higher in BCMN 2347, 2357, 2358, 2360.

BCMN 3357 RADIO PRODUCTION II (2-2) Development of production and announcing skills basic to professional broadcasting. Students perform a variety of broadcasting assignments. Prerequisite: JOUR 1345, and a grade of C (2.0/4.0 scale) or higher in BCMN 2347, 2357, 2358, 2360.

BCMN 3358 TV PRODUCTION II (2-2) Fundamentals of television broadcasting, including programming concepts, writing, lighting, and switching practices. Prerequisite: BCMN 3340.

BCMN 4191 MEDIA WORKSHOP (0-2) Contemporary activities in broadcasting. Topics will vary. May be repeated up to three times. Prerequisite: BCMN 3340 and permission.

BCMN 4320 CURRENT ISSUES IN TELECOMMUNICATIONS (3-0) Recent and current literature in radio and television broadcasting, cablecasting, industrial video, satellite distribution, and national and international telecommunications policies. Current problems and possible solutions. Prerequisite: BCMN 3319, 3340.

BCMN 4350 TELEVISION REPORTING II (2-2) Production and evaluation of news programs for transmission on electronic media. Students will participate in production of newscasts for airing via broadcast and cable systems. Prerequisite: BCMN 3350.

BCMN 4360 DOCUMENTARY VIDEO PRODUCTION (2-2) Advanced television techniques including single-camera production skills, writing, lighting, and digital editing. Prerequisites: BCMN 3340.

BCMN 4391 CONFERENCE COURSE (3-0) Topic assigned on an individual basis, covering individual research or study in the

designated areas. May be repeated when topic changes, for a maximum of six credit hours. Prerequisite: BCMN 3340, COMM 2315, and 60 or more hours earned and permission.

BCMN 4393 SPECIAL TOPICS (3-0) Special studies in broadcasting. Topic varies from semester to semester. May be repeated when topics change, for a maximum of six credit hours. Prerequisite: BCMN 3340, COMM 2315, and 60 or more hours earned, and permission of department.

BCMN 4395 PROFESSIONAL INTERNSHIP (10-0) Individual research while working with business and industry. Individual conference to be arranged. Prerequisite: appropriate junior level course completed in student's option and permission of supervising professor and department. Prerequisite: BCMN 3340, COMM 2315, and 60 or more hours earned and permission of department. Graded Pass/Fail.

BCOM 3360 EFFECTIVE BUSINESS COMMUNICATION (3-0) Principles and practice of effective communication with business organizations. Students will be exposed to theories of persuasion, argumentation and advocacy. Techniques to achieve group compromise and conflict resolution are also emphasized.

BDEC 3311 BUSINESS DECISION MAKING - PLANNING, ETHICS, SUSTAINABILITY, & AGILITY (3-0) Students are exposed to broad and integrative business knowledge as they learn to lead and manage teams while creating a business plan. The business decisions they make focus on value added offerings and are crafted in a culture of ethical, sustainable, and agile business activity. Ethics are discussed as a critical staple of decision making during times of fundamental and less predictable change. Sustainability is discussed as a touchstone for innovative decision making. Agility is discussed as a decision making trait needed in times of evolving marketplace needs. Written business plans are evaluated by business professionals. Student teams also compete for various awards by presenting their business plans to those business professionals in a business exhibition format called the Sustainable Business Challenge.Prerequisite: Junior standing, 60 completed hours.

BE 1225 INTRODUCTION TO BIOENGINEERING (2-0) Topics include introduction to basic engineering principles and quantitative methods, their applications in analyzing and solving problems in biology and medicine. Also includes new trends in the development of bioengineering and biotechnology. Course includes visits to the area hospitals and bioengineering industry.

BE 4325 FUNDAMENTALS OF BIOENGINEERING (3-0) Topics cover fundamentals of biosensors, bio-signal processing, and bioinstrumentation. An introduction to various imaging modalities such as ultrasound, magnetic resonance, optical tomography, and x-ray radiography is also presented. Other bioengineering topics may be included as time allows or as is appropriate. Prerequisite: 90 or more hours (senior) standing in an engineering or science discipline or instructor's consent.

BE 4365 TISSUE ENGINEERING LAB (0-3)

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. Prerequisite: BIOL 3301, CSE 1310, CHEM 1442, CHEM 2322, MATH 3319 or consent of the instructor.

BE 4391 DIRECTED RESEARCH IN BIOENGINEERING (0-3) Student participates in a research project under the individual instruction of a faculty supervisor.

BEEP 3381 LANGUAGE MINORITY STUDENTS: DEVELOPMENT AND ASSESSMENT (3-0) This course addresses issues of child development with emphasis on the psychological, cultural and social background of language minority children. Assessment of language minority children will also be addressed including factors such as cultural bias in assessment, procedures for assessing eligibility for special language programs, and general literacy assessment with language minority students.

BEEP 3382 INTRODUCTION TO SPECIAL LANGUAGE PROGRAMS (3-0) Legal foundations and historical development of bilingual education, dual language, and special language programs will be introduced. Various models of bilingual education and English as a Second Language will be examined. An overview of special education, gifted and talented, and compensatory education legislation and its impact on the implementation of special language programs will be examined.

BEEP 4302 IMPLEMENTATION OF EC-6 DUAL LANGUAGE CURRICULUM MODELS (3-0) This course addresses programmatic, cultural, academic and linguistic considerations for the creation, implementation and maintenance of dual language curriculum models in EC-6 settings. In the course students will explore and implement various research-based teaching methods and strategies used in effective programs. It will also cover key components of dual language teaching and learning, including curriculum alignment (e.g., horizontal, vertical, spiral), language separation, and parent collaboration.

BEEP 4305 BILITERACY DEVELOPMENT IN DUAL LANGUAGE PROGRAMS (3-0) Analysis of the structure of English and Spanish including phonology, morphology, syntax, semantics, lexicon, and pragmatics. Topics also include language interference and cross-linguistic transfer to promote biliteracy.

BEEP 4306 FAMILY LITERACY AND SECOND LANGUAGE ACQUISITION (3-0) Examines the relationships among family literacy, second-language acquisition, and literacy development in children. The course provides opportunities for students to explore a variety of home-school literacy programs designed to facilitate the development of literacy skills in parents and support reading and writing at home. Specific focus on theories regarding the relationship between first and second language acquisition and early education. Prerequisite: ECED 4317, ECED 4318.

BEEP 4311 MATH IN DUAL LANGUAGE

SETTINGS (2-2) Integration of mathematic concepts in relation to the cognitive and linguistic development of English language learners. Analysis of the State curriculum for mathematics in K-6. Design and implementation of instruction in dual language settings. Field experience required. Prerequisite: BEEP 3381.

BEEP 4312 SCIENCE AND HEALTH EDUCATION IN DUAL LANGUAGE SETTINGS (2-2) Integration of science and health concepts in relation to the cognitive and linguistic development of English language learners. Analysis of the State curriculum for health and science in K-6. Design and implementation of instruction in dual language settings. Field experience required.

BEEP 4314 CREATIVE ARTS AND SOCIAL STUDIES IN DUAL LANGUAGE SETTINGS (3-0) Integration of visual arts, music, and social studies with a focus on instructional processes and skills for increasing childrenÿs understanding and appreciation of aesthetics. Implementation of the Texas Curriculum in Social Studies and Art Education in EC-6 dual-language classrooms.

BEEP 4319 ASSESSMENT OF CULTURALLY AND LINGUISTICALLY DIVERSE STUDENTS IN EC-6 SETTINGS (3-0) Study of formal and informal assessment instruments and techniques for assessing the language development and literacy of English Language Learners (ELL) in EC-6 classrooms. Also, focus on diagnosing literacy learning strengths and needs.

BEEP 4366 SPANISH FOR TEACHERS IN DUAL LANGUAGE PROGRAMS: AN IMMERSION APPROACH (0-0) Development of Spanish proficiency for bilingual education teacher candidates through an immersion approach. Emphasis on concepts, functions and the scenarios used in the Spanish proficiency examination required for bilingual education teacher candidates.

BEEP 4382 LITERACY INSTRUCTION IN SPANISH FOR THE BILINGUAL CLASSROOM (3-0) Focuses on the development of literacy for bilingual children. Specific emphasis will be placed on the rationale, methods, and materials for literacy instruction in Spanish. The successful transition from first-language literacy instruction to literacy instruction in English will also be addressed. The course will be delivered in Spanish and students will be exposed to content and techniques to master the oral and written components of the Spanish language proficiency test required to become certified in bilingual education. Prerequisite: BEEP 3381, ECED 4317, ECED 4318.

BEEP 4384 LITERACY METHODS FOR ESL/BILINGUAL CLASSROOMS (2-2) The rationale and implementation of various instructional methods for English language learners will be discussed. Examination of language instruction for students at different stages of development. Sheltered English instruction for the teaching of content areas will also be presented. Students will be assigned to a special language program to examine methods of instruction and modifications for language minority children.

BEEP 4385 SHELTERED ENGLISH

INSTRUCTION (3-0) Analysis of the linguistic, cognitive, academic and cultural considerations required to provide meaningful and developmentally appropriate content area instruction to English language learners (ELLs) in PK-6. Prerequisite: BEEP 3381.

BEEP 4687 RESIDENCY IN EC-6 BILINGUAL CLASSROOMS4 (25-1) Full-time supervised and directed practicum in EC-6 bilingual classrooms. Residency must immediately follow the Internship semester. Residency assumes that students will follow the school district's calendar and report to the classroom all day and each day of the semester. Prerequisites: BEEP 4311, BEEP 4314.

BHNR 4330 RESEARCH METHODOLOGY AND PRACTICE (3-0) Designed for undergraduate students from a variety of disciplines. Goals: to understand the commonalities of research across disciplinary boundaries, to develop research skills. Topics: framing a research question, literature review, introductory statistical skills, organization and presentation of results. Using a computer for bibliographic searches, word processing, and statistical analysis.

BHNR 4394 HONORS THESIS/SENIOR PROJECT (3-0) Required of all undergraduate Business Administration students in the University Honors College. During the senior year, the student must complete a thesis or project of equivalent difficulty under the direction of a faculty member in the major department.

BIOL 1282 INTRODUCTION TO BIOLOGY LABORATORY (0-3) Laboratory exercises will illustrate basic concepts covered in BIOL 1333 and BIOL 1334. This course is for non-science majors, and, with 1333 and 1334, will satisfy the laboratory science requirements for students in the Colleges of Liberal Arts and Business Administration and in the School of Social Work. Prerequisite: BIOL 1333.

BIOL 1301 NUTRITION (3-0) Nutrients essential to an adequate diet and good health and the nutritive values of common foods are reviewed. Offered as BIOL 1301 and HEED 1301: credit will be granted for only one of these courses. Students seeking certification in Health Education must enroll in HEED 1301. Students seeking credit toward their science requirement must enroll in BIOL 1301. May not be used for biology grade point calculation or biology credit toward a BS degree in biology, microbiology, or medical technology.

BIOL 1333 INTRODUCTION TO BIOLOGY I (3-0) (BIOL 1408) Emphasis is on fundamental principles, concepts, and topical subjects relating to biology. This course is for non-science majors and with 1334 and 1282, will satisfy the laboratory science requirements for students in the Colleges of Liberal Arts and Business Administration, and in the School of Social Work.

BIOL 1334 INTRODUCTION TO BIOLOGY II (3-0) A continuation of BIOL 1333. Students are encouraged to apply pertinent biological concepts to biologically-based problems in today's society. This course is for non-science majors, and with 1333 and 1282 will satisfy the laboratory science

requirements for students in the Colleges of Liberal Arts and Business Administration and in the School of Social Work. Prerequisite: BIOL 1333.

BIOL 1441 CELL AND MOLECULAR BIOLOGY (3-2) (BIOL 1406) The first of a three-part introductory biology sequence, this course focuses on the chemical and molecular basis of life, including metabolism, cell structure and function, and genetics. Laboratory experiments are designed to complement theory presented in lecture. Formerly listed as BIOL 1449; credit will not be given for both.

BIOL 1442 STRUCTURE AND FUNCTION OF ORGANISMS (3-2) The study of structure and function in 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. The laboratory will examine plant and animal structure and function with observational and experimental approaches. Prerequisite: BIOL 1441.

BIOL 1450 COMPUTER LITERACY IN BIOLOGY (3-3) Basic computer skills and the utilization of biological resources on the Internet. Assignments are constructed to enable the student to acquire skills in the use of software programs on graphics, statistics, spread sheets, and word processing as they apply to the biological sciences. Prerequisite: BIOL 1441, 1442.

BIOL 2300 INTRODUCTION TO BIOSTATISTICS (3-0) Introduction to the collection, description, and analysis of data with statistical methods appropriate for biological sciences. Prerequisite: BIOL 1441 and BIOL 1442, or permission of the instructor.

BIOL 2317 BASIC CONCEPTS IN HUMAN SEXUALITY (3-0) The physiological, psychological, and sociological aspects of human sexuality. Offered as BIOL 2317, HEED 2317, PSYC 2317, and WOMS 2317. Credit will be granted for one of these courses only. Students seeking certification in Health Education must enroll in HEED 2317. Students seeking credit toward their science requirement must enroll in BIOL 2317. May not be used for biology grade point calculation or biology credit toward a BS degree in biology, microbiology, medical technology, psychology, or sociology.

BIOL 2343 EVOLUTION & ECOLOGY (3-0) Reviews 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. Prerequisite: BIOL 1441.

BIOL 2350 MATHEMATICAL MODELING IN ECOLOGY (3-0) An introductory course in modeling techniques in biology with emphasis on construction and interpretation of models in ecology and epidemiology. Students will work with mathematical models chosen from areas such as optimization, statistics, difference equations and differential equations. Offered as BIOL 2350 and MATH 2350: credit will be granted only once. Prerequisite: C or better in BIOL 1441 and MATH 1426.

BIOL 2457 HUMAN ANATOMY AND PHYSIOLOGY I (3-2) Functional morphology of humans, cellular function, principles of support and movement, and neural and endocrine control systems. Laboratory exercises involve both anatomical and experimental aspects of principles introduced in the lecture. This class is designed for students in sport activities (EXSA), medical technology and pre-nursing. Prerequisite: BIOL 1441 or equivalent, or approval of the department. May not be used for biology grade point calculation or biology credit toward a B.S. degree in biology or microbiology.

BIOL 2458 HUMAN ANATOMY AND PHYSIOLOGY II (3-2) Functional morphology of humans, maintenance of the human body, and continuity of life. Topics will include the cardiovascular, respiratory, digestive, urinary, immune, and reproductive systems. Laboratory exercises explore both anatomical and experimental aspects of principles introduced in the lecture. This class is designed for students in sport activities (EXSA), medical technology, and pre-nursing. Prerequisite: BIOL 2457 or equivalent. May not be used for biology grade point calculation or biology credit toward a B.S. degree in biology or microbiology.

BIOL 2460 NURSING MICROBIOLOGY (3-3) The intention of this course is to present basic information, relevant to nursing practice, with the principles of microbiology and the nature of microbial disease. This course will give the nursing student a fundamental background of knowledge that will be applicable to the care of infectious patients, to the control of microbial diseases, and an understanding of microorganisms. The laboratory will provide practice in aseptic techniques, the use of disinfectants and antimicrobial agents, and microscopic study of bacteria. This course cannot be applied for credit toward a degree in Biology. Prerequisite: BIOL 1441 or equivalent.

BIOL 3101 CURRENT TOPICS IN BIOLOGY (1-0) Seminar on significant topics and issues in modern biology. Students will present seminars on selected topics and participate in discussions of those topics. Topics will vary depending on instructor. This course will satisfy the oral communication competency required in Biology. May be repeated once for biology credit.

BIOL 3142 LABORATORY IN BEHAVIORAL NEUROSCIENCE (0-3) Research methodologies employed in the study of the biological bases of behavior. Must have completed or be concurrently enrolled in PSYC 3322 or BIOL 3322. Offered as BIOL 3142 and PSYC 3142; credit will be granted only once. BIOL prerequisite: BIOL 1441 & BIOL 1442. PSYC 3142 prerequisite: PSYC 2442 or PSYC 2444.

BIOL 3149 COOPERATIVE PROGRAM IN BIOLOGY (10-0) The purpose of this course is to allow students to earn college credit for relevant field work in the areas of biology and microbiology. Students must apply for the program and be cleared for registration during the semester prior to enrollment. These courses are offered on a pass/fail basis.

BIOL 3170 LIMNOLOGY LABORATORY (0-3) A laboratory and field-based course designed to acquaint the student with common laboratory practices in the study of inland waters. Prerequisite: BIOL 3318 or concurrent enrollment.

BIOL 3249 COOPERATIVE PROGRAM IN BIOLOGY (10-0) The purpose of this course is to allow students to earn college credit for relevant field work in the areas of biology and microbiology. Students must apply for the program and be cleared for registration during the semester prior to enrollment. These courses are offered on a pass/fail basis.

BIOL 3301 CELL PHYSIOLOGY (3-0) An introduction to the basic physical, chemical, and biological principles which govern function in eukaryotic cells, and the relationships between cells and their environments. Prerequisite: BIOL 1441. CHEM 2181 and 2321 are recommended.

BIOL 3302 TISSUE CULTURE LABORATORY (0-3) Focus on hands-on knowledge of animal and plant tissue culture for biomedical and biotechnology research. Basic protocols in cell biology and imaging will also be performed. Restricted to students in the 5 year Bioengineering program. Prerequisite: BIOL 1441.

BIOL 3303 DRUGS AND BEHAVIOR (3-0) A survey of the psychoactive agents, their therapeutic uses, and social abuses. Alcohol, nicotine, caffeine, narcotics, hallucinogens, stimulants, and tranquilizers. Offered as BIOL 3303, HEED 3303, and PSYC 3303; credit will be granted only once. May not be used for biology grade point calculation or biology credit toward a B.S. degree in biology, microbiology, or medical technology. Students seeking certification in health education must enroll in HEED 3303.

BIOL 3305 SCIENTIFIC AND TECHNICAL WRITING (3-0) Study and application of the written and verbal communication skills involved in gathering, analyzing, and distributing scientific and technical information efficiently and accurately for specific scientific audiences. Can be used to satisfy the Technical Writing portion of English, Technical Writing and Speech requirement. Prerequisite: BIOL 1441 and 1442, or permission of the instructor.

BIOL 3309 NON-MAJORS SELECTED TOPICS (3-0) Topics in biology 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. May not be used for biology grade point calculation or biology credit toward a B.A. or B.S. degree in biology or a B.S. degree in microbiology.

BIOL 3310 SELECTED TOPICS IN BIOLOGY (3-0) Topics in biology not treated in the regular curriculum. Topic, format, and prerequisites to be determined by the instructor. May be repeated for biology elective credit as different topics are offered. Prerequisite: BIOL 1441, 1442.

BIOL 3311 SELECTED TOPICS IN MICROBIOLOGY (3-0) Topics in microbiology not treated in the regular curriculum. Topic, format, and prerequisites to be determined by the instructor. May be repeated for microbiology elective credit as

different topics are offered. Prerequisite: BIOL 1441, 3444.

BIOL 3312 IMMUNOBIOLOGY (3-0) An introduction to the components, properties, and manifestations of the adaptive immune response that occurs in vertebrates. Prerequisite: BIOL 1441, 3444. CHEM 2181, 2321 are recommended.

BIOL 3315 GENETICS (3-0) Principles of molecular and classical genetics. The function and transmission of hereditary material in microorganisms, plants, and animals, including humans. Prerequisite: BIOL 1441.

BIOL 3316 ASTROBIOLOGY (3-0) This is an interdisciplinary course between astrophysics, biology, and geology. Topics include properties of life, origin and evolution of life on Earth, mass extinctions, extremophiles, search for life in the Solar System, space missions, stellar habitable zones, SETI, Fermi paradox, Drake equation. Prerequisites: PHYS 1441, 1442, 2315 and BIOL 3315, or permission by the instructor. Offered as BIOL 3316, GEOL 3316, and PHYS 3316; credit will be granted only once.

BIOL 3317 GENOMICS (3-0) This course presents an integrative approach to genome science, combining elements of genetics, state of the art technologies in genomic analysis. A basic knowledge of genetics and probability concepts is required. Use of the World Wide Web will be an essential part of the course. Prerequisite: BIOL 3315 or permission of instructor.

BIOL 3318 LIMNOLOGY (3-0) The living and nonliving components of inland waters. An introduction to the geological, physical, and chemical background, and to the major organisms and ecological processes. Prerequisite: BIOL 1441, 1442 or equivalent.

BIOL 3319 HUMAN GENETICS (3-0) 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. Prerequisites: BIOL 1441 and 3315.

BIOL 3320 GENETICS-EL PAS (3-0)

BIOL 3322 BRAIN AND BEHAVIOR (3-0) A comprehensive survey of physiological processes and structures underlying human and animal behavior. PSYC 3142 is an optional laboratory which, when taken concurrently with or after completion of PSYC 3322, satisfies a portion of the laboratory requirement. Formerly listed as PSYC 4322. Offered as BIOL 3322 and PSYC 3322; credit will be granted only once. BIOL 3322 prerequisite: BIOL 1441, 1442. Prerequisite for PSYC 3322: PSYC 1315.

BIOL 3325 PLANT ECOLOGY (3-0) Introduction to the field of plant ecology including physiological, population, community, and ecosystem ecology. Prerequisite: BIOL 1442, 2343.

BIOL 3326 ANIMAL BEHAVIOR (3-0) A survey of research and theory comparing behavior at various phyletic levels. Offered as BIOL 3326 and PSYC 3326. Credit will be

granted for only one of these courses. Prerequisite: BIOL 1441, 1442.

BIOL 3327 MICROBIAL DIVERSITY (3-0) This course is an introduction to the great diversity of microbial life. The topic material explores this diversity by considering the great age of bacteria, their evolution, biochemistry, habitat and form. The course of study focuses attention on organisms not commonly encountered in General Microbiology laboratories. Prerequisite: BIOL 3444 Microbiology

BIOL 3328 ENVIRONMENTAL MICROBIOLOGY (3-0) An introduction to the principles, methodology, and practical applications and implications of environmental microbiology. Lecture topics include habitat and community approaches to environmental microbiology, measures of microbial populations and activities, interactions among microbial communities, the role of microorganisms in the origin of mineral resources, microorganisms and pollution, and current developments on energy flow through microbial communities. Prerequisite: BIOL 1441, 3444.

BIOL 3329 BEHAVIORAL ENDOCRINOLOGY (3-0) The effects of hormones on behavior and the physiological mechanisms which mediate these effects. Principles of brain-hormone interaction, sexual and aggressive behavior, parental care, ingestion, activity, motivation, learning and memory, behavioral disorders, environmental, and experiential influences on hormone production. Also offered as PSYC 3329; credit will be granted for only one of these courses. Students seeking credit toward the science requirement must enroll in BIOL 3329. Prerequisite: PSYC 1315, or BIOL 4315.

BIOL 3330 DEVELOPMENTAL BIOLOGY (3-0) 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. Prerequisite: BIOL 3315.

BIOL 3339 INTRODUCTION TO EVOLUTION (3-0) Processes and mechanisms which cause evolutionary changes in organisms. Prerequisite: BIOL 1441, 1442, 2343, 3315.

BIOL 3341 ENTOMOLOGY (2-3) This course is a study of the basic principles of insect life including structure, physiology, life cycles, and classification. Certain related arthropods are included. Lab work emphasizes collection and identification of local insects. Prerequisite: BIOL 1441, 1442.

BIOL 3345 HUMAN PHYSIOLOGY (3-0) Study of human function from the cellular through organismal levels. Attention will be paid to the interrelationships between physiological research and medicine. Will give students a knowledge of the basic principles of structure, function and functional integration of human tissues and organs. Prerequisite: BIOL 1441 and 1442.

BIOL 3346 HUMAN ANATOMY (2-3) Study of the gross functional anatomy of the human

body. Students will participate in laboratory exercises designed to familiarize them with human anatomical structures and their functions. Use of eponyms for anatomical terms will be minimized. Prerequisite: BIOL 1441, 1442, or permission of instructor.

BIOL 3349 COOPERATIVE PROGRAM IN BIOLOGY (10-0) The purpose of this course is to allow students to earn college credit for relevant field work in the areas of biology and microbiology. Students must apply for the program and be cleared for registration during the semester prior to enrollment. These courses are offered on a pass/fail basis.

BIOL 3350 DYNAMICAL SYSTEMS IN BIOLOGY (3-0) An introductory course in the existence and properties of solutions of differential and difference equations, qualitative analysis methods, and numerical solutions of differential equations using finite-difference methods. Offered as BIOL 3350 and MATH 3350: credit will be granted only once. Prerequisite: C or better in BIOL/MATH 2350 or consent of the instructor.

BIOL 3351 PROBABILITY AND RANDOM PROCESSES IN BIOLOGY (3-0) Introduction to random processes arising in biological modeling. Topics include introduction to probability, Poisson processes, birth-death processes, Markov chains, and Markov processes. Course taught as BIOL 3351 and MATH 3351; credit will be granted only once. Prerequisite: C or better in BIOL 3350 or MATH 3350 or consent of the instructor.

BIOL 3352 INTRODUCTION TO FORENSIC LAB SCIENCE (2-3) An introduction to the various disciplines of Forensic Science including DNA analysis, drug analysis, and firearms basics. Laboratory consists of hands-on investigation of mock crime scenes, fingerprint enhancement methods, and biological analysis of fluids. Prerequisite: BIOL 1441, 1442, CHEM 1441.

BIOL 3353 PATHOGENIC BACTERIOLOGY (2-3) The major groups of disease-causing bacteria, including group characteristics, host ranges, pathogenic mechanisms, and public health significance. This course is reserved for Microbiology and Medical Technology majors. Prerequisite: BIOL 1441, BIOL 3444, CHEM 2181, CHEM 2321, and permission of instructor.

BIOL 3355 TOXICOLOGY (3-0) 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 fates. Pollution of various media (air, water and soil) and the differences between them will be discussed. Prerequisite: BIOL 1441, CHEM 1441, 1442, 2321, 2181.

BIOL 3356 ENVIRONMENTAL SYSTEMS, BIOLOGICAL ASPECTS (3-0) Biological components of environmental systems. Population dynamics, species interactions, community structure, biodiversity, bioenergetics, nutrient cycling and human impacts are reviewed. Prerequisite: BIOL 1441, 1442, 2343.

BIOL 3357 MARINE BIOLOGY (3-0) Principles of oceanographic and ocean circulation, adaptations of marine organisms to their environment, ecological principles of marine biology and human

impacts on the sea. Prerequites: BIOL 1441, 1442.

BIOL 3420 GENETICS METHODS LAB (0-4) Computational and experimental approach to genomics research. The course theme will be transposable elements. Prerequisite: BIOL 3315.

BIOL 3427 PLANT SCIENCE (3-3) A survey of plant science including the importance of plants to people and the human side of botany: the structure, reproduction, physiology, and classification of plants. The laboratory includes the study of structure, function, reproduction, and classification of plants. Replaces BIOL 3327 and BIOL 3183. Credit cannot be given for BIOL 3427 and BIOL 3327 and 3183. Prerequisite: BIOL 1441, 1442 or equivalent.

BIOL 3442 PRINCIPLES OF ANIMAL PHYSIOLOGY (3-3) A comparative study of animal function. Evidence from different groups of animals, particularly the vertebrates, to identify the general principles of physiological mechanisms operating at the cellular, tissue, organ, and organismal levels. Laboratory studies will complement lecture material and will stress experimental design, data analysis, and the understanding of critical research in physiology. Prerequisite: BIOL 1441, 1442. BIOL 3301 recommended.

BIOL 3444 GENERAL MICROBIOLOGY (3-3) Fundamental principals of microbiology including the structure and function of microbial cells and their activities in nature. Bacteria will be used in the laboratory to provide training and experimental methodology. Formerly listed as BIOL 2451; credit will not be granted for both. Prerequisite: BIOL 1441 and one year of Chemistry.

BIOL 3445 METHODS IN MOLECULAR MICROBIOLOGY (1-3) An overview of different techniques used during manipulation of microorganisms. It will allow students to gain an historical perspective of techniques used in microbiology as well as learn state of the art molecular characterization of microorganisms and their genetic manipulation. Introduces biochemical, physiological, and molecular biology methods to assess community diversity and microbial activity in a variety of ecosystems. Bacterial growth and survival, population biology, and microbial interactions will also be discussed. Prerequisite: BIOL 1441 and 3444.

BIOL 3452 COMPARATIVE VERTEBRATE ANATOMY (3-4) A comparative study of the anatomy of the protochordates and the vertebrates. The laboratory includes a detailed study of the shark and the cat. Prerequisite: BIOL 1441, 1442, and 2343.

BIOL 3454 GENERAL ZOOLOGY (3-3) An overview of animal life including the diversity and evolution of major animal phyla, reproduction, development and aspects of physiological function. The laboratory examines form, function and phyletic relationships in a wide variety of animal types. Prerequisite: BIOL 1441, 1442, or equivalent, or permission of instructor.

BIOL 3457 GENERAL ECOLOGY (3-3) An examination of the theoretical and

experimental aspects of the relationship between the biological and physical environments (organisms, food, space, and time) at the individual, population, community, and ecosystem levels. Prerequisite: BIOL 1441, 1442, 2343.

BIOL 4150 SEMINAR IN MATHEMATICAL BIOLOGY (1-0) Formulation and definition of interdisciplinary research problems in Mathematical Biology, the formulation and execution of strategies of solution, and the presentation of results. Research under faculty supervision and mentorship involving collaboration within a small group. Prerequisite: Consent of instructor.

BIOL 4179 DIRECTED STUDY (1-0) Independent study by individual students in biology under the supervision of a biology faculty member. Topics must be approved by the supervising faculty member. Prerequisite: BIOL 1441, 1442, and permission of instructor.

BIOL 4189 RESEARCH IN BIOLOGY (0-0) Research problems on an individual basis, conducted under the direction of a member of the biology faculty. A limit of two hours per semester is imposed and only a total of three hours may be counted toward degree requirements. These courses are offered only on a pass/fail basis. Prerequisite:written permission of the supervising instructor prior to registration.

BIOL 4279 DIRECTED STUDY (2-0) Independent study by individual students in biology under the supervision of a biology faculty member. Topics must be approved by the supervising faculty member. Prerequisite: BIOL 1441, 1442, and permission of instructor.

BIOL 4289 RESEARCH IN BIOLOGY (0-0) Research problems on an individual basis, conducted under the direction of a member of the biology faculty. A limit of two hours per semester is imposed and only a total of three hours may be counted toward degree requirements. These courses are offered only on a pass/fail basis. Prerequisite:written permission of the supervising instructor prior to registration.

BIOL 4301 INTRODUCTION TO NEUROSCIENCE (3-0) An in depth understanding of the mechanisms underlying the function of the nervous system. Topics include cellular mechanisms of neural communication, neuroanatomy and neurophysiology of sensory, motor, and autonomic systems, cellular mechanisms of learning and memory, and neuropathological conditions that contribute to neurological disorders. Course offered as BIOL 4301 and PSYC 4301. Credit will be granted only once. Prerequisite: PSYC 3322 (BIOL 3322) or permission of instructor.

BIOL 4302 MICROBIAL GENETICS (3-0) Consideration of the physical, chemical, and functional nature of genetic processes in micro-organisms. Prerequisite: BIOL 1441, 3444, or permission of instructor.

BIOL 4307 MOLECULAR EVOLUTION (3-0) This course focuses on understanding how genes and genomes evolve at the molecular level. Molecular biology provides the data while population genetics provides the theoretical framework. Prerequisite: BIOL 3315, BIOL 3339.

BIOL 4308 GENOME STRUCTURE AND DYNAMICS (3-0) 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.

BIOL 4309 NEUROPHARMACOLOGY (3-0) A survey of how drugs affect the nervous system. General topics will include cellular and molecular foundations of neuropharmacology, receptors and modulation of neural signaling. The specific role of neurotransmitter systems (i.e. acetylcholine, dopamine, norepinephrine, serotonin, and opiate) will be explored. Offered as BIOL 4309 and PSYC 4309; credit will be granted only once. Prerequisite: one or more of the following courses or permission of instructor: BIOL 1441 or PSYC/BIOL 3322 or BIOL 3301.

BIOL 4312 INTRODUCTION TO VIROLOGY (3-0) The nature, reproduction, and host cell interactions of viruses and virus-like agents of bacteria, animals, and plants. Prerequisite: BIOL 1441, 3444, 3315 or 3333.

BIOL 4313 MOLECULAR GENETICS (3-0) A comprehensive survey of molecular genetics with an emphasis on eucaryotic systems: DNA structure and chromosome arrangement; molecular evolution; gene regulation and expression; RNA processing; signal transduction; cancer biology. Prerequisite: BIOL 1441, 3315.

BIOL 4315 GENERAL ENDOCRINOLOGY (3-0) The vertebrate endocrine system. The cellular origin of hormones, their role in physiological regulation, and the mechanism of hormone action. Prerequisite: BIOL 1441, 1442, 3301, 3315; at least one physiology course, and senior standing.

BIOL 4325 DEVELOPMENTAL PSYCHOBIOLOGY (3-0) The biological basis of behavioral development. A survey of the influences of maternal factors, genes, hormones, teratogens, early nutrition, and environmental change upon the maturation of the central nervous system. Basic concepts such as critical periods, the organization of behavioral systems, neural plasticity, and the ontogeny of consciousness. Offered as BIOL 4325 and PSYC 4325; credit will be granted only once. Students seeking credit toward the science requirement must enroll in BIOL 4325. Prerequisite: PSYC 3310 or PSYC 3322 (BIOL 3322), or BIOL 3346.

BIOL 4326 WETLAND ECOLOGY (3-0) Introduction to the diverse field of wetland ecology including formation of wetlands, biogeochemistry of wetland soils, hydrology, and biotic adaptations to wetland environments. Prerequisite: BIOL 2343, CHEM 1441.

BIOL 4327 BEHAVIORAL GENETICS (3-0) Genetic influences on behavioral phenotypes. Research strategies, quantitative methods, and pharmacogenetic approaches to the brain; sociality and altruism; the personality, emotionality and intelligence; psychopathology; chromosomal

abnormalities; forensic implications of genetic counseling. Offered as BIOL 4327 and PSYC 4327; credit will be granted only once. Students seeking credit toward the science requirement must enroll in BIOL 4327. Prerequisite: BIOL 3315 or PSYC 2441.

BIOL 4330 EVOLUTION OF DEVELOPMENT (3-0) The diversity of animal and plant forms can largely be raced 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 lecturers and seminars; relevant scientific papers will be read and commented on in class. Prerequisite: BIOL 3315.

BIOL 4331 ADVANCED MOLECULAR BIOLOGY (3-0) Molecular biology, protein-nucleic acid interactions, nucleic acid biochemistry, and the RNA World. Prerequisite: BIOL 1441, 1442, 3315, General Chemistry (CHEM 1441 & 1442). Recommended, but not required: CHEM 2321.

BIOL 4338 COMMUNITY ECOLOGY (3-0) The effects interspecific interactions have on the distribution and abundance of organisms. Prerequisite: BIOL 1441, 1442, 2343, and three semester hours of ecology.

BIOL 4345 MICROBIAL PHYSIOLOGY (3-0) 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. Prerequisite: BIOL 1441 and 3444. CHEM 4311 recommended.

BIOL 4346 TECHNIQUES IN MICROBIAL AND MOLECULAR GENETICS (1-5) A laboratory based techniques course focusing on current methods in microbial and molecular genetics. Students will design experiments and perform: bacterial mutagenesis and phage transduction; selection, screening and physical mapping of mutants; blots, plasmid manipulations including purification, digestion, subcloning, bacterial transformations; PCR and DNA sequencing. Prerequisite: BIOL 1441, 3444, and 3315 or permission of the instructor.

BIOL 4350 CONSERVATION BIOLOGY (3-0) Introduction to theory and practice of conservation biology, with emphasis on applications of modern quantitative and genetic techniques to preservation of organisms and habitats. Topics include identification and prioritization of units for protection; conservation genetics; preserve design; public policy issues; and case studies. Prerequisite: BIOL 3315 or equivalent (Genetics), or permission of the instructor.

BIOL 4352 FORENSIC BIOLOGY (3-0) A comprehensive review of biological principles, applied to forensic science, including sample recovery and handling, analytical techniques, profile matching/exclusion, reporting, and testimony. Prerequisite: BIOL 3315;

statistics course recommended; or permission of instructor.

BIOL 4354 ENVIRONMENTAL HEALTH (3-0) Basics of the broad range of health considerations at the core of environmental projects and regulation. The course will provide the knowledge required for students to successfully complete the Texas Registered Sanitarian Examination or the Environmental Health Association's Registered Environmental Health Specialist Examination. Prerequisite: BIOL 1441, 1442; CHEM 1441, 1442; PHYS 1441 or permission of the environmental biology option advisor.

BIOL 4355 METHODS IN FORENSIC BIOLOGY (1-6) Analysis of typical biological evidentiary samples including extraction of DNA, quantitation, amplification and electrophoresis of examples. Instrumentation utilized includes thermal cyclers and ABI 377 genetic analyzer. Prerequisite: BIOL 4352 or concurrent enrollment.

BIOL 4357 HEALTH PSYCHOLOGY (3-0) This course provides a broad introduction to health psychology and its interface with the medical world. The course provides a balanced presentation of the important issues in the field, as well as specific content topics that are especially relevant today to better understand health and illness. Offered as BIOL 4357, HEED 4357, and PSYC 4357. Students seeking science requirement credit must enroll in BIOL 4357; students seeking Certification in Health must enroll in HEED 4357. Prerequisite: PSYC 1315 or BIOL 1333 or BIOL 1441 or BIOL 2457; junior standing recommended.

BIOL 4379 DIRECTED STUDY (3-0) Independent study by individual students in biology under the supervision of a biology faculty member. Topics must be approved by the supervising faculty member. Prerequisite: BIOL 1441, 1442, and permission of instructor.

BIOL 4388 INSTRUCTIONAL TECHNIQUES IN BIOLOGY (0-6) Students will participate in laboratory instruction and student recitation sessions under the supervision of a faculty member. A maximum of 3 hours can be applied to the major for biology or microbiology credit. Enrollment by departmental permission only. A maximum of 6 hours credit from this class will be used to calculate a student's grade point average. Students on probation or who have not qualified for major status may not enroll in this course.

BIOL 4391 RESEARCH WORKSHOP IN MATHEMATICAL BIOLOGY (3-0) Special topics in mathematics are assigned to individuals or small groups. Faculty members closely supervise the projects and assign library reference material. Small groups will hold seminars at suitable intervals. May be repeated for credit.

BIOL 4393 HONORS SENIOR PROJECT IN BIOLOGY (1-5) A topic will be selected after consultation with a supervising professor and will involve both original research and writing a formal report. The work will be evaluated by a faculty honors committee. Completion of this course will satisfy the thesis requirement for the Honors College described elsewhere in this catalog.

BIOL 4395 FORENSICS-EL PA (3-0)

BIOL 4444 VERTEBRATE NATURAL HISTORY (3-3) Lecture will cover the systematics, life histories, morphology, ethology and distribution of world vertebrates, with emphasis on tetrapods. The laboratory will provide the opportunity to examine and identify a taxonomically comprehensive collection of amphibians, reptiles, birds and mammals. Prerequisite: BIOL 1441, 1442, 2343.

BLAW 3311 LAW I (3-0) The law relevant to business transactions of large and small business firms and individuals. The history and development of our legal system, (e.g. increased government regulation of business) reviewed to help the student understand political and social influences on law. Topics covered include common law and Uniform Commercial Code, and contractual relationships (contracts, assignments, commercial papers, sales, and bailments).

BLAW 3312 LAW II (3-0) The law of property (real and personal), business associations (agency, partnership, corporation, bankruptcy), wills and trusts. Prerequisite: 60 credit hours.

BLAW 3314 REAL ESTATE LAW (3-0) Development of real estate law and the legal constraints within which real estate decisions are made. Prerequisite: 60 credit hours.

BLAW 4310 BASIC INTERNATIONAL LAW FOR BUSINESS (3-0) The basic principles of law related to international transactions and relations as may be applicable to business dealings. Laws related to persons and property in the foreign environment. Prerequisite: 60 credit hours.

BSTAT 3321 BUSINESS STATISTICS I (3-0) Application of statistical techniques to business and economic data. Descriptive statistics, probability distributions, estimation, inference, regression, correlation, and time series. Prerequisite: INSY 2303 and MATH 1315.

BSTAT 3322 BUSINESS STATISTICS II (3-0) Application of statistical inference to problems in business and economics. Sampling theory, nonparametric methods, and forecasting. Special attention to statistical research. Prerequisite: BSTAT 3321.

BUSA 2304 INTRODUCTION TO BUSINESS (3-0) Nature and functions of business: business economy, entrepreneurship and small business, the management process, human resource management, marketing, management information tools, finance, legal and tax environment, and risk and insurance. Will not serve to meet the degree requirements for College of Business Administration majors.

CE 1104 INTRODUCTION TO ENGINEERING (1-0) Introduction to basic engineering concepts. Students will become familiar with engineering and its many sub-fields, ethical responsibilities, creativity and design.

CE 1105 INTRODUCTION TO CIVIL ENGINEERING (0-3) Introduction to basic civil engineering practice. There are several writing assignments and an oral

presentation. Use of spreadsheet and word processor software in solving civil engineering problems and presenting solutions. Professional engineering licensure and the various specializations within civil engineering are covered. Prerequisite: Grade of C or better in CE 1104 or concurrent enrollment.

CE 1350 COMPUTER AIDED DRAFTING (2-3) Manual and computer aided drafting including coverage of AutoCAD applications commonly used in civil and architectural drafting. Typical computer-aided drafting tasks such as creating entities and creating and modifying objects and drawings will be covered. Prerequisite: Grade of C or better in MATH 1323 or concurrent enrollment.

CE 2191 PROBLEMS IN CIVIL ENGINEERING (1-0) Selected problems in civil engineering on an individual or group basis. Reference material is assigned and progress conferences are held frequently, by arrangement, with a faculty supervisor. Prerequisite: permission of the chair of the department and sophomore classification in civil engineering.

CE 2210 DYNAMICS (2-0) Planar and spatial kinematics and kinetics of individual particles and systems of particles utilizing Newtonÿs Laws of Motion, the Principle of Work and Energy, and the Principle of Impulse and Momentum; steady flow and variable mass systems; frictional forces; single degree of freedom vibration. Prerequisite: Grade of C or better in CE 2311; grade of C or better in MATH 2425.

CE 2291 PROBLEMS IN CIVIL ENGINEERING (2-0) Selected problems in civil engineering on an individual or group basis. Reference material is assigned and progress conferences are held frequently, by arrangement, with a faculty supervisor. Prerequisite: permission of the chair of the department and sophomore classification in civil engineering.

CE 2311 STATICS (2-2) Vector algebra; composition and resolution of forces; equivalence of force couple systems; equilibrium of force systems acting on particles, and force - couple systems acting on rigid bodies, and systems of rigid bodies; internal forces in rigid bodies; shear and moment diagrams; centroids and moments of inertia. Prerequisite: Grade of C or better in PHYS 1443; Grade of C or better in MATH 2425 or concurrent enrollment.

CE 2312 STATICS AND DYNAMICS FOR NON-CE MAJORS (2-2) The lecture covers principles of forces and force systems, resultants and components of force systems, forces due to friction, condition of equilibrium, forces acting on members of trusses and frame structures, centroids and moments of inertia, review of kinematics and kinetics of particle motion, and two-dimensional motion of rigid bodies. The lab period is used for reinforcement of the course principles through problem solving as well as computer simulation demonstrations. CE 2312 cannot be substituted for CE 2210 and CE 2311. Prerequisite: PHYS 1443 and MATH 2425 or concurrent enrollment.

CE 2313 MECHANICS OF MATERIALS I (3-0) Concepts of stress and strain; stress-strain relationships. Behavior of members subjected to tension, compression, shear,

bending, torsion, and combined loading. Deflections and elastic curves, shear and bending moment diagrams for beams, and column theory. Prerequisite: Grade of C or better in CE 2311; Grade of C or better in MATH 2425.

CE 2331 ENGINEERING MEASUREMENT & COMPUTER MODELING (2-3) Principles and theories of physical measurements of spatial quantities; the use of surveying instruments; introduction to engineering using computer modeling programs; and organization and programming for computer solutions. Prerequisite: Grade of C or better in CE 1350.

CE 2391 PROBLEMS IN CIVIL ENGINEERING (3-0) Selected problems in civil engineering on an individual or group basis. Reference material is assigned and progress conferences are held frequently, by arrangement, with a faculty supervisor. Prerequisite: permission of the chair of the department and sophomore classification in civil engineering.

CE 3110 CIVIL ENGINEERING COMMUNICATIONS (1-0) Technical writing, oral communication, professional presentations, and other related topics. Prerequisite: Grade of C or better in COMS 3302.

CE 3131 ENVIRONMENTAL ANALYSIS (0-3) Laboratory examinations of water, wastewater, and air. Water and air quality parameters and their significance. Sources and types of pollutants and their effects. Prerequisite: Grade of C or better in CE 3334 or concurrent enrollment.

CE 3142 APPLIED FLUID MECHANICS LAB (0-3) Fluid flow measurements studied by means of performed laboratory experiments and/or digital computer programming of relevant equations. Prerequisite: Concurrent enrollment in CE 3309.

CE 3143 PROPERTIES AND BEHAVIOR OF SOILS (0-3) An introduction to determination of civil engineering properties of soil and their behavior, identification, grain size analysis, Atterberg limits, compaction, permeability, consolidation, and shear strength. Also an introduction to sampling of soil materials. Prerequisite: Grade of C or better in CE 3343 or concurrent enrollment.

CE 3161 ENGINEERING MATERIALS LABORATORY (0-3) Various properties and behavior of engineering materials are investigated by laboratory experimentation. Prerequisites: Grade of C or better in CE 3261 or concurrent enrollment.

CE 3261 PROPERTIES AND BEHAVIOR OF ENGINEERING MATERIALS (2-0) The nature and properties of materials used in civil engineering such as structural metals, concrete, timber, and bituminous materials. The engineering application and performance of materials are emphasized. Prerequisite: Grade of C or better in either CHEM 1465 or 1442; Grade of C or better in CE 2313 or concurrent enrollment; concurrent enrollment in CE 3161.

CE 3301 STOCHASTIC MODELS FOR CIVIL ENGINEERING (3-0) Basic theory of probability and statistics with practical applications to civil and environmental

engineering problems. Emphasis on sampling, distribution functions, tests of significance, and regression modeling. Prerequisite: Grade of C or better in MATH 2326 or concurrent enrollment.

CE 3302 TRANSPORTATION ENGINEERING (3-0) Planning, design, and operation of transportation facilities. Characteristics of vehicle movement; basic geometric design of highways; traffic flow relations in traffic streams; highway capacity; traffic engineering; and procedures for transportation planning. Prerequisite: Grade of C or better in CE 2331; and Grade of C or better in either CE 3301 or IE 3301, or concurrent enrollment.

CE 3305 BASIC FLUID MECHANICS (3-0) Fundamentals of fluid statics, kinematics of fluid flow, fluid energy, fluid forces, similitude, and dimensional analysis. Related to steady flow of incompressible fluids in confined and free surface systems. Prerequisite: Grade of C or better in CE 2210; Grade of C or better in CE 2313 or concurrent enrollment; Grade of C or better in MATH 3319 or concurrent enrollment.

CE 3309 INTRODUCTION TO HYDROLOGY (3-0) Engineering topics pertaining to the hydrological cycle. Computational techniques and use of application software for analysis of rainfall and runoff. Design skills for stormwater mitigation will be applied to course project. Prerequisite: Grade of C or better in CE 3301 or IE 3301; Grade of C or better in CE 3305; concurrent enrollment in CE 3142.

CE 3310 CONSTRUCTION AND VALUE ENGINEERING (3-0) Principles of construction engineering and engineering decision making process, including U.S. construction industry, quantity takeoff, cost estimating, scheduling and project control, simple and compound interest calculations, equivalence, present worth, uniform annual cost, rate of return, depreciation, equipment replacement, and competing projects. Prerequisite: Grade of C or better in CE 2313; grade of C or better in either CE 3301 or IE 3301 or concurrent enrollment.

CE 3334 PRINCIPLES OF ENVIRONMENTAL ENGINEERING (3-0) Physical, chemical, and biological unit operations and processes in an air, water, and land environment. Prerequisites: Grade of C or better in CHEM 1465 or 1442; Grade of C or better in CE 3305; concurrent enrollment in CE 3131.

CE 3341 STRUCTURAL ANALYSIS (3-0) Structural analysis/design process, structural forms, and basic structural elements. Analysis of statically determinate structures including beams, trusses, frames, and composite structures, shear and moment diagrams, influence lines, and moving loads. Methods to compute deflections including double integration, moment area, and virtual work. Methods of analysis for statically indeterminate structures including consistent deformation, slope deflection and moment distribution. Use of structural analysis programs. Prerequisite: Grade of C or better in CE 2313.

CE 3343 SOIL MECHANICS (3-0) An introduction to the significant geophysical and soil science properties and behavior of materials making up the earth's crust as

they apply to civil engineering, sources of materials, classification, plasticity, permeability, stress distribution, consolidation, shear strength, and settlement. Also an introduction to basic foundation engineering concepts. Prerequisite: Grade of C or better in CE 2313; concurrent enrollment in CE 3143.

CE 4191 PROBLEMS IN CIVIL ENGINEERING (1-0) Selected problems in civil engineering on an individual or group basis. Reference material is assigned and progress conferences are held frequently, by arrangement, with a faculty supervisor. Prerequisite: permission of the chair of the department and sophomore standing in civil engineering.

CE 4291 PROBLEMS IN CIVIL ENGINEERING (2-0) Selected problems in civil engineering on an individual or group basis. Reference material is assigned and progress conferences are held frequently, by arrangement, with a faculty supervisor. Prerequisite: permission of the department chairperson and sophomore standing in civil engineering.

CE 4300 ADVANCED TOPICS IN CIVIL ENGINEERING (3-0) Advanced topics of current interest in any one of the various fields of civil engineering. The subject title to be listed in the class schedule. May be repeated for credit when topic changes. Prerequisite: changes with topic; consent of instructor required.

CE 4301 CONSTRUCTION JOB COST CONTROL (3-0) 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. Prerequisite: Grade of C or better in either CE 3310 or IE 3312.

CE 4302 INFRASTRUCTURE EVALUATION AND MAINTENANCE MANAGEMENT (3-0) Designed for engineers and managers involved in infrastructure development, sustainability, and replacement. Topics include asset management, inspection, evaluation, maintenance and rehabilitation alternatives for water distribution, waste and water collection, surface and subsurface drainage, pavements, bridges, culverts, buildings, and other structures. Prerequisite: Grade of C or better in either CE 3310 or IE 3312.

CE 4305 TRENCHLESS TECHNOLOGY METHODS (3-0) Pipeline and utility design, construction and renewal. Topics include pipeline infrastructure structural considerations, planning and construction considerations, pipe materials, and trenchless technologies. Prerequisite: Grade of C or better in either CE 3310 or IE 3312.

CE 4306 INFRASTRUCTURE ASSET MANAGEMENT (3-0) Infrastructure inventory, inspection, and life cycle costs. Topics include pipeline deterioration parameters, asset management technologies, risk assessment, government regulations and case studies. Prerequisite: Grade of C or better in either CE 3310 or IE 3312.

CE 4311 URBAN TRANSPORTATION INFRASTRUCTURE PLANNING (3-0) Urban

transportation system design, planning, transportation modeling, economic theory, travel demand and travel estimation techniques. Prerequisite: Grade of C or better in CE 3302.

CE 4312 STREET AND HIGHWAY DESIGN (3-0) The geometric design concepts for urban and rural roadways. Consideration of vehicle and road user characteristics in roadway design, including horizontal and vertical alignments, intersections, interchanges, and roadway cross-section and right-of-way considerations. Prerequisite: Grade of C or better in CE 3302.

CE 4313 TRAFFIC ENGINEERING (3-0) Design and control of fixed-time, actuated, and computer-controlled traffic signals; optimization of traffic flow at intersections; capacity analysis of intersections, legal requirements and traffic studies for installation of traffic control devices; characteristics of signs, signals, and markings; traffic laws. Prerequisite: Grade of C or better in CE 3302.

CE 4320 EARTH STRUCTURES DESIGN (3-0) Study of the states of stress and analysis/design techniques associated with cuts, fills, and retaining structures. Includes slope stability, conventional and reinforced earth retaining walls, excavation bracing, and sheet pile wharf structures. Prerequisite: Grade of C or better in CE 3343.

CE 4321 FOUNDATION ENGINEERING (3-0) Aspects of design and construction considerations for all types of foundation systems in most soil/rock support conditions, interactions between soils and structures, bearing capacity theories, consolidation, shrink-swell, and settlement. Numerical analyses of design are applied to most of the situations. Prerequisite: Grade of C or better in both CE 3341 and CE 3343.

CE 4322 APPLICATIONS WITH GEOSYNTHETICS (3-0) Definitions and properties of geotextiles, geogrids, geonets, geocomposites and geomembranes; reinforcement design applications in rigid and flexible pavements, foundations, embankments, slopes and retaining walls; drainage and filtration application designs, AASHTO design criteria; construction methods. Prerequisite: Grade of C or better in CE 3343.

CE 4323 LANDFILL DESIGN (3-0) 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. Prerequisite: Grade of C or better in CE 3343.

CE 4324 MECHANICS OF MATERIALS II (3-0) Theories of stress and deformation, stress-strain tensors, stress and 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 and buckling analysis. Prerequisite: Grade of C or better in CE 2313.

CE 4325 FUNDAMENTALS OF FINITE ELEMENT METHOD (3-0) Stiffness method using basic equations and virtual work; element equations using shape functions for axial, beam, frame, two dimensional elements; stiffness methods for three dimensional structures. Flexibility method; finite elements modeling and optimization of idealized structures. Prerequisite: Grade of C or better in CE 3341.

CE 4328 WATER SYSTEM DESIGN (3-0) Hydraulic/hydrologic analysis and design of municipal water distribution, stormwater collection, and wastewater collection systems. Prerequisite: Grade of C or better in CE 3309.

CE 4330 HYDRAULIC DESIGN (3-0) Design methods for appurtenances of water conveyance systems under open channel and pressure flow conditions. Prerequisite: Grade of C or better in CE 4328, or consent of instructor.

CE 4332 CONSTRUCTION EQUIPMENT, METHODS, & MANAGEMENT (3-0) Introduction to the construction industry and the methods, equipment, and management techniques used. Topics include equipment operating characteristics, underground construction, job site safety, and field management. Prerequisite: Grade of C or better in CE 3343.

CE 4334 CONSTRUCTION CONTRACTS AND SPECIFICATIONS (3-0) Introduction to legal and contractual aspects of construction, types of construction contracts, contractual relationships among different parties, construction administration, insurance, and concepts in value engineering. Topics include different types of specifications and CSI Master Format. Prerequisite: Grade of C or better in either CE 3310 or IE 3312.

CE 4336 HOT MIX ASPHALT DESIGN & CONSTRUCTION (2-3) 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. Prerequisites: Grade of C or better in CE 3261.

CE 4337 PORTLAND CEMENT CONCRETE PAVEMENTS (3-0) 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. Prerequisite: Grade of C or better in CE 3261.

CE 4347 REINFORCED CONCRETE DESIGN (3-0) An analysis, design and synthesis course for concrete structures, emphasizing elastic analysis and strength design. Topics include strength and serviceability requirements. Design of one way slabs, rectangular beams, flanged sections and

columns, and footings for strength, shear, bond, bearing, and serviceability. Building codes, American Concrete Institute (ACI) specifications, material specifications, test methods, and recommended practice documents. Prerequisite: Grade of C or better in CE 3341.

CE 4348 STRUCTURAL DESIGN IN STEEL (3-0) A design synthesis course for structural steel structures using Allowable Strength Design and Load Resistance Factor Design. Topics include tension members, compression members, flexural members and simple connections. Building codes, American Institute of Steel Construction (AISC) specs, material specs, test methods, and recommended practice documents. Prerequisite: Grade of C or better in CE 3341.

CE 4350 INTRODUCTION TO AIR POLLUTION (3-0) An introduction to the air pollution field which encompasses a wide range of topics, including: atmosphere and ideal gas law; pollutant types, sources, effects; Clean Air Act; gas flow measurement; air pollutant measurement; air pollution meteorology and dispersion modeling; air pollution control. Prerequisite: Grade of C or better in both CE 3131 and CE 3334.

CE 4351 PHYSICAL UNIT PROCESSES (3-0) Principles of unit process modeling using reactor and kinetic theory, and theory and design of mixing, mass transfer, flocculation, sedimentation, filtration, and gas transfer. Prerequisite: Grade of C or better in both CE 3131 and CE 3334.

CE 4352 PROFESSIONAL PRACTICE (2-3) Professional practice issues in the private and public sector are addressed by visiting practitioners. Topics include project management, teamwork, obtaining work, regulatory requirements, specifications, issues in design/build, design alternatives, cost estimation, design and construction drawings, contract and construction law, legal issues, ethics and professionalism, design reports, licensure, lifelong learning, ethical and engineering practice organizations. Learning principles of engineering practice by working as a team is emphasized. Oral and written presentations are required. Prerequisite: Grade of C or better in CE 3110; Grade of C or better in either CE 3310 or IE 3312; Grade of C or better in COMS 3302.

CE 4354 INTRODUCTION TO SOLID AND HAZARDOUS WASTE MANAGEMENT (3-0) Sources, chemistry, monitoring, and classifications of solid and hazardous wastes. Discussions of environmental hazards, legal aspects, transportation, detoxification, storage, and disposal and incineration. Prerequisite: Grade of C or better in both CE 3334 and CE 3131.

CE 4355 DESIGN OF WATER AND WASTEWATER TREATMENT FACILITIES (3-0) 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. Prerequisite: Grade of C or better in both CE 3334 and CE 3142.

CE 4358 OPEN CONDUIT SYSTEM (3-0) Non-pressure conduit and channel flow, surface profiles, steady and gradually varied flow, hydraulic jumps, and specific energy. Prerequisite: Grade of C or better in CE 4328 or consent of instructor.

CE 4360 DESIGN OF STRUCTURAL MASONRY (3-0) Covers masonry unit types and mortar types, reinforcing and connections. Design of beams, columns, pilasters, and walls. Structural behavior and construction practices. Includes plain and reinforced masonry. Building Codes, Masonry Standards Joint Committee (MSJC) specifications, material specifications, test methods, and recommended practice documents. Prerequisite: Grade of C or better in CE 3341.

CE 4361 ADVANCED REINFORCED CONCRETE DESIGN (3-0) Includes structural design of slender columns, truss model for shear and torsion; structural systems such as continuous beams, two-way slabs, yield-line theory and shear friction. Approximate methods for design and analysis of concrete elements and frames. Building code, American Concrete Institute (ACI) specifications, material specifications, test methods, and recommended practice documents. Prerequisite: Grade of C or better in CE 4347.

CE 4363 FUNDAMENTALS OF PRESTRESSED CONCRETE (3-0) Introduction to pre-tensioned and post-tensioned concrete structures, bonded and unbonded constructions, 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) and American Association of State Highway and Transportation Officials (AASHTO-LRFD) provisions will be discussed. Prerequisite: Grade of C or better in CE 4347.

CE 4365 STRUCTURAL WOOD DESIGN (3-0) Covers material grade and properties of wood, design criteria using structural lumber, glue laminated lumber and structural panels. Design of bending and compression members, trusses and diaphragms. Building codes, National Design Specification for Wood Construction (NDS) specifications, material specifications, test methods, and recommended practice documents. Prerequisite: Grade of C or better in CE 3341.

CE 4366 FUNDAMENTALS OF FIBER REINFORCED COMPOSITES (3-0) Introduction to basic analysis, design and manufacture of composite materials for engineered structures. Fiber materials, tapes, cloths, resin system, 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. Prerequisite: Grade of C or better in CE 3341.

CE 4368 ADVANCED STRUCTURAL ANALYSIS (3-0) Advanced analysis of

indeterminate beam, frames, and trusses. Analysis of single suspension systems; cables and arches; and nonlinearity of cable suspension systems, and plastic analysis of structures. Large deformation and nonlinear analysis of frame structures. Linear and nonlinear dynamic analysis of frames. Prerequisite: Grade of C or better in CE 4325.

CE 4369 LOADS ON STRUCTURES (3-0) Structural analysis of structures under gravity and lateral loads, emphasizing the logical reasoning process of analysis, synthesis and design. Use of recommended practice documents and commercial structural and mathematical software will assist in providing insight and understanding of load requirements, structural behavior and analysis tools. Prerequisite: Grade of C or better in CE 3341.

CE 4383 SENIOR PROJECT (2-3) Planning, analysis of alternatives, and designs of selected projects that cross various civil engineering disciplines. Application of computer-aided engineering in analysis and design. A final oral presentation and written report that present pros and cons of alternative solutions are required. A team approach is emphasized. Prerequisite: Grade of C or better in CE 4352, completion of all required CE courses; and a minimum of one CE technical elective with a grade of C or better; one required CE course may be taken concurrently.

CE 4391 PROBLEMS IN CIVIL ENGINEERING (3-0) Selected problems in civil engineering on an individual or group basis. Reference material is assigned and progress conferences are held frequently, by arrangement, with a faculty supervisor. Prerequisite: permission of the chair of the department and sophomore standing in civil engineering.

CHEM 1188 GENERAL CHEMISTRY I LABORATORY (0-4) This course is intended to provide laboratory credit in freshman chemistry for students who transfer into UT-Arlington with credit in General Chemistry I lecture only. Experiments include: measurement and scientific equipment use, physical properties, separations, synthesis, qualitative analysis, spectroscopy. Students may register for this course only with specific approval of a Chemistry advisor. Prerequisite: 3 hours of General Chemistry I lecture. Credit cannot be earned for both CHEM 1441 and CHEM 1188.

CHEM 1189 GENERAL CHEMISTRY II LABORATORY (0-4) This course is intended to provide laboratory credit in freshman chemistry for students who transfer into UT-Arlington with credit for General Chemistry lecture only. Experiments include: thermodynamics, electrochemistry, synthesis, quantitative analysis, spectroscopy, stoichiometry, and acid-base chemistry. Students may register for this course only with specific approval of a Chemistry advisor. Prerequisite: CHEM 1188 and 6 hours of General Chemistry II lecture. Credit cannot be earned for both CHEM 1442 and CHEM 1189.

CHEM 1300 INTRODUCTORY CHEMICAL PRINCIPLES (3-0) Provides a background in fundamental chemical mathematics, in writing and understanding chemical formulas and equations, and in the

application of scientific laws to the behavior of matter. This course is designed for the student with little or no previous chemical training who intends to take the CHEM 1441/1442 sequence at a later date. CHEM 1300 cannot replace CHEM 1441/1442 for major credit toward a degree in chemistry. Prerequisite: MATH 1302 or equivalent.

CHEM 1441 GENERAL CHEMISTRY I (3-4) The lecture covers the fundamentals of atomic structure, chemical bonding, the periodic table, nomenclature, kinetic theory, gas laws, chemical equations, and solutions. The laboratory introduces the scientific method, experiment design, data collection and analysis, as well as illustrates fundamental principles presented in the lecture. Students who have not had high school chemistry are advised to take an introductory chemistry course first. Prerequisite: MATH 1302 or MATH 1303 or MATH 1322 or MATH 1323 or MATH 1426 or MAT Algebra score = / > 17 or SAT Math score = / > 600 or ACT Math score = / > 26.

CHEM 1442 GENERAL CHEMISTRY II (3-4) Study of advanced atomic structure and bonding concepts, acid-base theory, kinetics and equilibria, thermodynamics, electrochemistry, the chemistry of some elements. The laboratory focuses on experimental design, data collection and analyses as well as chemical syntheses to illustrate fundamental principles presented in the lecture. Prerequisite: CHEM 1441 or equivalent with a grade of C or better (which may include satisfactory score on Advanced Standing Examination through UTA Assessment Services).

CHEM 1445 CHEMISTRY FOR NON-SCIENCE MAJORS (3-3) Chemistry of things of everyday life: energy, radioactivity, petroleum products, pollution, the nature of matter, and the applications of chemistry to things we use. CHEM 1445, 1446 cannot be used to fulfill the 1441/1442 requirement in any degree program.

CHEM 1446 CHEMISTRY II FOR NON-SCIENCE MAJORS (3-3) Continuation of the chemistry of things of everyday life. Vitamins, minerals, chemical additives, plastics, cosmetics, proteins, carbohydrates, poisons, fats, and oils. Prerequisite: CHEM 1445 or equivalent with a grade of C or better. CHEM 1445, 1446 cannot be used to fulfill the 1441/1442 requirement in any degree program.

CHEM 1451 CHEMISTRY FOR HEALTH SCIENCES (3-3) Survey of general, organic, and biochemistry with emphasis on applications to the human body. Measurement, atomic theory and structure, bonding, quantitative relationships in chemical reactions, gases, solutions, electrolytes, organic functional groups and nomenclature, organic reactions, carbohydrates, lipids, proteins, enzymes, metabolism, and nucleic acids. CHEM 1451 cannot count for major credit toward a degree in chemistry. Prerequisite: MATH 1301 or MATH 1302 or equivalent.

CHEM 1465 CHEMISTRY FOR ENGINEERS (3-4) An introduction to important concepts and principles of chemistry with emphasis on areas considered most relevant in an engineering context. Topics include chemical stoichiometry, bonding, chemical thermodynamics, equilibria,

electrochemistry, and kinetics. Engineering students may substitute the eight hour sequence CHEM 1441 and CHEM 1442 for this class, but not either CHEM 1441 or 1442 alone. Students who complete CHEM 1465 and subsequently change majors to curricula that require both CHEM 1441 and CHEM 1442 may substitute CHEM 1465 for CHEM 1441. Prerequisite: high school chemistry and MATH 1323 or concurrent enrollment.

CHEM 2180 RESEARCH IN CHEMISTRY (0-0) Research for undergraduate students supervised by faculty of the department. May be repeated. Graded pass/fail only. Prerequisite: written permission of the instructor. Students may take a maximum of 12 hours credit on a pass/fail basis.

CHEM 2181 ORGANIC CHEMISTRY I LABORATORY (0-4) Experiments which illustrate laboratory techniques, theoretical concepts, and synthesis. Prerequisite: CHEM 1442 with a grade of C or better. Corequisite: CHEM 2321. If student withdraws from CHEM 2321prior to midsemester date, student must also withdraw from CHEM 2181.

CHEM 2182 ORGANIC CHEMISTRY II LABORATORY (0-4) Experiments which will include syntheses, characterization of unknown substances, and use of the chemical literature. Prerequisite: CHEM 2181 with a grade of C or better. Corequisite: CHEM 2322. If student withdraws from CHEM 2322 prior to the midsemester date, student must also withdraw from CHEM 2182.

CHEM 2285 QUANTITATIVE CHEMISTRY LABORATORY (0-8) An introduction to computers for the acquisition and statistical analysis of data. Laboratory exercises involving basic titrimetric, spectrophotometric and chromatographic methods. Prerequisite: CHEM 1442 or equivalent with a grade of C or better, and concurrent enrollment/previous credit in CHEM 2335.

CHEM 2321 ORGANIC CHEMISTRY (3-0) The fundamentals of molecular structure, stereochemistry, and the reactions of aliphatic hydrocarbons. Electronic theory, synthetic methods, and mechanisms. Prerequisite: CHEM 1442 with a grade of C or better.

CHEM 2322 ORGANIC CHEMISTRY (3-0) Organic spectroscopic analysis. The chemistry of aromatic hydrocarbons, alcohols and ethers, aldehydes, ketones, carboxylic acids and derivatives, amines, amino acid, carbohydrates, and other functional groups. Mechanisms and synthesis. Prerequisite: CHEM 2321 with a grade of C or better.

CHEM 2335 QUANTITATIVE CHEMISTRY (3-0) Basic methods of error analysis, simple and advanced methods for the solution of complex equilibria, fundamentals of titrimetric, spectrophotometric and chromatographic instrumental analysis. Prerequisite: CHEM 1442 or equivalent, three hours of College Algebra or equivalent, CHEM 2285 concurrent enrollment or previous credit.

CHEM 2380 UNDERGRADUATE RESEARCH (0-0) Research in chemistry supervised by a faculty member of the department. May be

repeated. Graded pass/fail only. Prerequisite: written permission of the instructor. Students may take a maximum of 12 hours credit on a pass/fail basis.

CHEM 3175 BIOPHYSICAL CHEMISTRY LABORATORY (0-4) Introduction to the physical experimental techniques used in quantitative biochemical practice.

CHEM 3181 PHYSICAL CHEMISTRY I LABORATORY (0-4) The physical and thermodynamic properties of substances, experimentally determined. Prerequisite: Grade of C or better in CHEM 2285, CHEM 2335, and CHEM 3321 or concurrent enrollment.

CHEM 3182 PHYSICAL CHEMISTRY II LABORATORY (0-4) Experiments in kinetics, equilibria, spectroscopy, and electrochemistry. Modern instrumental techniques. Grade of C or better in CHEM 3181 and CHEM 3322 (or concurrent enrollment).

CHEM 3307 INTRODUCTION TO POLYMER CHEMISTRY (3-0) The chemistry and technology of polymeric systems. The chemistry of natural systems such as proteins as well as the synthesis of fibers, films, plastics, and elastomers. Discussion of the characterization of polymers by modern techniques using instrumental analysis is followed by a summary of end-use and processing techniques. Prerequisite: CHEM 2322 with a grade of C or better or permission of instructor.

CHEM 3315 INTRODUCTION TO BIOPHYSICAL CHEMISTRY (3-0) A basic course introducing the physical principles that govern biological systems and processes, and the methods used for their investigation. Topics include solution thermodynamics, biomolecular interactions, enzyme kinetics, transport processes (diffusion, sedimentation, electrophoresis, viscous flow), and the applications of spectroscopic methods (absorption, emission and scattering of radiation, and the utilization of polarized light). Prerequisite: A grade of C or better in each of the following: CHEM 2335, MATH 2425 (or concurrent enrollment), and 8 hours of college level physics.

CHEM 3317 INORGANIC CHEMISTRY (3-0) An overview of descriptive main group chemistry, solid state structures and the energetics of ionic, metallic, and covalent solids, acid-base chemistry and the coordination chemistry of the transition metals. The course is intended to explore and describe the role of inorganic chemistry in other natural sciences with an emphasis on the biological and geological sciences. Important compounds and reactions in industrial chemistry are also covered. Intended for both chemistry and non-chemistry majors. Prerequisite: Grade of C or better in CHEM 2322 or concurrent enrollment.

CHEM 3321 PHYSICAL CHEMISTRY I (3-0) Solids, liquids, and gases, thermochemistry, thermodynamics, solutions, equilibria, and electrochemistry. Prerequisites: CHEM 2335, MATH 2326, both with a grade of C or better and PHYS 1443 and 1444. MATH 3318 concurrent enrollment recommended.

CHEM 3322 PHYSICAL CHEMISTRY II (3-0) Kinetics, quantum theory, molecular

structure, and statistical thermodynamics. Prerequisite: CHEM 3321 with a grade of C or better.

CHEM 4101 SEMINAR IN CHEMISTRY (1-0) Oral and written communication of chemical information. Seminars will be presented by students on topics from the current chemical literature. A term paper is required. The use of the library for researching the chemical literature will be emphasized. May be repeated for a total of two semester hours of credit. Prerequisite: senior standing in chemistry.

CHEM 4180 QUANTUM CHEMISTRY LABORATORY (0-4) Molecular modeling. Application of various computational techniques to chemical problems, including determination of molecular geometry, conformational analysis, and molecular energetics. Corequisite: CHEM 4303.

CHEM 4191 READINGS IN CHEMISTRY (0-0) May be repeated for a maximum of six hours credit. Topics arranged on an individual basis. Performance may be assessed by oral exam, written test, or review paper. Prerequisite: permission of department chair. Graded pass/fail only.

CHEM 4203 QUANTUM CHEMISTRY (2-0) A course emphasizing molecular quantum mechanics. Topics include the basic postulates of quantum mechanics, many electron wave functions, the variation method, and molecular orbital theory at various levels of approximation (Hueckel, Extended Hueckel, semi-empirical, ab initio, etc.). Related methods, such as force-field approaches and molecular dynamics, will be discussed. Prerequisite: CHEM 3322, with a grade of "C" or better.

CHEM 4242 LABORATORY TECHNIQUES IN BIOCHEMISTRY (1-3) Designed to introduce the student to biochemical laboratory methods; a practical approach to the properties of carbohydrates, proteins, enzymes, and nucleotides. Prerequisite CHEM 4311, with a grade of "C" or better.

CHEM 4291 READINGS IN CHEMISTRY (0-0) May be repeated for a maximum of six hours credit. Topics arranged on an individual basis. Performance may be assessed by oral exam, written test, or review paper. Prerequisite: permission of department chair. Graded pass/fail only.

CHEM 4311 BIOCHEMISTRY I (3-0) The chemistry of the sugars, amino acids, proteins, and nucleic acids, followed by an introduction to enzyme chemistry. The major metabolic pathways of the cell, glycolysis, TCA cycle, and pentose phosphate pathway. Auditing of this class is NOT permitted. Prerequisite: CHEM 2322, with a grade of "C" or better.

CHEM 4312 BIOCHEMISTRY II (3-0) A continuation of CHEM 4311. The breakdown and biosynthesis of fats and the synthesis of carbohydrates, including photosynthesis. Metabolic utilization of proteins and amino acids together with an introduction to protein synthesis. Prerequisite: CHEM 4311, with a grade of "C" or better, or equivalent.

CHEM 4313 METABOLISM AND REGULATION (3-0) Selected topics in advanced metabolism including biosynthesis of phospholipids, steroids, porphyrins and related molecules, and prostaglandins.

Membranes and transport phenomena, regulation of glycogen and glucose metabolism in muscle and lipid metabolism in adipose tissue. Prerequisite: CHEM 4312 with a grade of C or better.

CHEM 4314 ENZYMOLOGY (3-0) A comprehensive study of enzymes including structures, reaction mechanisms, regulation, and kinetics. Prerequisite: CHEM 4311 with a grade of C or better.

CHEM 4316 BIOCHEMICAL GENETICS (3-0) Aspects of the biochemistry of gene expression in prokaryotic and eukaryotic organisms and its regulation, together with genetic manipulations and the methodology of recombinant DNA technology. Prerequisite: CHEM 4312 with a grade of C or better.

CHEM 4318 INORGANIC CHEMISTRY (3-0) An overview of the chemistry of the transition metals. Topics include symmetry and applications, bonding models, magnetism, synthesis of metal complexes, modern characterization techniques including IR, NMR, and electronic spectroscopy, organometallic compounds, reaction mechanisms, catalysis, and bioinorganic chemistry. Prerequisite: CHEM 2322 with a grade of C or better.

CHEM 4346 ADVANCED SYNTHETIC METHODS (1-6) Methods and techniques for the synthesis and characterization of organic, inorganic, and organometallic compounds. Prerequisite: Grade of C or better in CHEM 2182, 2322, and 3317 or 4318.

CHEM 4380 UNDERGRADUATE RESEARCH (0-0) Research under the direction of a member of the department. No more than six hours of CHEM 4380 and 4381 may be taken for a letter grade. Prerequisite: written permission of the instructor and a minimum grade point average of 2.5.

CHEM 4381 HONORS RESEARCH (0-0) Research in chemistry under the direction of a member of the department, resulting in a written honors thesis. No more than 6 hours of CHEM 4380 and 4381 may be taken for a letter grade. Prerequisite: CHEM 2322, CHEM 2182, and admission to the University Honors College.

CHEM 4385 INSTRUCTIONAL TECHNIQUES IN CHEMISTRY (0-0) Students participate in undergraduate laboratory instruction or recitation sessions under the supervision of a faculty member. No more than 6 hours of CHEM 4385 may be taken for a letter grade. Enrollment by departmental permission only

CHEM 4387 UNIVERSITY-INDUSTRY CHEMISTRY COOPERATIVE (0-9) By special arrangement only. Cooperative study assignment doing chemical research in a local industrial chemical laboratory. Enrollment by departmental permission only. Graded pass/fail only.

CHEM 4391 READINGS IN CHEMISTRY (0-0) May be repeated for a maximum of six hours credit. Topics arranged on an individual basis. Performance may be assessed by oral exam, written test, or review paper. Prerequisite: permission of department chair. Graded pass/fail only.

CHEM 4392 ADVANCED TOPICS IN

CHEMISTRY (3-0) Topics arranged on an individual basis. May be repeated for credit as the topic varies. Prerequisite: permission of instructor.

CHEM 4461 INSTRUMENTAL ANALYSIS (2-8) The principles involved in the operation of modern analytical instruments and the laboratory use of such instruments. Prerequisite: Grades of C or better in CHEM 2285 and CHEM 2335.

CHIN 1441 BEGINNING CHINESE I (3-2) Multimedia immersion in the culture and language of China. Designed to enable students to understand and communicate effectively in Chinese at the beginning level. No prerequisites.

CHIN 1442 BEGINNING CHINESE II (3-2) Continuation of beginning Chinese. Prerequisite: CHIN 1441 with a grade of C or better.

CHIN 2313 INTERMEDIATE CHINESE I (3-0) Continued immersion in the culture and language of China. Application of strategies and technology in mastering listening, speaking, reading, and writing at the intermediate level. Prerequisite: CHIN 1442 with a grade of C or better.

CHIN 2314 INTERMEDIATE CHINESE II (3-0) Continuation of intermediate Chinese. Prerequisite: CHIN 2313 with a grade of C or better.

CIRP 4391 STUDIES CIRP (0-0) Advanced studies in various subjects of city and regional planning. May be repeated for credit. Prerequisite: consent of the instructor.

CJS 3320 HOMICIDE & CAPITAL PUNISHMENT (3-0) The course will provide students with an analysis of the nature, extent, and distribution of criminal homicide, one of the most egregious crimes that can be committed. Topics will include: statutory definition of homicide; trends and patterns of homicide; mass and serial murder; and victim/offender relationships. The course will also comprehensively examine the controversy surrounding the application of capital punishment (i.e., the death penalty) as a fait, just, and effective response to homicide. Topics will include: capital punishment through history; U.S. Supreme Court decisions on capital punishment; capital punishment proceedings in Texas; and contemporary problems with the application of the death penalty.

CLAS 1300 INTRODUCTION TO CLASSICAL MYTHOLOGY (3-0) Major Greek and Roman myths and their influence, with emphasis on the visual arts from antiquity to the present, including popular films.

CLAS 2300 HOLLYWOOD CLASSICS: THE ANCIENT WORLD IN FILM (3-0) Comparative study of contemporary films set in the ancient world and the literary sources on which they are based, with emphasis on the reception and reshaping of the Classical heritage by filmmakers to reflect the cultural values and interests of contemporary audiences.

CLAS 2303 THE CLASSICAL ROOTS OF ENGLISH VOCABULARY (3-0) The study of etymology (word origins) focusing on the large stock of English words derived from

ancient Greek and Latin prefixes, roots and suffixes. Recommended for students seeking to improve their general vocabulary and reading comprehension, and as preparation for graduate and professional school entrance exams.

CLAS 2307 WOMEN IN THE ANCIENT WORLD (3-0) Exploration of roles and images of women in ancient Greece and Rome, using a variety of primary (ancient) sources: literature, legal and medical texts, visual art, and inscriptions. Offered as CLAS 2307 and WOMS 2307. Credit will be granted only once.

CLAS 3310 INTRODUCTION TO GREEK CIVILIZATION (3-0) Ancient Greek culture through the death of Alexander the Great (323 B.C.). Topics covered include politics and society, literature, art, philosophy, and religion. Credit may not be received for both CLAS 2310 (as the course was previously numbered) and CLAS 3310.

CLAS 3320 INTRODUCTION TO ROMAN CIVILIZATION (3-0) Roman life and thought through the second century A.D. A broad cultural survey including politics and society, literature, art, philosophy, religion and law. Credit may not be received for both CLAS 2320 (as the course was previously numbered) and CLAS 3320.

CLAS 3323 TOPICS IN CLASSICAL MYTHOLOGY (3-0) Advanced study of Greek and/or Roman myths, with emphasis on the cultural context and methods of myth interpretation (anthropological, psychoanalytical, structuralist, etc.). May be repeated for credit with departmental permission.

CLAS 4335 TOPICS IN CLASSICAL STUDIES (3-0) Studies in the social, political, and cultural development of the ancient Greeks and Romans, including their influence on subsequent societies. May be repeated for credit with departmental permission.

CLAS 4391 CONFERENCE COURSE (3-0) Independent study in the preparation of a paper on a research topic; consultation with instructor on a regular basis. May be repeated for credit. Prerequisite: consent of the department and completion of or concurrent enrollment in a 3000 level course.

CLAS 4394 SENIOR THESIS/HONORS THESIS (3-0) A thesis or project completed during the senior year under the direction of a faculty member. Required of all students in the University Honors College.

COLA 1100 INTRODUCTION TO LIBERAL ARTS (1-0) Introduction and orientation to the College of Liberal Arts. Involves academic survival skills, individual success, and career possibilities. Explore new experiences. May be in format with student peer counselors or with faculty instructor. Elective only. Pass-Fail grades awarded.

COMM 1300 INTRODUCTION TO COMMUNICATION (3-0) Application of communication theories and principles to human communication; from the oral tradition to the printing press, photography, electronic media, and information technology.

COMM 2195 COMMUNICATION CAREER PRACTICUM (1-0) Individual experience

with direct supervision of a communication professional while working with approved profit and non-profit professional organizations. Individual conference should be arranged with supervising professor. See department for course qualifications. May be repeated up to a total of three times. Prerequisite: Department of Communication Majors only and permission of the department. Graded Pass/Fail.

COMM 2315 COMMUNICATION THEORY (3-0) Study of communication theories; interpersonal, organizational, mass media, and intercultural.

COMM 3300 COMMUNICATION TECHNOLOGY (3-0) Application of communication theory to mediated technology such as computers, the Internet, digital video and photography, and emerging technological developments in the communication field; uses, applications, software, and research strategies. Prerequisite: COMM 2315 and 60 hours earned.

COMM 3303 COMMUNICATION GRAPHICS (3-0) History, current practice, principles and trends in typography, imaging, pre-press and production, sheet finishing, bindery, paper and ink, logo design, advertising layout, publication design, and computer layout, design, and publishing. Prerequisite: COMM 2315 and 60 hours earned.

COMM 3310 COMMUNICATION LAW & ETHICS (3-0) Study of constitutional, statutory, administrative, and ethical governance of communication and the mass media, including journalism, the Internet, advertising, and film. Rights and responsibilities of citizens, professional communicators, and corporations are addressed. Prerequisite: COMM 2315 and 60 or more hours earned.

COMM 4191 READINGS IN COMMUNICATION (1-0) Readings addressing contemporary issues in communication. Proficiency in writing and research skills emphasized. Primarily for Communications majors. Prerequisite: 90 or more hours earned; 12 hours of 3000/4000 level in the department.

COMM 4300 COMMUNICATION RESEARCH (3-0) Introduction to communication research, design, and methodology. Readings and criticism in interpersonal, public address, and mass communication research; project required. Prerequisite: COMM 2315 and 60 hours earned.

COMM 4305 COMMUNICATION & SOCIETY (3-0) Readings and analysis of the role of communication in modern society; its impact on contemporary social, cultural, political, and intellectual trends. Prerequisite: COMM 2315 and 60 hours earned.

COMM 4318 MEDIA SALES AND PROMOTION (3-0) Study of broadcast rating services and terminology used to determine the audience of a particular radio or television operation. Demonstrates the importance of sales skills needed in the media, and the importance of account executives to radio and television stations. Emphasizes positioning media among competitors with respect to promotional and marketing plans designed to build and maintain an audience. Relationship of media ratings to

programming and sales. Credit will not be granted for both BCMN 3318 and COMM 4318. Prerequisite: COMM 2315 and 60 hours earned.

COMM 4325 COMMUNICATION HISTORY (3-0) Evolution and trends in forms of human communication; development of symbols and media technology with attention to their effects on society. Prerequisite: COMM 2315 and 60 hours earned.

COMM 4330 POLITICAL COMMUNICATION (3-0) Communication theories, principles, and strategies in modern political campaigns and events. Prerequisite: COMM 2315 and 60 hours earned.

COMM 4335 INTERCULTURAL COMMUNICATION (3-0) Examination of verbal and nonverbal barriers to effective intercultural communication such as ethnocentrism, stereotyping, prejudice, racism, proxemics, kinesics, haptics, and chronemics. Developing effective communication in intercultural contexts. Prerequisite: COMM 2315 and 60 hours earned.

COMM 4340 CORPORATE COMMUNICATION (3-0) 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. Prerequisite: COMM 2315 and 60 hours earned.

COMM 4391 CONFERENCE COURSE (3-0) Topic assigned on an individual basis, covering individual research or study in the designated areas. May be repeated when topic changes, for a maximum of six credit hours. Prerequisite: COMM 2315 and 60 or more hours earned, and permission.

COMM 4392 ADVOCACY IN APPLIED SETTINGS (3-0) An introduction to challenges individuals face when advocating for an issue, an idea, or even themselves. The goal of the course is to help students grasp concepts relevant to their internship experiences as Archer Fellows in Washington D.C. Enrollment is restricted to designated Archer Fellows. Prerequisite: POLS 2311 and POLS 2312.

COMM 4393 COMMUNICATION TOPICS (3-0) Seminar in interdisciplinary topics. May be repeated when topic changes, for a maximum of six credit hours. Prerequisite: COMM 2315 and 60 or more hours earned.

COMM 4394 HON THESIS / SENIOR PROJECT (0-0) Required of all students in the University Honors College. During the senior year, the student must complete a thesis or a project under the direction of a faculty member in the major department.

COMS 0185 FORENSICS (0-4) Preparation for and participation in intercollegiate and intersquad forensic activities. Students engage in supervised research, development of debate skills and individual speaking activities. Prerequisite: permission.

COMS 1301 FUNDAMENTALS OF SPEECH (3-0) Stress on development of the individual's speaking abilities and confidence in a variety of speaking

situations.

COMS 1302 VOICE AND DICTION (3-0) Designed to improve the quality of the individual's speech. Enunciation, articulation, pronunciation, and the fundamentals of voice production. The phonetic alphabet as a visual means of teaching auditory differences.

COMS 2304 GROUP COMMUNICATION PRINCIPLES (3-0) Principles and practice of effective interaction within small groups including meeting planning, agenda setting, conflict management, and decision making.

COMS 2305 BUSINESS AND PROFESSIONAL COMMUNICATION (3-0) Insight into communication skills. Designed to give the student experience in interviewing, business presentations, organizational reports, and the relationship of visual and oral presentations to business.

COMS 3302 PROFESSIONAL AND TECHNICAL COMMUNICATION (3-0) Theory and practice in written and oral presentations with an emphasis on business and technical professions. Prerequisite: 30 or more hours earned.

COMS 3305 ARGUMENTATION AND DEBATE (3-0) An advanced course in the development of effective argument. Research, presentation, and criticism of logic-based advocacy. Prerequisite: six hours of COMS (formerly SPCH).

COMS 3307 SPEECH ACTIVITIES (3-0) Theory and practice of extracurricular activities in speech.

COMS 3309 ORGANIZATIONAL COMMUNICATION (3-0) Communication functions within formally structured social systems such as business, government, and education. Emphasis on conceptual schemes for conducting analysis of training programs in organizational communication. Prerequisite: six hours of COMS (formerly SPCH).

COMS 3310 GROUP COMMUNICATION THEORY (3-0) Characteristics of group communication including group function and formation, norms, cohesion, problem solving, leadership, and ethics. Prerequisite: COMS (formerly SPCH) 2304.

COMS 3312 BACKGROUNDS OF PUBLIC ADDRESS (3-0) Traditional works pertinent to theories of communication. Emphasis on discovering the traditional bases shared by empirical and critical studies of rhetorical communication. Prerequisite: six hours of COMS (formerly SPCH) or permission.

COMS 3315 COMMUNICATION FOR EDUCATORS (3-0) Basic concepts, theories, research and processes relevant to formal and informal instructional situations. Units of study will focus on intrapersonal, interpersonal, small group, and presentational communication.

COMS 3316 COMMUNICATION IN HUMAN RELATIONS (3-0) The human communication process within the social, business, and family context. Theories and principles of interpersonal communication and perception of self and others. Prerequisite: six hours of COMS (formerly SPCH).

COMS 3320 INTERVIEW PRINCIPLES (3-0) Theory and practice in interviewing as it relates to information-gathering, questioning, and response analysis in probing, persuasive, employment, and survey interviews; practical and legal application in employment interviews; preparation of resume and cover letter. Prerequisite: six hours of COMS (formerly SPCH).

COMS 3321 ORAL INTERPRETATION OF PROSE (3-0) The fundamental principles of oral interpretation and techniques of interpretation. Stresses background research concerning author and type of material. Prose is emphasized. Prerequisite: six hours of COMS (formerly SPCH) or THEA.

COMS 3322 ORAL INTERPRETATION OF TEXTS (3-0) Traditional principles of oral interpretation, as well as contemporary performance approaches, will be developed. Primary literary emphasis will be on poetry and drama. Prerequisite: six hours of COMS (formerly SPCH) or THEA.

COMS 3323 ORAL INTERPRETATION OF CHILDREN'S LITERATURE (3-0) Traditional oral interpretation principles and performance techniques as applied to various genres of children's literature. Prerequisite: six hours of COMS (formerly SPCH) or THEA.

COMS 4300 PERSUASIVE COMMUNICATION (3-0) Analysis of the means by which persuasive communication affects individuals and society. Extensive reading of theories of techniques of persuasion. Study of the adaptation of motivational appeals, structural strategies, and other persuasive techniques in interpersonal and public contexts. Prerequisite: COMS (formerly SPCH) 1301.

COMS 4302 MODERN PUBLIC ADDRESS (3-0) Analysis of major 20th-century forms of public address and speakers. Application of various models for criticism and public address. Prerequisite: COMS 1301 (formerly SPCH).

COMS 4315 BUSINESS PRESENTATIONS (3-0) The role of internal and external informative and persuasive presentations in business organizations. Extensive readings and practice with an emphasis on research, development, organization, and critical evaluation of oral and visual presentations. Prerequisite: COMS (formerly SPCH) 1301 or 2305 or 3302.

COMS 4320 MANAGERIAL COMMUNICATION (3-0) Analysis of the role of the business manager; readings in research and theory with emphasis on problem-solving and motivation. Prerequisite: COMS (formerly SPCH) 3309 or permission.

COMS 4321 READERS THEATRE (3-0) Readers interpret various kinds of literature for an audience. Analysis and criticism of literature are stressed. Prerequisite: COMS (formerly SPCH) 3321 or 3322 or 3323.

COMS 4322 COMMUNICATION TRAINING AND DEVELOPMENT (3-0) The process of analyzing communication problems and providing training skills for businesses and organizations. Emphasizes practical knowledge of facilitating skill improvement in verbal and nonverbal communication.

Prerequisite: COMS (formerly SPCH) 1301 and 2305.

COMS 4391 COMMUNICATION TOPICS (3-0) Topics assigned on an individual basis, covering research or study in the designated areas. May be repeated when topic changes, for a maximum of six credit hours. Prerequisite: COMM 2315 and 60 or more hours earned and permission.

COMS 4393 COMMUNICATION TOPICS (3-0) Special studies in speech. Topics will vary from semester to semester. May be repeated once when topics vary. Prerequisite: COMM 2315, 60 hours earned, and permission.

COMS 4395 PROFESSIONAL INTERNSHIP (10-0) Individual research while working with business and industry. Individual conference to be arranged. Prerequisite: COMM 2315, 60 or more hours earned, and permission. Graded Pass/Fail.

CRCJ 2334 INTRODUCTION TO THE CRIMINAL JUSTICE SYSTEM (3-0) An overview of the entire criminal justice system; history and development, law enforcement, prosecution and defense, courts and trial processes, and corrections. Formerly CRCJ 3334; credit will not be granted for both 3334 and 2334.

CRCJ 2335 ETHICS AND THE CRIMINAL JUSTICE SYSTEM (3-0) An examination of ethical issues confronted by criminal justice personnel and organizations. The course explores the standards and professional responsibilities of criminal justice practitioners, including law enforcement officers, officers of the courts, and juvenile and corrections officials. Prerequisite: CRCJ 2334.

CRCJ 2340 CRIMINAL INVESTIGATION (3-0) Fundamentals of criminal investigation, including theory and history, conduct at crime scenes, sources of information, collection and preservation of evidence, case and trial preparation. Formerly CRCJ 2314; credit will be given for CRCJ 2340 or 2314, but not both.

CRCJ 2350 INTRODUCTION TO LAW ENFORCEMENT (3-0) An overview of the historical and organizational development of police systems. Emphasis is placed on the function and organizational structure of law enforcement agencies and how these agencies interface with other components of the criminal justice system. Prerequisite: CRCJ 2334.

CRCJ 3300 THEORETICAL CRIMINOLOGY (3-0) The methodological and theoretical perspectives of the social and biological sciences as integrated into the criminal justice system.

CRCJ 3307 INTRODUCTION TO SECURITY SYSTEMS (3-0) Historical development of private security, its form and practice in modern society. Emphasis on three major divisions within the field: industrial, commercial and governmental security organizations and issues.

CRCJ 3336 POLICE MANAGEMENT AND ADMINISTRATION (3-0) Examines the principles of administration, management, politics and leadership with emphasis on their applicability to police planning, organization, direction, control and

personnel management.

CRCJ 3337 ADVANCED CRIMINAL PROCEDURE (3-0) The processes involved in the criminal justice system; the rules of evidence; the laws of arrest, search and seizure; and the judicial process from offense to conviction.

CRCJ 3338 JUVENILE JUSTICE SYSTEMS (3-0) Organization, processes, and functions of the juvenile justice system in the United States, its historical antecedents, and contemporary challenges. Consideration also given to sociopolitical factors in juvenile justice decision-making.

CRCJ 3340 CRIMINAL JUSTICE STATISTICS (3-0) An introduction of basic concepts and techniques necessary for a preliminary and proficient understanding of criminal justice research. Focus is on analyzing and interpreting research findings including types of data, central tendency, and both descriptive and inferential statistics. Prerequisite: CRCJ 2334.

CRCJ 3350 INTRODUCTION TO RESEARCH METHODS IN CRIMINOLOGY AND CRIMINAL JUSTICE (3-0) This course introduces students to the research methodology used in criminological research. Emphasis is on the development of a general understanding of why and how research can be and is conducted in the field of criminology and criminal justice. Other dimensions of research are discussed including the nature of scientific thought, the link between research methods and criminological theory, and the various ethical issues concerning research in the field of criminology.

CRCJ 3370 INTRODUCTION TO FORENSICS (3-0) This course provides an overview of forensic science. Emphasis is on crime scene investigation, physical evidence, organic and inorganic analysis, forensic toxicology and use of DNA in investigations.

CRCJ 3380 RACE, CRIME, AND JUSTICE (3-0) An examination of race in the context of the criminal justice system. Emphasis is on social construction of crime; and the treatment of racial minorities as victims and offenders by law enforcement, courts, and corrections. Prerequisite: CRCJ 2334.

CRCJ 3385 WOMEN AND CRIME (3-0) This course examines criminology and criminal justice issues as they relate specifically to women. The three major areas of coverage include (1) women and girls as victims of crime, (2) women and girls as criminal offenders; and (3) women working in the criminal justice system. Offered as CRCJ 3385 and WOMS 3385; credit will be granted only once.

CRCJ 3390 VICTIMOLOGY (3-0) The relationship between victims of crime and the criminal justice system. Includes an analysis of the characteristics of crime victims, victim reporting and nonreporting patterns, treatment of victims by the various segments of the criminal justice system, victim assistance programs, and the issue of compensation and/or restitution for victims of crime.

CRCJ 3395 DRUG USE AND ABUSE (3-0) An examination of the description, classification, and analysis of the problem of illegal drug use. Focus is on current drug

policies in the United States, and a comparison of worldwide drug policies, and critical analysis of each. Prerequisite: CRCJ 2334.

CRCJ 4191 CONFERENCE COURSE (0-0) Directed individual study; research and study on a topic agreed upon by instructor and student. No more than six hours credit will be granted for conference courses in criminal justice. Prerequisite: permission of the instructor.

CRCJ 4291 CONFERENCE COURSE IN CRIMINAL JUSTICE (0-0) Directed individual study; research and study on a topic agreed upon by instructor and student. No more than six hours credit will be granted for conference courses in criminal justice. Prerequisite: permission of the instructor.

CRCJ 4301 THE AMERICAN JUDICIAL SYSTEM (3-0) Federal, state, and local judicial systems, with special emphasis on state trial courts having criminal jurisdiction. Court structure and function, court management, and judicial behavior.

CRCJ 4309 PRIVATE SECURITY ADMINISTRATION (3-0) The essentials of governmental and proprietary security development and program planning; including personnel recruitment and training, developing and conducting security audits, records and information protection, and general applications of modern management techniques to security organization. Prerequisite: CRCJ 3307.

CRCJ 4310 ADVANCED LEGAL AND TECHNICAL WRITING (3-0) Designed to develop or enhance skills in varied writing styles in the administration and study of criminal justice. Legal and technical writing requirements are presented with emphasis on purpose, form and content. Specific focus is on technical reports required by law enforcement, corrections, and community corrections as well as the drafting and reporting of statutory and case law.

CRCJ 4315 CRIMINAL CAREERS AND BEHAVIOR SYSTEMS (3-0) Study and analysis of criminal syndicates, corporate crime, computer crime, criminal corporations, organized crime, and transnational criminal operations.

CRCJ 4320 FORENSIC PSYCHOLOGY (3-0) An examination of relationships between psychology and the processes of the American judicial system. Addresses criminal responsibility, criminal competence, civil competence, civil commitment, court procedures, jury selection, eyewitness testimony, and mental health law. Prerequisite: CRCJ 2334 and CRCJ 4301.

CRCJ 4325 GANGS (3-0) An examination of historical and contemporary street and correctional institutional gangs. Addresses the nature and definition of gangs, types and diversity of membership of gangs, theoretical explanations, criminal and deviant behavior, law enforcement responses, intervention and prevention strategies, and public policy issues. Prerequisite: CRCJ 2334.

CRCJ 4332 COMMUNITY CORRECTIONS (3-0) Evaluation of practices, issues, and trends in community corrections. Emphasis is on the de-institutionalization movement,

probation, parole, intermediate punishments, and other community alternatives to incarceration.

CRCJ 4333 INSTITUTIONAL CORRECTIONS (3-0) Examination and evaluation of practices, issues, and trends in institutional corrections. Emphasis is on administration, organization, and effectiveness of incarceration.

CRCJ 4340 FORENSIC DEATH INVESTIGATION (3-0) An exploration of death investigations including an overview of protocols utilized to investigate a death as well as autopsy perspectives. Focus is on the numerous causes of death and the working relationship of police investigators, death investigators, forensic pathologists, and forensic laboratories. Prerequisite: CRCJ 3370.

CRCJ 4345 CRIME AND THE CRIMINAL JUSTICE SYSTEM IN THE MEDIA (3-0) An examination of crime and the criminal justice system as depicted in the media; special emphasis on the roles of the media in influencing individual and societal perceptions of, and reactions to, crime and the criminal justice system.

CRCJ 4352 TERRORISM AND MASS VIOLENCE (3-0) Examination of historic and current trends in civil disruption from domestic/international perspectives. Considers literature and philosophical basis of political terrorism; costs of terrorism; future trends and deterrence by civil or military intervention. Formerly CRCJ 3352; credit will not be granted for both 4352 and 3352.

CRCJ 4355 ORGANIZED CRIME: NATIONAL AND INTERNATIONAL (3-0) An examination of organized crime in the United States and internationally, including history, development, ethnic links, impact upon society and the economy, and international cooperation aimed at eradicating the occurrence and proliferation of this form of criminality. Prerequisite: CRCJ 2334.

CRCJ 4365 CAPITAL PUNISHMENT (3-0) An examination of historic and current trends in capital punishment. Considers the literature and philosophical basis of capital punishment, the costs of capital punishment, and future trends of capital punishment. Provides an in-depth examination of capital punishment from a criminal justice policy perspective.

CRCJ 4370 ACTUAL INNOCENCE AND WRONGFUL CONVICTIONS (3-0) An examination of reasons for wrongful convictions, the law and procedure of exonerations, and how to investigate claims of actual innocence. Prerequisite: Consent of instructor.

CRCJ 4371 INNOCENCE PROJECT PRACTICUM (3-0) A practicum that allows students to work with representatives of the Innocence Project of Texas to investigate claims by incarcerated inmates that they have been wrongfully convicted. Prerequisite: CRCJ 4370 and consent of instructor.

CRCJ 4380 COMPARATIVE CRIMINAL JUSTICE SYSTEMS (3-0) An overview of criminal justice systems in other countries. Includes an intensive study and analysis of materials on their law enforcement,

judicial, and corrections components; review of comparative studies on a variety of criminal justice topics.

CRCJ 4386 TOPICS IN CORRECTIONS (3-0) May be repeated for credit as the topics vary, but credit will not be granted for more than 12 semester hours of CRCJ-prefix topics courses without permission of advisor.

CRCJ 4387 TOPICS IN CRIME AND CRIMINOLOGY (3-0) May be repeated for credit as the topics vary, but credit will not be granted for more than 12 semester hours of CRCJ-prefix topics courses without permission of advisor.

CRCJ 4388 TOPICS IN LAW AND JUDICIAL PROCESSES (3-0) May be repeated for credit as the topics vary, but credit will not be granted for more than 12 semester hours of CRCJ-prefix topics courses without permission of advisor.

CRCJ 4389 TOPICS IN LAW ENFORCEMENT AND PRIVATE SECURITY (3-0) May be repeated for credit as the topics vary, but credit will not be granted for more than 12 semester hours of CRCJ-prefix topics courses without permission of advisor.

CRCJ 4390 INTERNSHIP IN CRIMINAL JUSTICE (3-0) Provides the student with an opportunity to apply academic experience to practical situations by serving for a specified number of hours as participant-observer in a criminal justice agency. May be taken for a total of six semester hours. Internships must be arranged with internship supervisor in the semester prior to enrolling for this course. Prerequisite: permission of the instructor.

CRCJ 4391 CONFERENCE COURSE IN CRIMINAL JUSTICE (0-0) Directed individual study; research and study on a topic agreed upon by instructor and student. No more than six hours credit will be granted for conference courses in criminal justice. Prerequisite: permission of the instructor.

CRCJ 4394 HONORS THESIS/SENIOR PROJECT (0-0) Required of all students in the University Honors College. During the senior year, the student must complete a thesis or a project under the direction of a faculty member in the major department.

CRIJ 3315 LEGAL ASPC EVID (3-0)

CRIJ 3331 LEGAL ASPC CORR (3-0)

CRIJ 4300 FOREN DNA-ELPAS (3-0)

CRIJ 4312 LAW ENFORCE SUP (3-0)

CRIJ 4313 ISSUES LAW ENFC (3-0)

CRIJ 4341 CORR CSWK&CSLG (3-0)

CRIJ 4362 SPECIAL TOPICS (3-0)

CRIJ 4363 GANGS / GANGBEHVR (0-0) GANGS / GANGBEHVR

CRIJ 4370 SR SEM CJ (3-0)

CRIM 3340 CRIM JUS ADMN (3-0)

CRIM 3365 JUV DEL JUSTICE (3-0)

CRIM 4321 PROBAT & PAROLE (3-0)

CRIM 4332 THRY CRIM BEHVR (3-0)

CRIM 4370 SENIOR SEMINAR (3-0)

CRIM 4381 ETHICS (3-0)

CRIM 4382 COMMNTY POLICNG (3-0)

CSE 1104 INTRODUCTION TO ENGINEERING (1-0) Introduction to basic engineering concepts. Students will become familiar with engineering and its many sub-fields, ethical responsibilities, creativity and design. Corequisite: CSE 1105.

CSE 1105 INTRODUCTION TO COMPUTER SCIENCE AND ENGINEERING (1-2) Introduction to basic engineering concepts. Opportunities are provided to develop skills in oral and written communication, and department-specific material. Case studies are presented and analyzed. Corequisite: CSE 1104.

CSE 1301 COMPUTER LITERACY (2-3) For those persons having an interest in finding out what a computer is (and is not), the types of problems suited for computers, and how to utilize a computer to solve problems. The organization and characteristics of computers; application of commercial software such as word processors, spreadsheets, database packages, and communications packages.

CSE 1310 INTRODUCTION TO COMPUTERS & PROGRAMMING (3-0) An introduction to the computer, to the algorithmic process, and to programming using basic control and data structures, using a procedural language. Prerequisite: MATH 1302 (or concurrently).

CSE 1311 INTRODUCTORY PROGRAMMING FOR ENGINEERS & SCIENTISTS (3-0) An introduction to the computer, to the algorithmic process, and to programming using basic control and data structures. Prerequisite: MATH 1323 (or concurrently).

CSE 1320 INTERMEDIATE PROGRAMMING (3-0) Programming concepts beyond basic control and data structures. Emphasis is given to data structures including linked-lists and trees as well as modular design consistent with software engineering principles. Prerequisite: CSE 1104, CSE 1105, CSE 1310 (or CSE 1311), and MATH 1323 (or concurrently).

CSE 1325 OBJECT-ORIENTED PROGRAMMING (3-0) Program design and implementation using Java. Object-oriented concepts, basic Unified Modeling Language (UML) modeling, collection classes, generics, reflection, reusability, and introduction to design patterns. Projects involve extensive programming and may include user interfaces and multithreading. Prerequisite: CSE 1320.

CSE 1392 SPECIAL TOPICS (3-0) New developments in the field of computer science and engineering. Topic may vary from semester to semester. May be repeated for credit when topic changes. Departmental approval required in advance to use for degree credit. Prerequisite: consent of advisor.

CSE 2140 DIGITAL LOGIC LAB (0-3) Laboratory experiences for CSE 2340. Prerequisite: CSE 2340 (or concurrently).

CSE 2312 COMPUTER ORGANIZATION & ARCHITECTURE (3-0) The assembly/machine language programmer's view of a digital computer including processor and memory organization, instruction sets, and addressing modes. Programming in a current generation assembly language. Assemblers and the assembly process. Prerequisite: CSE 1320.

CSE 2315 DISCRETE STRUCTURES (3-0) Propositional and predicate logic, mathematical proof techniques, sets, combinatorics, functions and relations, graphs, and graph algorithms. Prerequisites: CSE 1320 and MATH 1426.

CSE 2320 ALGORITHMS & DATA STRUCTURES (3-0) Design and analysis of algorithms with an emphasis on data structures. Approaches to analyzing lower bounds on problems and upper bounds on algorithms. Classical algorithm design techniques including algorithms for sorting, searching, and other operations on data structures such as hash tables, trees, graphs, strings, and advanced data structures, dynamic programming and greedy approaches. Prerequisite: CSE 1325 and CSE 2315.

CSE 2321 DATA STRUCTURES FOR NON-ENGINEERS (3-0) Design and analysis of data structures including stacks, queues, hash tables, trees, and graphs. Searching and sorting techniques. Prerequisite: CSE 1320.

CSE 2340 INTRODUCTION TO DIGITAL LOGIC (3-0) Analysis, design and testing of combinational and sequential logic circuits. Topics include Boolean algebra, logic circuit minimization techniques, synchronous sequential circuit design, algorithmic state machine design, design of arithmetic/logic and control units. Computer aided design tools are utilized throughout the course. Prerequisite: CSE 2312 (or concurrently), CSE 2315 and EE 2440.

CSE 2392 SPECIAL TOPICS (3-0) New developments in the field of computer science and engineering. Topic may vary from semester to semester. May be repeated for credit when topic changes. Departmental approval required in advance to use for degree credit. Prerequisite: consent of advisor.

CSE 3302 PROGRAMMING LANGUAGES (3-0) Introduction, analysis, and evaluation of the important concepts found in a variety of programming languages. Formalisms useful in specifying language syntax and semantics; programming language paradigms such as algorithmic, functional, logic, and object-oriented. Prerequisite: CSE 2320.

CSE 3310 FUNDAMENTALS OF SOFTWARE ENGINEERING (3-0) Software engineering principles, processes, and techniques; software development approaches focusing on functional analysis and functional design methods. Configuration management, implementation strategies, and testing. Team project. Prerequisite: CSE 1325, and either CSE 2320 or 2321.

CSE 3315 THEORETICAL CONCEPTS IN COMPUTER SCIENCE AND ENGINEERING (3-0) Selected theoretical concepts including regular and context free

languages, finite state and pushdown automata, Turing machines, computability, and NP-completeness. Prerequisite: CSE 2315.

CSE 3316 PROFESSIONAL PRACTICES (3-0) Contemporary social aspects and responsibilities of computing in a global, societal context. Lifelong learning goals and resources. Entrepreneurship and intellectual property. Project involving written and oral communication. Corequisite: CSE 3310. Prerequisites: COMS 3302, IE 3301.

CSE 3320 OPERATING SYSTEMS (3-0) Functions and components of an operating system, including process synchronization, job scheduling, memory management, file systems protection, and deadlocks. Related system software, such as loaders, linkers, assemblers, and windowing systems. Prerequisite: CSE 2312, CSE 2320, and IE 3301 or MATH 3313 (or concurrently).

CSE 3330 DATABASE SYSTEMS AND FILE STRUCTURES (3-0) Database system architecture; file structures for databases, including indexing hashing, and B+-trees; the relational model and algebra; the SQL database language; Entity-Relationship data modeling; functional dependencies and basic normalization. Prerequisite: CSE 2320 or 2321.

CSE 3340 COMPUTATIONAL METHODS IN COMPUTER ENGINEERING (3-0) Study of the mathematical foundations for computer engineering. The course will cover selected topics from probability and queuing theory, approximation and numerical methods, and optimization. Includes discussion of applications in such areas as databases, human-machine interface, robotics, networks, security and vision. Prerequisites: CSE 2320, IE 3301, MATH 3319.

CSE 3392 SPECIAL TOPICS (3-0) New developments in the field of computer science and engineering. Topic may vary from semester to semester. May be repeated for credit when topic changes. Departmental approval required in advance to use for degree credit. Prerequisite: consent of advisor.

CSE 3442 EMBEDDED SYSTEMS I (3-3) Design of microcomputer based systems: microcomputer programming, component and system architectures, memory interfacing, parallel and serial input/output (I/O) interfacing, analog to digital (A/D) and digital to analog (D/A) conversion, and typical applications. Prerequisite: CSE 2140, CSE 3320 (or concurrently).

CSE 4191 INDIVIDUAL PROJECTS (1-0) Special problems in computer science and engineering on an individual basis. Topics may change from semester to semester. May be repeated for credit. Departmental approval must be obtained in advance for degree credit. Prerequisite: consent of instructor and department chairperson.

CSE 4303 COMPUTER GRAPHICS (3-0) Theory and practice for the visual representation of data by computers including display devices, output primitives, planes and curved surfaces, two- and three-dimensional transformations, parallel and perspective viewing, removal of hidden lines and surfaces, illumination models, ray

tracing, radiosity, color models, and computer animation. Prerequisite: CSE 2320, and MATH 3319 or MATH 3330.

CSE 4305 COMPILERS FOR ALGORITHMIC LANGUAGES (3-0) Review of programming language structures, translation, and storage allocation. Theory and practice of compilers and issues in compiler construction including parsing, intermediate code generation, local optimization problems such as register allocation, data-flow analysis, and global optimization. Prerequisite: CSE 3302.

CSE 4308 ARTIFICIAL INTELLIGENCE I (3-0) An introduction to the field of artificial intelligence studying basic techniques such as heuristic search, deduction, learning, problem solving, knowledge representation, uncertainty reasoning and symbolic programming languages such as LISP. Application areas may include intelligent agents, data mining, natural language, machine vision, planning and expert systems. Prerequisite: CSE 3302 & 3315.

CSE 4309 ARTIFICIAL INTELLIGENCE II (3-0) 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 4308 and IE 3301.

CSE 4311 OBJECT-ORIENTED SOFTWARE ENGINEERING (3-0) Study of an agile unified methodology and its application to object-oriented software development. Topics include requirements acquisition, use case derivation, modeling and design of interaction behavior and state behavior, introduction to design patterns, derivation of design class diagrams, implementation considerations and deployment. Team project. Prerequisite: CSE 3310.

CSE 4313 INTRODUCTION TO SIGNAL PROCESSING (3-0) Examines models for presentation and processing of digital signals. Sampling theorem, correlation and convolution, time and frequency analysis of linear systems, Fourier transform, Z-transform, design of digital filters structures for discrete time systems. Prerequisite: MATH 2425 and senior standing.

CSE 4316 COMPUTER SYSTEM DESIGN PROJECT I (2-3) Analysis and design of an industry-type project that involves hardware and software components to meet desired needs within realistic constraints and standards. The project is to be completed in CSE 4317 the following semester. Multidisciplinary teams of CSE 4316 students are required to develop, review, and present problem definition, project planning, requirements formulation, and design specification.Corequisite: CSE 3316. Prerequisite: CSE 3310, CSE 3320, CSE 3322. In addition, CSE 3442 and at least one of CSE 4340, 4342, and 4360 for CpE majors.

CSE 4317 COMPUTER SYSTEM DESIGN PROJECT II (2-3) Implementation, integration, quality assurance through peer review and testing, and deployment of the project designed in CSE 4316; oral presentation, documentation and project demonstration. Prerequisite: CSE 4316 and

continuation with the same team.

CSE 4319 MODELING AND SIMULATION (3-0) Techniques for system modeling and simulation of stochastic and knowledge-based systems. Modeling methods, model validation and verification procedures, and steady state solution techniques. Prerequisite: CSE 3310 and IE 3301.

CSE 4321 SOFTWARE TESTING & MAINTENANCE (3-0) Study of software quality assurance, software testing, and software maintenance processes, methods and techniques including formal review techniques, software verification, validation, and testing, types of software maintenance, maintenance activities, and regression testing. Prerequisite: CSE 3310.

CSE 4322 SOFTWARE PROJECT MANAGEMENT (3-0) Introduction to software project management. Issues include effort estimation and costing, project planning and scheduling, option analysis, software quality assurance, and formal technical reviews. Prerequisite: CSE 3310.

CSE 4323 QUANTITATIVE COMPUTER ARCHITECTURE (3-0) Pipelined processors, parallel processors including shared and distributed memory, multicore, Very Long Instruction Word (VLIW) and graphics processors, memory and cache design, computer peripherals, and computer clusters. Prerequisite: CSE 3320 or consent of instructor.

CSE 4331 DATABASE IMPLEMENTATION AND THEORY (3-0) Review of the relational model and algebra; relational calculus; relational database design theory; advanced data modeling concepts; object-oriented and object-relational databases; database system implementation techniques, including concurrency control, recovery, atomic commitment, and query processing and optimization, database security; introduction to advanced concepts, such as active, deductive, spatial, temporal, multimedia and distributed databases. Prerequisite: CSE 3330.

CSE 4340 MOBILE SYSTEMS ENGINEERING (3-0) Mobile devices including handheld computers, sensor nodes and smart phones, operating systems, middleware and communication in mobile environments. Applications of mobile systems in health, entertainment, security and other areas. Prerequisites: CSE 3340 and 3442.

CSE 4342 EMBEDDED SYSTEMS II (2-3) Advanced course in design of microcomputer-based systems. Emphasis is on the application of state-of-the-art microprocessors, microcomputers, and other LSI (large-scale integration) and VLSI (very-large-scale integration) components to real-time, interactive, and online problems. Prerequisite: CSE 3442.

CSE 4344 COMPUTER NETWORK ORGANIZATION (3-0) Design and analysis of computer networks. Emphasis on the OSI architecture but discusses other schemes (e.g., ARPAnet). Data link control, local networks, protocols/architectures, network access protocols, transport protocols, internetworking, and ISDN. Prerequisite: CSE 3320.

CSE 4346 ADVANCED COMPUTER NETWORKS (3-0) Design and engineering issues in networking. Topics include congestion control, scheduling, multicast routing, connection-oriented switching, DNS, bind, domain name space issues, flow control, traffic management, and admission control. Prerequisite: CSE 4344.

CSE 4348 MULTIMEDIA SYSTEMS (3-0) A hands-on approach to the study of principles underlying multimedia systems. Topics include multimedia systems design, multimedia hardware and software, issues in effective representation, processing, and communication of multimedia data such as text, graphics, audio, images, and video. Prerequisite: CSE 3320.

CSE 4351 PARALLEL PROCESSING (3-0) Theory and practice of parallel processing, including characterization of parallel processors, models for memory, algorithms, and interprocess synchronization. Issues in parallelizing serial computations, efficiency and speedup analysis. Programming exercises using one or more concurrent programming languages, on one of more parallel computers. Prerequisite: CSE 3302 and CSE 3322, or consent of instructor.

CSE 4360 AUTONOMOUS ROBOT DESIGN AND PROGRAMMING (2-3) 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. Course work includes individual and group projects involving the building and programming of simulated and real robots. Prerequisite: CSE 2320 and CSE 3320.

CSE 4361 SOFTWARE DESIGN PATTERNS (3-0) In-depth study of software design patterns including description of patterns, design principles and techniques used by patterns as well as application of patterns to solving practical design problems. Team project. Prerequisite: CSE 3310.

CSE 4391 INDIVIDUAL PROJECTS (3-0) Special problems in computer science and engineering on an individual basis. Topics may change from semester to semester. May be repeated for credit. Departmental approval must be obtained in advance for degree credit. Prerequisite: consent of instructor and department chairperson.

CSE 4392 SPECIAL TOPICS (3-0) New developments in the field of computer science and engineering. Topic may vary from semester to semester. May be repeated for credit when topic changes. Departmental approval required in advance to use for degree credit. Prerequisite: consent of instructor.

CTEC 2300 INTERNET COMMUNICATION (3-0) Introduction to the Internet including communication context and theory, advanced search strategies, virtual community, online security, legal and ethical issues, social implications, basics of Web design and publishing, basic technology literacy concepts.

CTEC 2350 INTRODUCTION TO COMMUNICATION TECHNOLOGY (3-0) Students will investigate the design, implementation, and use of communication

technology and explore relevant sociological and psychological issues. Course will also provide an introduction to theoretical and conceptual frameworks related to the growing field of computer-mediated communication and human-computer interaction. Previously offered as COMM 2350; credit will not be granted for both.

CTEC 3320 VISUAL COMMUNICATIONS & THE INTERNET (3-0) Study of the principles of visual communication and image building as related to the internet: principles of animation, cross-platform design, safe color pallets, graphic and photographic file formats, graphics generation, and photo scanning. Previously listed as COMM 4307 or COMM 3320 ; credit will only be given for one of the following: CTEC 3320, COMM 4307, or COMM 3320. Prerequisite: CTEC 2350 or meet UTA computer competency requirement.

CTEC 3350 WEB SITE COMMUNICATION (3-0) Applying a user needs assessment approach for creating communicative strategies via interactive web site designs. The study of usability theory and online rhetoric will help students to understand and implement interface design strategies for the web. Scripting and Cascading Style Sheet will be incorporated to facilitate style and interactivity. Previously listed as COMM 3305 or COMM 3350; credit will only be offered for one of the following: CTEC 3350, COMM 3305, or COMM 3350. Prerequisite: CTEC 2350 or meet UTA computer competency requirement.

CTEC 4309 INTERNET MARKETING COMMUNICATION (3-0) Study of the use of communication and information technology in the areas of electronic commerce and marketing communication. Examines the features and design of technology and the resulting social and economic impact on a networked society. Discuss research strategies, usage trends, and current development. Previously listed a COMM 4309; credit will not be offered for both. Prerequisite: COMM 3300 and one of the following: ADVT 4300, CTEC 3350, PREL 3355, or COMM 4318.

CTEC 4321 DIGITAL COMMUNICATION MANAGEMENT (3-0) Grounded in corporate and organizational communication theories, students will study the methods to design, analyze, and evaluate the organization and structure of information and interactive digital communication. Students will also critically examine communication technology applications needed to effectively service user needs. Previously offered as COMM 4321; credit will not be offered for both. Prerequisite: JOUR 1345, CTEC 2350, CTEC 3350.

CTEC 4323 ADVANCED HUMAN COMPUTER INTERACTION (3-0) Application of a user-centered design approach to the conceptualization, design and creation of interactive digital media for Internet-based applications and stand-alone kiosks. Through an iterative design cycle, students will explore techniques for manipulation and presentation of visual and audio elements, with the goal of optimizing the end-user experience in a variety of communication contexts. Previously offered as COMM 4323; credit will not be offered for both. Prerequisite: (JOUR 1345, CTEC 2350, 3320, 3350) or (JOUR 1345, BCMN 2357,

2358, and 60 credit hours earned).

CTEC 4331 INTERACTIVE WEB COMMUNICATION (3-0) Conceptualization and design of interactive web sites applying user-centered design principles and current communication technology to enhance interface usability and web communication effectiveness. Prerequisite: JOUR 1345, CTEC 2350, 3320, 3350.

CTEC 4350 ADVANCED WEBSITE COMMUNICATION (3-0) Applying theories of communication, organization, human/computer interaction, user centered design, and information architecture for the advanced study of effective communication over the Internet, including web site design, implementation, and evaluation. Previously listed as COMM 4327 or COMM 4350; credit will only be offered for one of the following: CTEC 4350, COMM 4327, or COMM 4350. Prerequisite: COMM 3300, CTEC 2350, 3320, 3350, 4309, and one of the following: CTEC 4321, 4323, or 4331.

CTEC 4391 CONFERENCE COURSE (3-0) Topic assigned on an individual basis, covering individual research or study in the designated areas. May be repeated when topic changes, for a maximum of six credit hours. Prerequisite: COMM 2315 and 60 or more hours earned and permission of the department.

CTEC 4393 SPECIAL TOPICS (3-0) Special studies in communication technology. Topic varies from semester to semester. May be repeated when topic changes, for a maximum of six credit hours. Prerequisite: COMM 2315 and 60 or more hours earned and permission.

CTEC 4395 PROFESSIONAL INTERNSHIP (10-0) Individual research while working with business and industry. Individual conference to be arranged. Prerequisite: COMM 2315, 60 or more hours earned and permission. Graded P/F.

DNCA 0130 COUNTRY & WESTERN DANCE (0-2)

DNCA 0131 BALLROOM DANCE (0-2)

DNCA 0132 MODERN DANCE (0-2)

DNCA 0133 SWING DANCE (0-2)

DNCA 0134 TAP DANCE (0-2)

DNCA 0135 BALLET (0-2)

DNCA 0136 JAZZ DANCE (0-2)

DNCA 0139 DANCE PERFORMANCE (0-2) Audition Required.

DNCA 1232 INTERMEDIATE MODERN DANCE (0-3)

DNCA 1235 INTERMEDIATE BALLET (0-3)

DNCA 1236 INTERMEDIATE JAZZ DANCE (0-3)

DNCE 1300 DANCE APPRECIATION (3-0) Designed to develop an awareness and appreciation of dance in its artistic, social, and cultural contexts through an overview of the aesthetic and critical dimensions of viewing and creating various dance idioms. Offers a variety of dance experiences,

including the viewing of dance in live and video formats, reading about dance, and experiencing selected dance movements from various dance genres. Explores the relationship of dance to other art forms. The class is open to all students as a fine arts elective.

ECED 4305 LANGUAGE AND LITERACY DEVELOPMENT IN EC-6 CLASSROOMS (2-2) Focus on children's developing verbal and non-verbal communication skills. Examine relationships among listening, speaking, reading, and writing. Consider theories of early literacy development. Special attention to the relationships among literacy, social, and cognitive development; technological advances; and diversity in children and families. Prerequisite: ECED 4317 and ECED 4318. Weekly field experience in EC-6 classrooms required.

ECED 4308 APPLICATIONS IN TECHNOLOGY FOR TEACHERS OF YOUNG CHILDREN (2-2) Provides introduction to basic computer operations and technology, including fundamentals of formatting documents in ClarisWorks; spreadsheet, database and word processing. Students will examine hardware and software appropriate for use with young children and consider developmentally appropriate use of technology in early childhood classrooms. Taken concurrently with ECED 4310 and ECED 4311. Field experience required. Prerequisites: ECED 4305, BEEP 4306, and EDTC 4301.

ECED 4310 SPECIAL POPULATIONS AND DIVERSE SETTINGS (2-2) 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. Taken concurrently with BEEP 4384 and ECED 4311. Field experience required. Prerequisites: ECED 4305.

ECED 4311 TEACHING MATHEMATICS IN EARLY AND ELEMENTARY EDUCATION (3-2) Principles of integration of mathematics concepts in relation to cognitive development. Emphasis on developing dispositions promoting scientific investigation and appropriate objects, materials, activities and programs to assist in assimilation of mathematics concepts. Course will also address the instructional needs and appropriate assessment of all students in inclusive, multicultural and multilingual classrooms for this content area. Field experiences required. Prerequisite: ECED 4305 and BEEP 4306.

ECED 4312 TEACHING SCIENCE AND HEALTH IN EARLY AND ELEMENTARY EDUCATION (2-1) Principles of integration of science and health concepts in relation to cognitive, socio-emotional, and psychomotor development. Emphasis on developing dispositions promoting scientific investigation and appropriate objects, materials, activities and programs to assist in assimilation of science and health concepts. Course will also address the instructional needs and appropriate assessment of all students in inclusive, multicultural, and multilingual classrooms

for this content area. Field experiences required.

ECED 4313 THE ARTS IN ELEMENTARY EDUCATION (3-0) Provides EC-6 candidates with an understanding of how experiences in visual art, music, drama and movement are integrated throughout elementary curriculum to support childrenÿs learning and development. Candidates will learn the importance of the arts for childrenÿs cognitive, socio-emotional and psychomotor development. Course will also address the instructional needs and appropriate assessment of all students in inclusive, multicultural, and multilingual classrooms for this content area.

ECED 4314 TEACHING SOCIAL STUDIES IN EARLY ELEMENTARY EDUCATION (2-2) Examination of materials, methods, content, and assessment learning experiences associated with elementary social studies. Content areas include history, geography, economics, government, citizenship, culture, science, technology and society. Opportunities to demonstrate applications in field settings. Course will also address the instructional needs and appropriate assessment of all students in inclusive, multicultural, and multilingual classrooms for this content area. Field experiences required.

ECED 4317 GROWTH, DEVELOPMENT, AND LEARNING THEORY (3-0) Examination of the relationship between major theories and principles of cognitive, socio-emotional, and psychomotor development and EC-6 student learning and behavior in the classroom. Emphasis on environmental and cultural influences on children's development and learning, prenatal through age 12. This course is a prerequisite course and must be taken with ECED 4318.

ECED 4318 FOUNDATIONS OF EARLY EDUCATION (3-0) History, issues, and trends in early education; impact of state and federal mandates on programs for children; and foundations for early learning including learning environments, curriculum development, instructional delivery, guidance, home-school connections, and appropriate assessment. This course is a prerequisite course and must be taken with ECED 4317.

ECED 4319 OBSERVATION AND ASSESSMENT OF EC-6 CHILDREN (2-2) Principles of designing and implementing authentic assessment techniques that are individually respectful, culturally fair, reliable, and appropriate for children in EC-6 classrooms. Emphasis on observation, documentation, portfolios, informal and formal evaluations, group tests and measurements, purposes of norm-referenced and criterion-referenced tests, and research findings in assessment of children. Taken concurrently with ECED 4314 and ECED 4687 Residency. Prerequisite: BEEP 4384, ECED 4310 and ECED 4311.

ECED 4320 FOUNDATIONS OF ELEMENTARY EDUCATION (3-0) A study of developmentally appropriate curriculum and methods for elementary classrooms, including diversity, assessment, behavior guidance and management, planning instruction and creating positive learning environments. Includes an overview of the

history of elementary education and issues currently facing the profession. Course will also address instructional needs and appropriate assessment of all students in inclusive, multicultural, and multilingual classrooms. Prerequisite: ECED 4317.

ECED 4687 RESIDENCY IN EC-6 EDUCATION (25-1) Full-time supervised and directed practice in university-approved classrooms for students in EC-6 classrooms. Students will have at least two placements: one in PK-2 and one in grade 3-6. Residency must immediately follow the Internship semester. Residency assumes that students will follow the school district's calendar, and report to the classroom all day and each day of the semester. Taken concurrently with ECED 4314 and 4319. Prerequisite: ECED 4310 and 4311.

ECON 2305 PRINCIPLES OF MACROECONOMICS (3-0) (ECON 2301). Elementary models of the macroeconomy. Measures of aggregate economic activity and unemployment and inflation, money and banking, monetary and fiscal policy, international trade and payments, and applications of theory to society's problems.

ECON 2306 PRINCIPLES OF MICROECONOMICS (3-0) The science of choice; develops demand, supply, and the market mechanism for allocating society's scarce resources; analyzes the impact of different industry structures in the market; applies the tools of microeconomic analysis to various topics such as price controls and international trade.

ECON 2337 ECONOMICS OF SOCIAL ISSUES (3-0) Economic consequences and solutions of current social issues. Each semester, a series of topics will be covered in line with current events and the instructor's expertise to facilitate an understanding of the economic structure. Will not serve to meet degree requirements for College of Business Administration majors.

ECON 3301 THE ECONOMICS OF HEALTH (3-0) Applies economic analysis to the health sector; examines issues involving health insurance and how these issues have been addressed by the market and by the government; role of market structure in health care markets such as the hospital and pharmaceutical industries; compares the U.S. health care system to health care systems in other countries. Prerequisite: ECON 2306.

ECON 3302 THE ECONOMICS OF CRIME (3-0) Economic analysis of criminal activity and its impact on the allocation of scarce resources; economic models of criminal behavior, optimum allocation of criminal justice resources, public and private sector approaches to deterrence, and current issues such as gun control and drug abuse prevention. Prerequisite: ECON 2306.

ECON 3303 MONEY AND BANKING (3-0) Monetary and banking systems of the United States, including the problems of money and prices, proper organization and functioning of commercial banking and Federal Reserve systems, problems of monetary standards, and credit control. Recent monetary and banking trends. Prerequisite: ECON 2305.

ECON 3304 PUBLIC SECTOR ECONOMICS (3-0) Examines various economic reasons that may justify government involvement in

the economy with particular focus on the problems inherent in government intervention. It considers topics such as the efficiency and fairness of alternative taxing systems, the growth and effects of government debt, and public choice (how spending and taxing decisions are made). It analyzes various government programs such as Social Security, health care, expenditure programs for the poor, etc. Prerequisite: ECON 2306.

ECON 3305 LAWS AND ECONOMICS (3-0) A review of the economic effects of laws and legal institutions, including property rights, the common law of contracts and torts, regulations, and crime and punishment. Prerequisite: ECON 2306.

ECON 3306 SPORTS ECONOMICS AND BUSINESS (3-0) Basic economics principles applied to the analysis of professional and amateur sports. Topics include fan demand, advertising, team output decisions, league/conference organization, sports rules, and government regulations. The course is designed for both business and economics majors. Prerequisite: ECON 2306.

ECON 3310 MICROECONOMICS (3-0) The theory of consumer behavior and the theory of the firm. The theory of production, the theory of cost and price determination, and resource allocation under competition, monopoly, and imperfect competition. Prerequisite: ECON 2306 and 60 credit hours.

ECON 3312 MACROECONOMICS (3-0) Interactions among private sector behavior, government policies, central bank actions and international events, and their effects upon the resulting national living standard, employment, growth, and prices. Particular emphasis upon modeling and the macroeconomy. Prerequisite: ECON 2305 and 60 credit hours.

ECON 3313 INDUSTRIAL ORGANIZATION AND PUBLIC POLICY (3-0) Explains market structure and its relation to strategic behavior, advertising, pricing and product differentiation decisions. Further topics include the organization of the firm, takeovers, mergers and acquisitions, research and development, and the various regulatory controls placed on firms and industries. Prerequisite: ECON 2306.

ECON 3318 INTRODUCTION TO ECONOMETRICS (3-0) The application of economic theory and statistical techniques for the purpose of testing hypotheses and estimating and analyzing economic phenomena. Prerequisite: STAT 3321 or MATH 3313.

ECON 3328 PRINCIPLES OF TRANSPORTATION (3-0) Impact of freight and passenger transport upon individual, business, and governmental decision-making in an evolving, competitive world economy. Prerequisite: ECON 2306.

ECON 3335 ECONOMICS OF PUBLIC POLICIES (3-0) Economic analysis of issues of general interest. A nontechnical application of principles of economics to current topics such as abortion, crime, deficit spending, divorce, education, health care, immigration, politics, recycling, risk and safety, Social Security, sports, and tax policy. Prerequisite: ECON 2306.

ECON 3388 EUROPEAN ECONOMIC HISTORY, 1750 TO PRESENT (3-0) The English Industrial Revolution, Europe's slow transformation before 1850, and large-scale industry, banking, transportation, and commerce in the later 19th and 20th centuries. Topics for the 20th century include depression, war, postwar economic integration, and the collapse of communism. Prerequisite: ECON 2305.

ECON 4191 STUDIES IN ECONOMICS (1-0) Advanced studies, on an individual basis, in the various fields of economics. Prerequisite: ECON 2306 and 90 credit hours and departmental permission.

ECON 4291 STUDIES IN ECONOMICS (2-0) Advanced studies, on an individual basis, in the various fields of economics. Prerequisite: ECON 2306 and 90 credit hours and departmental permission.

ECON 4302 ENVIRONMENTAL ECONOMICS (3-0) Economic forces that influence the quality of the environment; economic theory and environmental management; regulatory requirements for economic impact analysis; international issues including trade and implications for Third World economies. Prerequisite: ECON 2306.

ECON 4306 COMPARATIVE ECONOMIC SYSTEMS (3-0) The differences between capitalism, liberal socialism, and communism. Evaluation of the performance and efficiency characteristics of each system. Consideration is also given to the obstacles that confront former communist societies seeking to reorganize, and to the possible forms of economic reconstruction the emerging nations may undertake. Prerequisite: ECON 2306.

ECON 4311 ECONOMICS FOR MANAGERS (3-0) This class studies the decision-making process involving the economic activities of a firm. It provides the tools that help managers choose the best solution among all possible ones to achieve the firm's goal. The class is real-world oriented and examines topics such as demand, costs, production, market structure and market power, and pricing decisions. Prerequisite: ECON 2306 and 60 credit hours.

ECON 4319 ECONOMIC GROWTH AND THE MULTINATIONAL CORPORATION (3-0) The economic effects of the multinational corporations on the world economy: their effects on long-term capital flows, world production, transfer of technology, and the developing countries. Prerequisite: ECON 2305 and ECON 2306.

ECON 4321 INTERNATIONAL TRADE (3-0) Explanations of why nations trade and what they trade. The economics and politics of protection of domestic industries (tariffs, quotas). U.S. and foreign trade policies. Regional blocks (NAFTA, EEC). International factor movements (the role of the multinational firm and labor migration). Prerequisite: ECON 2306.

ECON 4322 INTERNATIONAL FINANCE (3-0) The nature and instruments of international payments. International financial institutions and arrangements. Exchange rate, balance of payment, and income determination theories. Prerequisite: ECON 2305.

ECON 4323 INTRODUCTION TO MATHEMATICAL ECONOMICS (3-0) Exposes students to certain basic mathematical concepts and methods and relates these techniques to various types of economic analysis. Covers the mathematical methods used in static and comparative-static analysis, optimization problems, and simple dynamic analysis. Prerequisite: MATH 1316 and ECON 3310 and ECON 3312.

ECON 4324 MONETARY AND FISCAL POLICY (3-0) The effects of money on production and national income; quantity and commodity theories of money; various theories of interest rates; instruments and policies of Federal Reserve monetary action; proposals for monetary reform. Central bank systems. Prerequisite: ECON 2306 and ECON 3303 and 60 credit hours.

ECON 4325 ECONOMIC FLUCTUATIONS AND FORECASTING (3-0) Develops measures of economic activity, discusses history and competing theories of the business cycle, the role of money and interest rates; business forecasting using leading and lagging indicators, time series analysis, and econometric techniques. Prerequisites: ECON 2305 and 60 credit hours.

ECON 4330 LABOR ECONOMICS (3-0) Application of economic principles to labor topics such as the demand for marriage, the demand for children, the economics of beauty, the economics of highly paid sports and entertainment stars, the effects of immigration on U.S. wages and employment, workplace discrimination, the effects of affirmative action policies, and the effects of minimum wage legislation. Prerequisite: ECON 2306.

ECON 4331 SEMINAR IN ECONOMICS (3-0) Readings and discussions of special topics in economics. Prerequisite: 60 or 90 credit hours and consent of instructor. May be repeated for credit with consent of department chair.

ECON 4391 STUDIES IN ECONOMICS (3-0) Advanced studies, on an individual basis, in the various fields of economics. Prerequisite: ECON 2306 and 90 credit hours and departmental permission.

ECON 4393 ECONOMICS INTERNSHIP (3-0) Practical training in economics. Analysis of theory applied to real life situations. May be used as an advanced business elective only; graded on a pass/fail basis. No credit will be given for previous experience or activities. May not be repeated for credit. Prerequisite: Junior standing and consent of department internship advisor.

EDAD 1130 FOUNDATIONS OF LEADERSHIP (1-0) Student leadership trainers, under the supervision of the staff in the Department of Student Activities, facilitate class discussion and assist students in identifying the necessary skills for effective leadership in university organizations and in both personal and professional settings. Topics include: leadership vs. management communication, leadership styles and personality traits, emotionally intelligent leadership, ethical leadership, leadership and change, and diversity and cultural awareness. Opportunities are provided for group problem solving, and team interaction and collaboration. Elective only and does not count as part of the

professional certification requirements. Pass-Fail grades will be awarded.

EDAD 2330 THEORIES IN LEADERSHIP (3-0) Identifies the philosophy and theories of leadership, leadership styles, and contemporary leadership issues. Practical application of leadership skills are developed through interactive class discussions, analyzing case studies, and group problem-solving and role-playing experiences.

EDAD 4330 CAPSTONE IN LEADERSHIP STUDIES (3-0) This capstone course focuses on the synthesis of learning and experiences across the prior 15 hours of coursework. Students will design and present their new understandings of leadership and speculate about futures on the horizon. Prerequisite: EDAD 2330.

EDML 4300 PRE-ADOLESCENT/ADOLESCENT GROWTH AND DEVELOPMENT (3-0) Prerequisite to subsequent courses in teacher education. Physical, social, emotional, and cognitive growth patterns from emphasizing familial, cultural, societal, and genetic determinants of behavior. Topics include the following: developmental characteristics of pre-adolescents/adolescents including exceptional learners and students with special needs, a variety of disabilities (Learning Disabled, Emotionally Disabled, Behavior Disorders, Attention Deficit Hyperactivity Disorder, etc.), the creation and purpose of Individual Education Plans, concepts, and forms, as well as the IDEA law, its application and ethical considerations. The course also includes a field component of fifteen hours. Prerequisite: Admitted to the Middle Level Program. Advisor permission required.

EDML 4350 NATURE & CURRICULUM NEEDS OF THE YOUNG ADOLESCENT LEARNER (3-0) Examines the curriculum, instruction, and organization of middle grades schools. Provides a substantial knowledge base in the nature and needs of early adolescents, as well as in middle school curriculum, instruction, and behavior management. A variety of instructional approaches will be discussed including the purpose and need for appropriate language, behavior, and disability modifications, inclusion, resource, consult, content mastery, and others. Special emphasis will be the Texas Assessment of Knowledge and Skills (TAKS) and other state assessments. Theory and practice in the teaching of students with special needs will be addressed. The course also includes a field component of twenty-five hours. Prerequisite: Admitted to the Middle Level Program. Advisor permission required.

EDML 4360 TEACHING STUDENTS WITH SPECIAL NEEDS - A SURVEY (3-0) Theory and practice in the teaching of students with special needs, including a survey of the variety of disabilities (LD, ED, physical handicapped, conduct, ADD, ADHD, etc.), the creation and purpose of Individual Education Plans, concepts and forms. The IDEA law and its application, and ethical considerations. A variety of instructional approaches will be discussed including the purpose and need for appropriate modifications, inclusion, resource, consult, content mastery and others. Special emphasis will be the TAKS and State Developed Alternative Assessment.

EDML 4370 SOCIAL STUDIES & DIVERSITY IN THE MIDDLE LEVEL GRADES (3-0) Examination of materials, methods, content, and assessment learning experiences associated with middle level social studies. Content areas include history, geography, economics, government, citizenship, culture, science, technology, and society. Opportunities to demonstrate application of current researched-based theory in a service learning experience. Prerequisites: EDML 4300 & 4350; BEEP 4384; LIST 4343. Advisor permission required.

EDML 4371 SCIENCE IN THE MIDDLE LEVEL GRADES (3-0) Instructional approaches, management, materials, and effective teaching practices pertinent to teaching science in the middle level grades; the organization of science content and the selection and implementation of lesson designs which utilize a hands-on approach promoting discovery and inquiry. This Inquiry course involves a two-hour lecture and two-hour application of lecture /theory. The two-hour application of lecture/theory will require students to spend time in a 4-8 classroom during normal school hours. Prerequisites: EDML 4300, EDTC 4301, and EDML 4350.

EDML 4372 MATHEMATICS IN THE MIDDLE LEVEL GRADES (3-0) Curriculum standards, methods, and effective teaching practices as proposed by the National Council of Teachers of Mathematics for the middle level; the organization of mathematics content with an emphasis on using manipulatives and technology to teach math. This inquiry course involves a two-hour lecture and two-hour application of lecture/theory. The two-hour application of lecture/theory will require students to spend time in a 4-8 classroom during normal school hours. Prerequisite: EDML 4350.

EDML 4676 MIDDLE LEVEL INTERNSHIP (2-0) Internship experience in local middle level schools. Candidates to be placed in two settings: an early grade (4, 5, or 6) and late grade (6, 7, or 8), as well as in two content areas. Internship Monday through Thursday, 8:30 am - 4:30 pm. Prerequisite: EDML 4300, EDML 4350, LIST 4343, and BEEP 4384. This course must be taken just prior to residency (EDML 4677). Advisor permission required.

EDML 4677 MIDDLE LEVEL PREPARATION RESIDENCY WITH TECHNOLOGY APPLICATIONS (2-25) Supervised and directed practice in an approved field setting. The student will be assigned for the ISD calendar. Required seminars will provide students with theory to integrate and apply during residency. Prerequisites: Inquiry semester, EDML 4370, EDML 4371, EDML 4372 and LIST 4378.

EDTC 4201 TECHNOLOGY APPLICATIONS (2-1) This course is for K-12 educators who are interested in integrating technology into teaching and learning. Its focus is on the Technology Applications Texas Essential Knowledge and Skills (TA-TEKS). Participants should gain a greater understanding of the Technology Applications TEKS and how to introduce them into curriculum. Study and application of technology use in educational environments. Topics include: instructional learning and computer software.

EDTC 4301 TECHNOLOGY APPLICATIONS (3-0) This course is for K-12 educators who are interested in integrating technology into teaching and learning. Focus is on the Technology Applications Texas Essential Knowledge and Skills (TA-TEKS). Participants should gain a greater understanding of the Technology Applications TEKS and how to introduce them into curriculum. Study and application of technology use in educational environments. Topics include: instructional learning and computer software.

EDUC 2101 EXPLORING TEACHING (1-1) An opportunity to experience a mentorship with public school students while exploring the impact Gardner's Multiple Intelligences and personality profiles play in the learning environment. Ten hours of mentorship required. Academic credit awarded. Service Learning course.

EDUC 2330 STUDENT LEADER EFFECTIVENESS TRAINING (3-0) Identifies the philosophy and theories of leadership, leadership styles, and contemporary leadership issues for any student who desires to pursue their leadership education. Practical application of leadership skills are developed through interactive class discussions, analyzing case studies, and group problem-solving and role-playing experiences. Elective only and does not count as part of the professional education certification requirements.

EDUC 4325 WOMEN IN SCIENCE (3-0) Explores the role of women in science. Emphasis on gender and science, the history of women in science, gender equity in the classroom, strategies for the retention of women scientists, the current culture/climate for women in science, and contemporary women in science. Offered as EDUC 4325, SCIE 4325, and WOMS 4325. Credit will be granted only once.

EDUC 4340 HUMAN GROWTH AND DEVELOPMENT (3-0) Prerequisite to subsequent courses in teacher education. Physical, social, emotional, and cognitive growth patterns from conception to early adulthood, emphasizing familial, cultural, societal, and genetic determinants of behavior. Topics include developmental characteristics of children and adolescents including exceptional learners and students with special needs.

EDUC 4341 ORGANIZATION AND MANAGEMENT OF INSTRUCTION IN SECONDARY SCHOOLS (2-2) Emphasizes the importance of organizing, developing, and adapting management systems to enhance learning in classroom environments. Managing the teaching-learning process, applying a variety of assessment techniques, motivation, and adapting management styles to meet student needs. This course involves a two-hour lecture and two-hour application of lecture/theory. The two-hour application of lecture/theory will require students to spend time in a K-12 classroom during normal school hours, 8 a.m.-4 p.m., Monday-Friday.

EDUC 4342 APPLICATIONS OF INSTRUCTION IN SECONDARY CLASSROOMS (2-2) Field-based applications of curriculum planning and instructional theory and methods. Includes writing and implementing unit and instructional goals

and objectives, using instructional lesson models to meet teacher appraisal criteria including utilization of classroom technology and audiovisual aids, planning for individual needs, and evaluating student progress. This course involves a two-hour lecture and two-hour application of lecture/theory. The two-hour application of lecture/theory will require students to spend time in a K-12 classroom during normal school hours, 8 a.m.-4 p.m., Monday-Friday.

EDUC 4346 SECONDARY SCHOOL CULTURE AND THE TEACHING PROFESSION (2-2) School cultures, effective schools and teaching practices, stages of professional development, foundations of American schools, legal and ethical aspects, and societal demands on the school.

EDUC 4347 SECONDARY SCHOOL INTERNSHIP WITH TECHNOLOGY APPLICATIONS (1-5) Supervised and directed professional practice in a local secondary school. The student will be assigned to a public school site for five hours per week. Weekly seminars are required. Internship must be taken the semester prior to residency. Theory from technology will be applied during internship assignment.

EDUC 4352 TEACHING DIVERSE POPULATIONS (2-2) Effective instruction, assessment, and management strategies for working in diverse educational settings. Designed to provide increased self-awareness and insight into issues of diversity such as culture, ethnicity, exceptionality, gender, language, religion, and socioeconomic status. This course involves a two-hour lecture and two-hour application of lecture/theory. The two-hour application of lecture/theory will require students to spend time in a K-12 classroom during normal school hours, 8 a.m.-4 p.m., Monday-Friday.

EDUC 4390 SELECTED TOPICS IN EDUCATION (3-0) An examination of different topics related to education. This seminar may be repeated for credit as the topic changes.

EDUC 4391 CONFERENCE COURSE (0-0) Independent study in the preparation of a project or a paper on a research topic; consultation with instructor on a regular basis. May be repeated for credit. Prerequisite: permission of instructor.

EDUC 4647 SECONDARY TEACHER PREPARATION RESIDENCY WITH TECHNOLOGY APPLICATIONS (25-1) Supervised and directed practice in an approved field setting. The student will be assigned for the ISD calendar. Required seminars will provide students with theory to integrate and apply during residency.

EE 1104 INTRODUCTION TO ENGINEERING (1-0) Introduction to basic engineering concepts. Students become familiar with engineering and its many sub-fields, ethical responsibilities, creativity and design.

EE 1105 INTRODUCTION TO ELECTRICAL ENGINEERING (1-2) A project based course in which basic concepts in electrical engineering, such as electrical systems, power and energy, circuit laws, measurements, and data analysis will be introduced. Student teams will engage in laboratory experiments and hands-on

projects. Topics will be taken from the following list: analog and digital electronics, robotics, semiconductors, electromagnetics, signal processing, photonics, energy management, and telecommunication systems. Corequisite: EE 1104.

EE 2181 CIRCUIT ANALYSIS LABORATORY (0-3) Circuits laboratory for non-electrical engineering majors. This is identical to the laboratory portion of EE 2440. Prerequisite: Grade C or better in MATH 2425. Corequisite: EE 2320 and PHYS 1444.

EE 2182 SOPH ELEC ENG II (0-0)

EE 2303 ELECTRONICS I (3-0) Characteristics and circuit models for semiconductor diodes, bipolar junction transistors (BJTs), and field-effect transistors (FETs). Circuit applications of diodes. Direct Current (DC) biasing and stability of circuits containing diodes, BJTs, and FETs. Introduction to mid-band single stage small signal analysis of BJT and FET circuits. Prerequisite: Grade C or better in both EE 2315 and MATH 2326.

EE 2307 ELECTROMAGNETICS I (3-0) Electric charge, Coulomb's law, static electric field, electric potential, electric flux, Gauss's law, divergence theorem, electric conductor, dielectric media, permittivity, electric field boundary conditions, capacitance, electrostatic energy and forces, steady electric current, electromotive force, Kirchhoff's voltage law and Kirchhoff's current law; Static magnetic field, Ampere's circuital law, curl of the magnetic field, Stokes' theorem, vector magnetic potential, magnetic flux, magnetic fields in media, permeability, magnetic field boundary conditions, magnetic forces and the Hall effect. Prerequisite: Grade C or better in PHYS 1444 and MATH 2326. Corequisite: Math 3319.

EE 2313 ELEC SCI I (0-0)

EE 2314 ELECT SCI II (0-0)

EE 2315 CIRCUIT ANALYSIS I (3-0) Basic circuit concepts of R, L, and C components. Kirchhoff's laws, resistive network analysis, power calculations, loop and node equations, topology, basic network theorems. Dependent sources and operational amplifiers. Computer-assisted solution of circuit problems. Elementary transient analysis. Steady state A-C phasor analysis, including element laws and phasor diagrams. Prerequisite: Grade C or better in MATH 2425. Corequisite: MATH 2326, PHYS 1444.

EE 2320 CIRCUIT ANALYSIS (3-0) For non-electrical engineering majors. Basic principles of R, L, and C components. Kirchhoff's laws, network analysis, loop and node equations, basic network theorems. Steady-state Alternating Current (AC) phasor analysis, operational amplifiers, filtering, and digital circuits. Prerequisite: Grade C or better in MATH 2425 and PHYS 1444.

EE 2341 DIGITAL CIRCUITS DESIGN (2-3) Theory and design of digital logic circuits. Review of number systems and binary arithmetic. Boolean function theorems and minimization by algebraic and mapping methods, logic gates, arithmetic logic units,

multiplexers/ demultiplexers, analysis and synthesis of combinatorial logic circuits, ROM memories, synchronous and asynchronous state machines, hazards and races in pulse mode and fundamental mode state machines. Design and fabrication projects utilizing digital integrated circuits. Laboratory consists of "proof of concept" experiments using digital components. Prerequisite: Grade C or better in CSE 1311.

EE 2347 COMPUTER METHODS FOR ELECTRICAL ENGINEERING (3-0) Introduction to algorithmic development and application of algorithmic thinking to solve electrical engineering problems using MATLAB programming. Study of numerical methods to solve for roots of an equation, numerical integration, solution of simple ordinary differential equations and linear algebra equations. Sources of error when using arithmetic operations. Data structures, sorting and searching. Prerequisite: Grade C or better in each of MATH 1426, CSE 1311, and MATH 2425.

EE 2440 CIRCUIT ANALYSIS WITH LAB (3-3) For non-electrical engineering majors. Basic principles of R, L, and C components. Kirchhoff's laws, network analysis, loop and node equations, basic network theorems. Steady-state AC phasor analysis, operational amplifiers, filtering, and digital circuits. Concurrent laboratory experiments complement lecture topics. Prerequisite: Grade C or better in MATH 2425 and PHYS 1444.

EE 3302 FUNDAMENTALS OF POWER SYSTEMS (3-2) Introduction to power systems, three-phase circuit analysis, symmetrical components, transformer, polyphase induction motors, synchronous generators, synchronous motors, diode and diode circuits, thyristor and thyristor circuits, DC-DC switching converters, and DC-AC switching converters, Renewable energy sources. Concurrent laboratory experiments complement the course lecture topics. Prerequisite: Grade C or better in EE 3446. Corequisite: EE 3308.

EE 3308 ELECTROMAGNETICS II (3-0) Time varying electric and magnetic fields, Faraday's law, energy in a magnetic field, displacement current, Maxwell's equations and transverse electromagnetic waves; plane waves in an unbounded medium, waves in media with planar interfaces, boundary conditions, reflection and transmission, plane waves in lossless and lossy media; electromagnetic waves in a bounded medium, guided waves, wave guides, propagation modes; transmission lines, circuit models of transmission lines, transmission line equations, reflection at discontinuities, terminations, transient response, steady state waves on transmission lines, open and short circuited lines, power flow, impedance matching and the Smith chart. Prerequisite: Grade C or better in EE 2307.

EE 3310 MICROPROCESSORS (3-2) Principles of operation for microprocessors, including assembly language programming, internal architecture of processors, timing analysis, and interfacing techniques. Special emphasis will be placed on hardware-software interactions, design of memory systems for microprocessors and utilization of programmable peripheral devices. Prerequisite: Grade of C or better in EE 2341 and CSE 1311.

EE 3315 CIRCUITS (0-0)

EE 3317 LINEAR SYSTEMS (3-0) Time-domain transient analysis, convolution, Fourier Series and Transforms, Laplace Transforms and applications, transfer functions, signal flow diagrams, Bode plots, stability criteria, and sampling. EE 3317 Prerequisite: Grade C or better in MATH 3319, Corequisite: EE 3446.

EE 3318 DISCRETE SIGNALS AND SYSTEMS (3-0) Discrete-time convolution. 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. Convolution via the discrete Fourier transform. Design of frequency selective IIR digital filters using frequency transformations and the bilinear transform. Prerequisite: Grade of C or better in EE 3317.

EE 3330 PROBABILITY AND RANDOM SIGNALS (3-0) Probability, random variables, functions of random variables, random signals, noise, response of linear systems to random inputs. Prerequisite: Grade of C or better in EE 3317. Corequisite: EE 3318.

EE 3444 ELECTRONICS II WITH LAB (3-3) Low and high frequency characteristics and circuit models for diodes, bipolar junction transistors (BJTs), and field effect transistors (FETs). Analysis and design of full spectrum small signal BJT and FET circuits. Analysis and design of active filters, oscillators, feedback configurations, and multistage differential and operational amplifiers. Concurrent laboratory exercises in support of the topics covered in Electronics I and II. Prerequisite: Grade of C or better in EE 2303. Corequisite: EE 3317 and EE 3446.

EE 3446 CIRCUIT ANALYSIS II WITH LAB (3-3) Network theorems. Power, reactive power, resonance, circular loci, mutual inductance and transformers. Dependent sources, linear variational models, and introduction to two-port networks. Solution of differential equations using Laplace transform techniques. Introduction to transmission lines. Concurrent laboratory experiments complement EE 2315 and EE 3446 lecture topics. Prerequisite: Grade C or better in each of EE 2315, EE 2347, MATH 2326, and MATH 3319.

EE 4301 POWER SYSTEMS ANALYSIS AND CONTROL (3-0) This course includes an introduction to synchronous machines, power flow analysis, short circuit analysis, power system controls, and the fundamentals of transient stability analysis. Prerequisite: Grade of C or better in EE 3302 or consent of instructor.

EE 4314 CONTROL SYSTEMS (3-2) Analyses of closed loop systems using frequency response, root locus, and state variable techniques. Analog and digital control design methods. System modeling, identification, and control design based on analytic and computer methods. Use of laboratory experiments with mechatronic systems to complement the course lectures. Prerequisite: Grade of C or better in EE 3318.

EE 4315 INTRODUCTION TO ROBOTICS

(3-0) Overview of industrial robots. Study of principles of kinematics, dynamics, and control as applied to industrial robotic systems; robotic sensors and actuators; path planning; programming of industrial robot in the laboratory; survey of robotic applications in various modern and traditional fields; and guidelines to robot arm design and selection. Offered as EE 4315 and MAE 4345. EE Prerequisite: EE 4314. MAE Prerequisite: MAE 3314, MAE 3319, C or better in EE 2320.

EE 4318 DIGITAL SIGNAL PROCESSING (3-0) Discrete time convolution. Fast convolution using the fast Fourier transform (FFT). Amplitude and phase of digital filters. Stability analyses using the Z-transform. Design of finite impulse response (FIR) digital filters through windowing and optimization approaches. Infinite Impulse Response (IIR) digital filter design approaches using transformation and optimization. Prerequisite: Grade of C or better in EE 3317 and EE 3318.

EE 4320 VLSI DESIGN AND TECHNOLOGY (3-0) Very Large Scale Integration circuit design and fabrication technology. MOS device models and integrated circuit design with mosfets. CAD tools for VLSI design. Processing models and process flow. MOS integrated circuits for linear, and large scale digital processing. Prerequisite: Grade of C or better in EE 3444.

EE 4327 THEORY AND DESIGN OF ANTENNAS (3-0) Basic theory of antennas with emphasis on design and engineering application. Prerequisite: Grade of C or better in EE 3308.

EE 4328 CURRENT TOPICS IN ELECTRICAL ENGINEERING (3-0) To introduce current topics into the curriculum prior to the creation of permanent course numbers. A notice listing a descriptive course title, a course description, and the name of the instructor will be posted outside the departmental office each time the course contents are changed. Prerequisite: consent of instructor.

EE 4329 PHYSICAL ELECTRONICS (3-0) Semiconductor device physics and models for integrated circuit design. Analog integrated circuit design with MOS and bipolar devices. Feedback amplifiers, differential stages, and operational amplifier design. CAD tools for analog circuit design. Integrated circuit manufacturing processes. Prerequisite: Grade of C or better in EE 3444.

EE 4330 FUNDAMENTALS OF TELECOMMUNICATIONS SYSTEMS (3-0) Examines 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 communications systems. Prerequisite: Grade of C or better in EE 3330.

EE 4331 DATA COMMUNICATIONS ENGINEERING (3-0) Data communications network planning, design, and analysis. The OSI (Open Systems Interconnection) layered model, interface standards, signals and protocols, modem and LAN (Local Area Network) standards. Prerequisite: Grade of C or better in EE 4330.

EE 4333 MODERN TELECOMMUNICATIONS (3-0) 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). Prerequisite: Grade of C or better in EE 4330.

EE 4334 PROGRAMMABLE LOGIC DESIGN (3-0) Design of digital systems using programmable logic devices and high-level techniques. The course emphasizes the understanding of state-of-the-art hardware devices as well as design and simulation tools. Various design options and compromises will be explored for typical tasks. Projects will be assigned to develop design proficiency. Prerequisite: Grade of C or better in EE 3310.

EE 4339 RADIO FREQUENCY CIRCUIT DESIGN (3-0) Analysis of waves on ideal transmission lines, assorted practical transmission line systems, and hollow waveguides. Circuit theory for transmission line systems involving scattering parameters and the Smith chart. Microwave impedance matching techniques. Design of lumped element amplifiers from VHF to microwave frequencies. Real world microwave characterization techniques. Prerequisite: Grade of C or better in EE 3444 and EE 3308.

EE 4340 CONCEPTS & EXERCISES IN ENGINEERING PRACTICE (3-0) Integration of technical knowledge and skills with project planning, teamwork, and communication skills (written and oral). A project-oriented approach is used including the preparation of literature-based research reports, research proposals, product development proposals, and project management plans. Supporting topics: technical information resources, ethics, safety, intellectual property. Students will begin their engineering capstone design experience, including team formation, project selection, background research, and preparation of preliminary project plan. Prerequisite: COMS 3302 (formerly SPCH), EE 3308, EE 3310, EE 3318, EE 3330. Corequisite: ECON 2305.

EE 4349 ENGINEERING DESIGN PROJECT (3-0) A practicum resulting in the design, construction, and evaluation of a device or system, building on electrical or electronic knowledge and skills acquired in earlier course work, and incorporating appropriate engineering standards. The application of project management techniques in order to meet design specifications through the effective allocation of team resources, scheduling, and budgetary planning. The demonstration of the finished product/prototype through both oral presentation and a written project report. Mode of Instruction: Practicum. Prerequisite: Grade of C or better in EE 4340. Grade of C or better in all prior 3000 and 4000 level EE coursework. Corequisites: EE 4314 and EE 4330.

EE 4391 ADVANCED PROBLEMS IN ELECTRICAL ENGINEERING (3-0) A research project under the direction of a faculty supervisor. May be taken as a technical elective with the permission of the department.

EM 2311 STATICS (0-0)

ENGL 0300 INTRODUCTION TO CRITICAL READING AND WRITING (3-0) Offers additional preparation in academic reading and writing. Focus is on comprehending college-level reading material and writing academic essays in standard written English. Passing this course satisfies Texas Success Initiative requirements. Students who need to raise their THEA reading score for Texas Education Certification may also enroll. This course may not be submitted for any other English course, and credit in this course does not fulfill any degree requirement.

ENGL 1301 CRITICAL THINKING, READING, AND WRITING I (3-0) The critical thinking about, and reading and writing of, referential/expository discourse. Introduction to inventional procedures. Writing assignments focusing on identification and development of a subject, on organization, audience analysis, style, and the revision process.

ENGL 1302 CRITICAL THINKING, READING, AND WRITING II (3-0) Continues ENGL 1301, but with an emphasis on critical thinking about, and reading and writing of, argumentative discourse. Introduction to inventional procedures such as types of proofs and claims and the Toulmin model. Writing assignments focusing on the identification, development, and support of propositions of fact, cause, value, and policy. Prerequisite: Grade of C or better in ENGL 1301.

ENGL 2303 TOPICS IN LITERATURE (3-0) May include topics in film and literature, women in literature, short story, and autobiography. May be repeated for credit when content changes.

ENGL 2305 INTERMEDIATE HONORS EXPOSITION (3-0) An intermediate writing course that includes generating ideas, collecting data, determining audience, and organizing material into clear, coherent compositions. May be repeated for credit with permission of the Honors College director. Prerequisite: Membership in the Honors College.

ENGL 2309 WORLD LITERATURE (3-0) (ENGL 2332). Significant works of world literature with emphasis on ideas and the ways in which they reflect cultural and aesthetic values; emphasis on critical methods of reading, writing, and thinking. Examines at least three genres and six authors.

ENGL 2311 SUR ENG LIT (0-0)

ENGL 2319 BRITISH LITERATURE (3-0) Significant British works with emphasis on ideas and the ways in which they reflect cultural and aesthetic values; emphasis on critical methods of reading, writing, and thinking; at least three genres and six authors considered.

ENGL 2329 AMERICAN LITERATURE (3-0) Consideration of significant American works with a focus on ideas and the ways in which they reflect cultural and aesthetic values; emphasis on critical methods of reading, writing, and thinking; at least three genres and six authors considered.

ENGL 2350 INTRODUCTION TO TEXTUAL

ANALYSIS AND INTERPRETATION (3-0) Teaches students to identify characteristics of genres, to recognize and understand critical and literary terms, and to develop and use methods and strategies for analyzing and interpreting texts. Required for English and English/Education majors.

ENGL 2371 HONORS AMERICAN LITERATURE I (3-0) Consideration of significant American works with a focus on ideas and the ways in which they reflect cultural and aesthetic values from America's beginnings to 1850.

ENGL 2372 HONORS AMERICAN LITERATURE II (3-0) Consideration of significant American works with a focus on ideas and the ways in which they reflect cultural and aesthetic values from 1850 to the present.

ENGL 3300 SPECIAL TOPICS IN LITERATURE (3-0) May include topics on Utopian literature, the American short story, Southwestern American literature, and modern British fiction. May be repeated for credit when content changes.

ENGL 3301 RUSSIAN LITERATURE IN TRANSLATION (3-0) The works of major Russian authors during the period from the beginning of Russian literature until the 1917 Revolution. The interrelationship of various literary movements and philosophies. Students receiving Russian credit will be required to compare selected translations with the original works and must complete a research or translation project. ENGL 3301: Study of representative works of the major Russian writers from Pushkin through Chekhov. Offered as ENGL 3301 and RUSS 3301; credit will be granted in only one department.

ENGL 3306 SOVIET AND POST-SOVIET LITERATURE IN TRANSLATION (3-0) RUSS 3306: The works of major Soviet and post-Soviet authors from 1917 to the present against the background of unfolding social and political development in the USSR and post-USSR. May be repeated for credit as topics and periods vary. Students receiving credit in Russian will complete a translation or research project using the Russian language. Also listed as ENGL 3306; credit will be given in only one department. ENGL 3306: Study of representative works of Russian writers immediately preceding the 1917 Revolution; of writing by Soviet authors acceptable to the Communist regime as well as by dissident voices; of the works from the period of glasnost; and of works written after the dissolution of the USSR. Also listed as RUSS 3306; credit will be granted in only one department.

ENGL 3339 CLASSICAL BACKGROUNDS (3-0) Literature of the Greco-Roman world including, but not limited to, The Odyssey, selected Greek tragedies, The Aeneid, Metamorphoses, and selected lyrics, epigrams, and satires.

ENGL 3340 HISTORY OF AMERICAN LITERATURE (3-0) American literature from its beginnings as related to the development of American culture; may include the study of canon formation.

ENGL 3341 AMERICAN DRAMA (3-0) Dramatic structure and techniques, as well as the study of drama in its cultural contexts.

ENGL 3342 AMERICAN POETRY (3-0) Examines the forms, traditions, and cultural contexts of the poetry of the United States. May include the relationship between American poetry and poetry written in English elsewhere. May include the relationship between American poetry and poetry written in other languages.

ENGL 3344 AMERICAN INDIAN LITERATURE (3-0) Offers an introduction to American Indian literatures or focuses on a particular genre, period or topic. May be repeated for credit as course content changes.

ENGL 3345 AFRICAN AMERICAN LITERATURE (3-0) Offers an introduction to African American literature or focuses on a particular genre, period or topic. May be repeated for credit as course content changes.

ENGL 3346 MEXICAN AMERICAN LITERATURE (3-0) Offers an introduction to Mexican American literature or focuses on a particular genre, period or topic. May be repeated for credit as course content changes.

ENGL 3347 TOPICS IN MULTICULTURAL LITERATURES (3-0) Either an intensive focus within one tradition or a comparison between two or more traditions. Topics may include Asian-American literature, the American Indian novel, the Harlem Renaissance, Jewish-American literature, Mexican-American and American Indian literatures, classic American Renaissance literature and African American literature. May be repeated for credit as course content changes.

ENGL 3351 HISTORY OF BRITISH LITERATURE I (3-0) British literature and language from their origins through the 18th century, as they relate to the development of British culture.

ENGL 3352 HISTORY OF BRITISH LITERATURE II (3-0) British literature from the Romantic period to the present, as it relates to the development of British culture.

ENGL 3355 POST-COLONIAL LITERATURE IN ENGLISH (3-0) Offers an introduction to literatures of once-colonial nations, focusing on theory as well as practice and on new relations to and divergences from the imperial center. Texts might include poetry, fiction, drama, film and critical theory. May be repeated for credit as course content changes.

ENGL 3361 HISTORY OF WORLD LITERATURE I (3-0) Examines the literature of the world, from antiquity to 1700.

ENGL 3362 HISTORY OF WORLD LITERATURE II (3-0) Examines the literature of the world, from 1700 to the present.

ENGL 3364 GAY AND LESBIAN LITERATURE (3-0) Examines modern representations of same-sex desire in relation to a variety of texts---religious, philosophical, literary and scientific--from the ancient world up through the 'invention' of homosexuality in the nineteenth century.

ENGL 3366 TOPICS IN LITERATURE AND ENVIRONMENT (3-0) Investigates the relationship between literature and

environment, considering how texts and other cultural practices represent and engage with the natural world. Topics may include nature writing, animal studies, environmental literature, film, environmental justice, and posthumanism. May be repeated for credit as course content changes.

ENGL 3370 WOMEN IN LITERATURE (3-0) Works by women writers and/or images of women in literature. May be repeated for credit as subject matter changes. Offered as ENGL 3370 and WOMS 3370; credit will be granted in only one department.

ENGL 3371 ADVANCED EXPOSITION (3-0) An advanced writing course emphasizing writing that explains, demonstrates, or explores a subject. Attention given to audience, invention, style (coherence, unity, and clarity), and to the revision process.

ENGL 3372 COMPUTERS AND WRITING (3-0) An advanced writing course, conducted in a computerized classroom. An emphasis on rhetorical analyses of electronic discourse and writing in electronic environments.

ENGL 3373 Technical Writing (3-0) Processes of researching, drafting, editing, revising, and designing technical reports, proposals, manuals, resumes, and professional correspondence for specific audiences. Prerequisite: ENGL 1301, ENGL 1302.

ENGL 3374 WRITING, RHETORIC, AND MULTIMEDIA AUTHORING I (3-0) Introduction to the rhetorical structure of multimedia. An emphasis on composing writing-intensive and research-oriented projects for academic, business, and/or creative audiences. Prerequisite: ENGL 1301, ENGL 1302.

ENGL 3375 CREATIVE WRITING (3-0) Introduction to creative writing in formats that may include workshop, lecture, and individual conference. Students will write in two or three genres, including poetry, prose fiction, and other forms.

ENGL 3376 BUSINESS & PROFESSIONAL WRITING (3-0) An advanced writing course, taught in a computerized classroom, that focuses on writing in the workplace. Emphasis is placed upon producing business and professional documents based on current, standardized formats; considering the role of audience; writing in a clear, concise, and appropriate style; and revising texts to improve their effectiveness. Prerequisite: ENGL 1301, ENGL 1302.

ENGL 3384 STRUCTURE OF MODERN ENGLISH (3-0) Introduction to the grammatical structure of modern English at the level of the word, clause, and discourse, with applications for effective writing.

ENGL 3385 SPECIAL TOPICS IN RHETORIC (3-0) Various topics including legal rhetorics, American Civil Rights rhetorics, the rhetorics of Cybercultures, and the rhetorics of print and electronic essays, fiction, poetry, advertisements, or video and film. May be repeated for credit when content changes.

ENGL 3390 HONORS COLLOQUIUM (3-0) An interdisciplinary course designed to meet

the needs of advanced undergraduates in the Honors College. Prerequisite: participation in the Honors College and/or permission of instructor.

ENGL 4301 HISTORY OF THE ENGLISH LANGUAGE (3-0) The sounds and structure of the English language from pre-history to the present.

ENGL 4307 TOPICS IN AMERICAN LITERATURE BEFORE 1800 (3-0) May concentrate on a topic, on a particular historical era, or on one to three significant authors. May be repeated for credit when content changes.

ENGL 4308 SELECTED AMERICAN AUTHORS AFTER 1910 (3-0) An intensive study of one to three authors. May be repeated for credit as course content changes.

ENGL 4311 AMERICAN LITERATURE, 1800-1860 (3-0) Literary movements, such as Romanticism, in their cultural contexts; may include essays, journals, and poetry by transcendentalists such as Emerson, Thoreau, and Fuller, as well as the fiction, poetry, autobiography, and/or criticism of such writers as Poe, Hawthorne, Douglass, Stowe, and Melville.

ENGL 4312 AMERICAN LITERATURE, 1860-1910 (3-0) Literary movements such as Realism and Naturalism in their cultural contexts; may draw upon such writers as Dickinson, Whitman, Twain, Howells, Crane, Chopin, Gilman, and James.

ENGL 4313 AMERICAN LITERATURE 1900 - PRESENT (3-0) Examines modern and contemporary literary movements in their cultural contexts. Genres studied may include fiction, poetry, drama, and literary criticism.

ENGL 4321 MEDIEVAL BRITISH LITERATURE (3-0) Literature of England from its beginnings to the end of the 15th century. Formerly listed as 3303. Credit cannot be received for both 3303 and 4321.

ENGL 4322 SIXTEENTH-CENTURY BRITISH LITERATURE (3-0) Poetry, prose, and drama of the 16th century. The works of Spenser, Sidney, or the sonneteers may be emphasized.

ENGL 4323 SEVENTEENTH-CENTURY BRITISH LITERATURE (3-0) Seventeenth century prose, poetry, drama. May include a study of Milton.

ENGL 4324 RESTORATION AND EIGHTEENTH-CENTURY LITERATURE (3-0) Literature of England from 1660 to 1798, centering on various representative works with attention to literary forms and historical contexts.

ENGL 4325 CHAUCER (3-0) Works of the 14th-century English poet Geoffrey Chaucer. Examination of his works, intellectual milieu, and literary influence.

ENGL 4326 SHAKESPEARE (3-0) Selected plays by Shakespeare in their historical and literary context. May include his nondramatic works.

ENGL 4330 ADVANCED LITERARY WRITING (3-0) Intensive creative writing in one literary genre in formats that may include workshop, lecture, and individual

conference. Students will write in a single literary form, including poetry, prose fiction, creative nonfiction, autobiography, drama, or other genre. May be repeated for credit as course content changes. Prerequisite: ENGL 3375.

ENGL 4331 THE BRITISH ROMANTICS (3-0) Works of authors from the last decades of the 18th century to well into the 19th century. The works of one or more of the major Romantic poets (Blake, Wordsworth, Coleridge, Byron, Shelley, Keats) may be emphasized.

ENGL 4332 THE VICTORIANS (3-0) Literature of England, 1830-1900. May focus on major figures, major themes, or issues in social, ethical, and aesthetic thought.

ENGL 4333 LITERARY GENRES (3-0) May include such topics as modern British drama, the continental novel, patterns of narrative. May be repeated for credit as course content changes.

ENGL 4334 SPECIAL TOPICS IN BRITISH LITERATURE (3-0) May include such topics as the Arthurian theme in literature, innocence and experience, love as a theme in literature. May be repeated for credit as course content changes.

ENGL 4336 SPECIAL TOPICS IN AMERICAN LITERATURE (3-0) Important themes, movements, regions, genres, or cross-cultural relationships. May be repeated for credit when course content changes.

ENGL 4337 SPECIAL TOPICS IN COMPARATIVE LITERATURE (3-0) May include such topics as literature and psychoanalysis or literature and revolution. May be repeated for credit as course content changes.

ENGL 4338 TWENTIETH-CENTURY BRITISH LITERATURE (3-0) Literature of England from the turn of the century to the present focusing on major figures, major themes, or literary movements. May include major Irish works.

ENGL 4339 RHETORIC AND COMPOSITION: HISTORY, THEORY, AND PRACTICE (3-0) Surveys the history of rhetorical theory and practices from its earliest formulations in Greek and Roman antiquity to its current manifestations in composition studies.

ENGL 4340 LITERATURE BY WOMEN (3-0) Focus on women's writing in a particular genre or historical period or on a concept or issue of importance to women writers. May be repeated for credit as subject matter changes. Offered as ENGL 4340 and WOMS 4340; credit will be granted in only one department

ENGL 4344 TOPICS IN ENGLISH LANGUAGE STUDY (3-0) Analysis of texts primarily for their use of language or their engagement with linguistic issues. May include Old English, the emergence of the vernacular, literature and dialect, global English, or slang. May be repeated for credit as course content changes.

ENGL 4345 TOPICS IN CRITICAL THEORY (3-0) May include the study of major figures (e.g., Agamben, Barthes, Foucault, Levinas, Said, Spivak) or topics (e.g., aesthetics, digital technology, disability studies,

feminist view of science, film theory). May be repeated for credit as course content changes.

ENGL 4346 TOPICS IN THEORIES OF LANGUAGE AND DISCOURSE (3-0) May include the in-depth study of a major theorist (e.g., Dennett, Halliday, Lakoff, Pinker, Pratt, Quine) or a broader survey of related theories (e.g., discourse analysis; evolutionary theories of language and mind; integrational linguistics; speech-act theory) that investigate "language-in-general" and/or "language-in-use" and that question the limitations of these terms. May be repeated for credit as course content changes.

ENGL 4350 TOPICS IN FILM AND LITERATURE (3-0) An introduction to the study of film and the techniques of film analysis. Compares films to literary or other texts. Considers films in relation to history, critical theory, and culture. Topics may include Nature in Film, Shakespeare in Film, American Indian Film and Literature, the British Novel as Film. May be repeated for credit as content changes.

ENGL 4355 LITERARY CRITICISM I (3-0) Readings and discussion of classics of literary criticism from Plato through Pater. Primary focus on traditional answers to the question of the nature and function of the literary critic. Formerly taught as 3327. Credit cannot be received for both 3327 and 4355.

ENGL 4356 LITERARY CRITICISM II (3-0) Readings,discussion and practical application of 20th-century and contemporary methodologies such as new criticism; formalism; structuralism; poststructuralism; reader-response criticism; psychoanalysis; Marxism; theories of gender, sexuality, and race; and cultural studies.

ENGL 4365 CHILDREN'S LITERATURE (3-0) A survey of literature for children; analysis of outstanding authors and illustrators of that literature. Designed for prospective elementary teachers.

ENGL 4366 YOUNG ADULT LITERATURE (3-0) A survey of literature for adolescents and young adults, with attention to theoretical perspectives and cultural contexts. Designed for prospective middle-school and secondary-school teachers.

ENGL 4370 THEORY AND PRACTICE: READING/COMPOSITION (3-0) A series of workshops in the theory and practice of reading and composition.

ENGL 4371 ADVANCED ARGUMENTATION (3-0) Examines classical and contemporary theories of argumentation and applies them to academic and non-academic writing. Assignments focus on both the analysis and the production of argumentative discourse in various forms (e.g., academic essays, advertising, editorials, political speeches, etc.)

ENGL 4374 WRITING, RHETORIC, AND MULTIMEDIA AUTHORING II (3-0) Advanced study of the rhetorical structure of multimedia. An emphasis on composing writing-intensive and research-oriented projects for academic, business, and creative audiences. Prerequisite: ENGL

3374.

ENGL 4377 TOPICS IN SCIENCE & TECHNOLOGY (3-0) Explores issues in the rhetorical, cultural, and aesthetic dimensions of science and technology. May be repeated for credit as course content changes.

ENGL 4380 CLASSICAL LITERATURE (3-0) Greek and Roman masterpieces of prose and poetry, especially those which most deeply affected the development of Western literature.

ENGL 4381 MEDIEVAL LITERATURE (3-0) Various aspects of Western literature from the Fifth to the end of the 15th century. May focus on major figures and their milieu and heritage or on particular genres, themes, or topics.

ENGL 4382 RENAISSANCE & BAROQUE LITERATURE (3-0) Aspects of Western literature of the 16th and 17th Centuries. May focus on Petrarchan, anti-Petrarchan, Platonic, and anti-Platonic poetry; meditative poetry; drama or the relationship of literature and the arts, with special attention to Mannerism and Baroque and Rococo styles. Course may be repeated when content changes.

ENGL 4383 NEOCLASSICISM & ROMANTICISM (3-0) Tenets and dicta of Neoclassicism with examples from the drama, satire, and epic works from the period of Corneille through the 18th century; the growth of Romanticism from its emergence in Enlightenment thought through its displacement of Realism, with emphasis on English, French, German, Italian, and Spanish poetry, fiction, drama, and essay.

ENGL 4384 REALISM & NATURALISM (3-0) Realistic and Naturalistic fiction and drama from their beginnings in Romanticism through their displacement by Impressionism. Examples drawn from the literature of France, Germany, Russia, Italy, Spain, England, and the Americas.

ENGL 4385 MODERNISM (3-0) Major works of the early and mid-twentieth century in Europe that belong to the movement known as Modernism. May include the study of Freud and literature, Impressionism, Surrealism, and Existentialism.

ENGL 4386 DANTE (3-0) In depth study of The Divine Comedy and The New Life as the culminating works of the Middle Ages.

ENGL 4387 CONTEMPORARY LITERATURE (3-0) Contemporary literary forms and movements.

ENGL 4388 MAJOR FIGURES IN COMPARATIVE LITERATURE (3-0) Works by writers who have contributed significantly to world literature. May be repeated for credit with departmental permission.

ENGL 4390 INTERNSHIP IN ENGLISH (0-9) Provides the student with an opportunity to apply academic skills learned in English classes to practical situations by working in a business related to the discipline.

ENGL 4391 LITERATURE CONFERENCE COURSE (3-0) Requires permission of the department chair and the instructor.

ENGL 4394 HONORS THESIS/SENIOR PROJECT (0-0) Required of all students in the University Honors College. During the senior year, the student must complete a thesis or project of equivalent difficulty under the direction of a faculty member in the major department.

ENGL 4399 SENIOR SEMINAR (3-0) Capstone course for English majors. A writing-intensive, seminar-style, in-depth study of a topic. Content may consist of a figure or figures, a period, a literary movement, a thematic, or a critical theory. Prerequisite: ENGL 2350 and completion of 18 hours of required 3000 - 4000 level English courses.

ENGR 1114 GEN ENGI (0-0)

ENGR 1114 GEN ENGI (0-0)

ENGR 1204 ENGINEERING FIRST YEAR SEMINAR (2-0) Introduction to basic engineering concepts, engineering and its many subfields, ethical responsibilities, creativity and design. Self-management and academic skills necessary for academic and professional success.

ENGR 2100 SUPERVISED ENGINEERING WORK EXPERIENCE (1-0) Course is for cooperative education students in engineering to be taken in the semester or summer they are employed. Each student will prepare a technical report based upon their work experience. Students who complete the cooperative program will receive certificates and this will be entered on their transcript. Prerequisite: acceptance into and continuance in the Engineering Cooperative Education Program. May be repeated.

ENGR 2181 SOPH EE LAB I (0-0)

ENGR 2183 SOPH YR EE LAB (0-0)

ENGR 2242 DES GEOMETRY (0-0)

ENGR 2281 ENGI DRAWING (0-0)

ENGR 2341 ENGI DRAW (0-0)

ENGR 2342 DESC GEOM (0-0)

ENGR 3000 SUPERVISED ENGINEERING WORK EXPERIENCE (0-0) Course is for cooperative education students in engineering to be taken in the semester or summer they are employed. Each student will prepare a technical report based upon their work experience. Students who complete the cooperative program will receive certificates and this will be entered on their transcript. Prerequisite: acceptance into and continuance in the Engineering Cooperative Education Program. May be repeated.

ENGR 3100 SUPERVISED ENGINEERING WORK EXPERIENCE (1-0) Course is for cooperative education students in engineering to be taken in the semester or summer they are employed. Each student will prepare a technical report based upon their work experience. Students who complete the cooperative program will receive certificates and this will be entered on their transcript. Prerequisite: acceptance into and continuance in the Engineering Cooperative Education Program. May be repeated.

ENGR 4100 SUPERVISED ENGINEERING WORK EXPERIENCE (1-0) Course is for cooperative education students in engineering to be taken in the semester or summer they are employed. Each student will prepare a technical report based upon their work experience. Students who complete the cooperative program will receive certificates and this will be entered on their transcript. Prerequisite: acceptance into and continuance in the Engineering Cooperative Education Program. May be repeated.

ENGR 4102 ENGINEERING ENTREPRENEURSHIP (1-0) Topics include special problems of newly formed firms, planning, start-up business considerations, business strategy, management basics, and business plan design. Students will engage in business and entrepreneurship training, become aware of basic business operations, and learn about inventions, intellectual property, licensing, the patenting process and international patenting, as well as high-tech marketing. Opportunities in university environments will be discussed including incubation centers and patent licensing. Other topics include papers, legal issues, Small Business Innovation Research (SBIR) proposal design, SBIR funding from National Science Foundation (NSF), National Institutes of Health (NIH), and others, the review process, reporting, local high-tech business accelerators, venture plans, and venture capital. Classes will feature lectures from College of Engineering and College of Business faculty, and experts from industry.

ENGR 4391 AUTONOMOUS VEHICLE SYSTEM DEVELOPMENT (3-0) Introduction to unmanned (aerial, ground, surface and underwater) AVS (Autonomous Vehicles Systems), their history, missions, capabilities, types, configurations, subsystems, & the disciplines needed for AVS development & operation. Application through interdisciplinary team projects pertaining to development of AVS. This course is team-taught by faculty from various engineering departments. Prerequisite: Junior standing (60 or more hours) and admission to a professional engineering program.

ESOL 4300 ACADEMIC WRITING (3-0) Development of academic writing practices common to advanced study and research environments in American universities. Include review of relevant points of English grammar and development of argumentation styles common to academic writing. Open only to advanced undergraduates/beginning graduate students for whom English is not their native language. This course may not be used for credit toward any degree program.

ESOL 4301 ACADEMIC PRESENTATION SKILLS (3-0) Development of presentation skills useful for advanced study and research in American universities. Topics include public speaking and pronunciation, use of visual aids in oral presentations, abstract writing, and CV development. Open only to advanced undergraduates/beginning graduate students for whom English is not their native language. This course may not be used for credit toward any degree program.

ESST 2300 INTRODUCTION TO ENVIRONMENTAL & SUSTAINABILITY

STUDIES (3-0) Introduces major topics, questions, issues and methods within interdisciplinary and cross-disciplinary environmental studies. Includes a study of some of the most significant texts, studies, practices, and creative works from at least four different fields as they pertain to questions of environment, ecology, and sustainability. Features guest lectures by faculty teaching courses within the Environmental & Sustainability Studies minor.

EXCH 1191 EXCHANGE COURSE (0-0)

EXCH 1291 EXCHANGE COURSE (0-0)

EXCH 1391 EXCHANGE COURSE (0-0)

EXCH 1491 EXCHANGE COURSE (0-0)

EXCH 1591 EXCHANGE COURSE (0-0)

EXCH 2191 EXCHANGE COURSE (0-0)

EXCH 2291 EXCHANGE COURSE (0-0)

EXCH 2391 EXCHANGE COURSE (0-0)

EXCH 2491 EXCHANGE COURSE (0-0)

EXCH 2591 EXCHANGE COURSE (0-0)

EXCH 3191 EXCHANGE COURSE (0-0)

EXCH 3291 EXCHANGE COURSE (0-0)

EXCH 3391 EXCHANGE COURSE (0-0)

EXCH 3491 EXCHANGE COURSE (0-0)

EXCH 3591 EXCHANGE COURSE (0-0)

EXCH 4191 EXCHANGE COURSE (0-0)

EXCH 4291 EXCHANGE COURSE (0-0)

EXCH 4391 EXCHANGE COURSE (0-0)

EXCH 4491 EXCHANGE COURSE (0-0)

EXCH 4591 EXCHANGE COURSE (0-0)

EXCH 4691 EXCHANGE COURSE (0-0)

EXSA 0101 ARCHERY (0-2)

EXSA 0105 BADMINTON (0-2)

EXSA 0106 BRAZILIAN JIU-JITSU (0-1) This course is designed to provide students instruction in the art of Brazilian jiu-jitsu as popularized in the Ultimate Fighting Championship (UFC). Techniques, as well as live grappling in both the Gi (traditional martial arts uniform) and No-Gi (shorts and T-shirt) format will be taught. Males and females of all skill levels are welcome. Come learn one of the most dynamic and effective martial arts in a comfortable and welcoming atmosphere with a national and international competitor.

EXSA 0107 MARTIAL ARTS (0-2)

EXSA 0108 BASKETBALL (0-2)

EXSA 0120 BOWLING (0-2)

EXSA 0140 GOLF (0-2)

EXSA 0145 BEGINNING FENCING (0-2)

EXSA 0154 FITNESS WALK (0-2)

EXSA 0156 JOGGING FOR FITNESS (0-2)

EXSA 0157 AEROBIC DANCE (0-2)

EXSA 0159 EXERCISE AND SPORT FOR THE HANDICAPPED (0-2)

EXSA 0160 STEP AEROBICS (0-2)

EXSA 0163 YOGA (0-2)

EXSA 0164 CARDIO KICKBOXING (0-2)

EXSA 0165 PILATES (0-2) This course is designed to improve muscular strength, endurance, flexibility, posture and overall joint mobility as well as stress reduction techniques. Students will be provided with a basic working knowledge of Pilates positions, the benefits associated with Pilates, and knowledge to all students the basic skills needed to pursue independent training as part of their lifetime fitness program.

EXSA 0166 RACQUETBALL (0-2)

EXSA 0167 SOCCER (0-2)

EXSA 0168 INTERMEDIATE YOGA (0-1) Previous yoga experience preferred but not required.

EXSA 0169 ADVANCED PILATES (0-1) This course is designed to improve muscular strength, endurance, flexibility, posture, and overall joint mobility as well as stress reduction techniques. Students will be provided with an advanced working knowledge of Pilates positions, the benefits associated with Pilates, and knowledge of the advanced skills needed to pursue independent training as part of a lifetime fitness program.

EXSA 0170 SWIMMING: BEGINNING (0-2)

EXSA 0171 WATER POLO (0-2)

EXSA 0172 SWIMMING FOR FITNESS (0-2)

EXSA 0174 WATER AEROBICS (0-2)

EXSA 0175 BODY SCULPTING/CORE STRENGTH (0-1) This course is designed to improve total body muscular strength and flexibility. This is an all over body workout using a variety of exercise equipment such as hand weights, tubing, stability balls, balance boards, bosu, and bars. Students will be provided with a basic working knowledge of proper biomechanics, anatomy, nutrition, and the benefits associated with long term strength training.

EXSA 0176 ZUMBA INTERVAL TRAINING (0-1) Zumba fuses hypnotic Latin rhythms and easy to follow moves to create a dynamic workout system. Zumba students achieve long term benefits while experiencing an absolute blast in one exhilarating class of caloric-burning, heart-racing, muscle-pumping, body-energizing, awe-inspiring movements meant to engage and captivate for life!

EXSA 0177 TENNIS (0-2)

EXSA 0178 TENNIS: ADVANCED (0-2)

EXSA 0180 VOLLEYBALL (0-2)

EXSA 0181 VOLLEYBALL: ADVANCED (0-2)

EXSA 0184 WEIGHT TRAINING (0-2)

EXSA 0189 INTERCOLLEGIATE ATHLETICS (0-2)

EXSA 0191 DESIGNATED ACTIVITIES (0-2)

EXSA 1116 PACE: EXERCISE AT YOUR OWN PACE (0-1) Exercise and conditioning class for all levels of activity emphasizing individual physical needs and adapting exercise to meet those needs. For additional information: pmaxmwell@uta.edu.

EXSA 1118 BOOT CAMP AEROBICS (0-1) Boot camp aerobics.

EXSA 1119 CO-ED SELF DEFENSE (0-1) Co-ed Self Defense.

EXSA 1220 LIFEGUARD TRAINING (1-2)

EXSA 1246 SELF DEFENSE FOR WOMEN (1-2)

EXSA 1247 EXERCISE & WEIGHT MANAGEMENT (0-2) This class is designed to provide students with the practical skills and knowledge involving exercise and weight management. Along with a variety of fun and exciting exercise activities, fundamental nutrition and behavior/environmental modification techniques will also be discussed. Additional information: mevans@uta.edu.

EXSA 1249 SCUBA DIVING (1-2)

EXSA 1259 ADVANCED SCUBA (1-2)

FINA 3313 BUSINESS FINANCE (3-0) Emphasizes the financing and investment decisions of the financial manager. Topics include financial statement analysis, working capital management, capital budgeting, long-term financing, and international finance. Prerequisite: ECON 2306, ACCT 2302, MATH 1316 (or permission of instructor), and 60 credit hours.

FINA 3315 INVESTMENTS (3-0) Principles governing the proper investment of personal and institutional funds, information sources, security analysis, exchanges and regulations. Formerly FINA 4313; credit will be granted only once. Prerequisite: ECON 2306, ACCT 2302, and 60 credit hours.

FINA 3317 FINANCIAL INSTITUTIONS AND MARKETS (3-0) The structure of financial institutions and markets in the United States and their interactions. How and why the institution has evolved, how it fits within the financial system, how it operates, what is its current impact, and what may its future role be. Formerly FINA 4314; credit will be granted only once. Prerequisite: ECON 2306, ACCT 2302, and 60 credit hours.

FINA 4191 STUDIES IN FINANCE (1-0) Advanced studies, on an individual basis, in the various fields of finance. Prerequisite: 90 credit hours and permission of department. May be repeated for credit with consent of department chair.

FINA 4291 STUDIES IN FINANCE (2-0) Advanced studies, on an individual basis, in the various fields of finance. Prerequisite: 90 credit hours and permission of department. May be repeated for credit

with consent of department chair.

FINA 4311 MONEY AND CAPITAL MARKETS (3-0) This in-depth analysis of the development, characteristics, and significance of money and capital markets explores how the markets interrelate, interact, and impact the financing/investment decisions that are the basis of finance. Prerequisite: FINA 3313.

FINA 4315 ADVANCED BUSINESS FINANCIAL ANALYSIS (3-0) To develop an ability to recognize financial problems, analyze financial data, formulate alternative solutions, and render financial decisions. Case materials are used in studying financial problems. Management of investment in current and fixed assets, planning of profits, forecasting of cash requirements, capital budgeting, planning of methods of financing and capital structure, dividend policy, valuation of assets, and mergers. Prerequisite: FINA 3313.

FINA 4318 PORTFOLIO MANAGEMENT AND SECURITY ANALYSIS (3-0) This course develops an understanding of portfolio management and security analysis by focusing on the analytical techniques and empirical results of investment theorists and practitioners. Risk, efficiency, diversification, fundamental analysis, and technical analysis as they apply to corporate finance, international finance, and investments will be examined. Prerequisite: FINA 3313.

FINA 4319 FINANCIAL DERIVATIVES (3-0) Topics included in this course are an introduction to options and futures markets, investment and risk management strategies using these derivative products, and pricing of options and futures contracts. Additional coverage includes basic swap agreements, exotic options, and corporate risk management. Prerequisite: FINA 3313.

FINA 4320 CAPITAL BUDGETING (3-0) Development of the logic and methodology of the capital budgeting decision. Measurement of cash flows, present value techniques, evaluation of capital investments, ranking of capital investments, analysis of risk, and administration of capital investments. Prerequisite: FINA 3313.

FINA 4324 INTERNATIONAL CORPORATE FINANCE (3-0) Issues and questions which concern financial management of international corporations. Analysis of the financing of investment abroad and the management of assets in differing financial environments. The foreign investment decision, cost of capital and financial structure for multinational decision making, management of foreign subsidiary working capital, and financial control of multinational operations. Prerequisite: FINA 3313.

FINA 4331 SEMINAR IN FINANCE (3-0) Readings and discussion of special topics in Finance. Prerequisite: Junior or senior standing and consent of instructor. May be repeated for credit with consent of department chair.

FINA 4351 FINANCIAL MODELING (3-0) The focus is on computer applications in the major areas of finance. Financial Modeling integrates financial theory and practice

through software-driven hands-on experience. Students will learn how to utilize financial concepts and practice within a software framework. Core concepts are drawn from corporate finance, investments, and financial institutions and markets. Examples of topics include: financial statement forecasting and consolidation, mergers and acquisitions, statistical approaches in finance, the Capital Asset Pricing Model, portfolio analysis, predictive models of different risk categories, bond and stock valuation, and market interest rate behavior. Learning is enhanced using a lecture-lab format. Prerequisite: FINA 3313.

FINA 4391 STUDIES IN FINANCE (3-0) Advanced studies, on an individual basis, in the various fields of finance. Prerequisite: 90 credit hours and permission of department. May be repeated for credit with consent of department chair.

FINA 4393 FINANCE INTERNSHIP (3-0) Practical training in finance. Analysis of theory applied to real life situations. May be used as an advanced business elective only; graded on a pass/fail basis. No credit will be given for previous experience or activities. May not be repeated for credit. Prerequisite: FINA 3313, 60 credit hours, and consent of department internship advisor.

FREN 1441 BEGINNING FRENCH I (3-2) Multimedia immersion in the culture and language of French-speaking countries. Designed to enable students to understand and communicate effectively in French at the beginning level. No prerequisites.

FREN 1442 BEGINNING FRENCH II (3-2) Continuation of beginning French. Prerequisite: FREN 1441 with a grade of C or better.

FREN 2313 INTERMEDIATE FRENCH I (3-0) Continued immersion in the culture and language of French -speaking countries. Application of strategies and technology in mastering listening, speaking, reading, and writing at the intermediate level. Prerequisite: FREN 1442 with a grade of C or better.

FREN 2314 INTERMEDIATE FRENCH II (3-0) Continuation of intermediate French. Prerequisite: FREN 2313 with a grade of C or better.

FREN 2391 INDEPENDENT STUDY (0-0) Prerequisite: Permission.

FREN 3300 PHONOLOGY & PRONUNCIATION (3-0) This course provides a practical introduction to sound patterns in standard, metropolitan French, stressing the acquisition of pronunciation. Students will also be introduced to theoretical aspects of French phonetics and phonology. Prerequisite: FREN 2314 with a grade of C or better.

FREN 3303 ADVANCED FRENCH CONVERSATION (3-0) Practice in oral expression with an introduction to practical phonetics and vocabulary building. Of special interest to students who wish to improve their skill in pronunciation, comprehension, and oral expression. Credit will not be granted to native speakers of French. Prerequisite: FREN 2314 with a grade of C or better.

FREN 3304 GRAMMAR AND COMPOSITION (3-0) Introduction to the analysis of literary texts with emphasis on reading comprehension, grammar, writing skills and compositional techniques. Lab attendance required. Strongly recommended prior to 3311, 3312, and 4000 level courses. Credit will not be granted to native or heritage speakers of French. Prerequisite: FREN 2314 with a grade of C or better.

FREN 3305 FRENCH CULTURE AND CIVILIZATION (3-0) Historical development of the social, institutional, intellectual, and artistic life of France from inception to the present. Credit will not be granted to native or heritage speakers of French.Prerequisite: FREN 2314 with a grade of C or better.

FREN 3310 INTRODUCTION TO LITERATURE (3-0) Principles of literary analysis pertaining to genre, concepts of literary structure, language, and criticism through examination of selected works. Prerequisite: FREN 2314 with a grade of C or better.

FREN 3311 FRENCH LITERATURE AND CULTURE I (3-0) The main currents of French literature, art, and thought from the Middle Ages through the 18th century in relation to French political and social history. Prerequisite: FREN 2314 with a grade of C or bettter.

FREN 3312 FRENCH LITERATURE AND CULTURE II (3-0) The main currents of French literature, art, film, and thought of the 19th and 20th Centuries in relation to French political and social history. Prerequisite: FREN 2314 with a grade of C or better.

FREN 3316 TOPICS IN CITIES OF FRANCE (3-0) Study of the representation of place, as a geographical, political and cultural construct, in literature, the visual arts (including film), and the media. Topics may include the city, various regions of France, the metro, public spaces, various institutions. May be repeated for credit when content changes. Prerequisite: FREN 2314 with a grade of C or better.

FREN 3318 PROBLEMS OF IDENTITY (3-0) Study of the individual and/or group from the Middle Ages to the present. Topics may include the child, the bourgeoisie, the immigrants, the courtesan. May be repeated for credit when content changes. Prerequisite: FREN 2314 with a grade of C or better.

FREN 3320 LOCALIZATION AND TRANSLATION I (3-0) Introduction to cultural and linguistic issues in the translation of French language texts. Students will explore current technologies used in various real-world translation contexts and how to adapt texts, products, and services to the locale for which they are intended. Prerequisite: FREN 2314 with a grade of B or better.

FREN 3321 LOCALIZATION AND TRANSLATION II (3-0) Continued study of cultural and linguistic issues in the translation of French and English language texts. Systematic development of advanced skills in localization and computer-aided translation and in using TMX/TBX (international standards for translation memory and terminology exchange) tools.

Translation practice, individually and in translation teams, with increasingly longer and more specialized texts. Prepares localization and translation specialists for real-world careers in the language-services industry. May be repeated once. Prerequisite: FREN 3320 with a grade of B or better.

FREN 3391 CONFERENCE COURSE (3-0) Independent study; consultation with instructor on a regular basis. May be repeated for credit. Prerequisite: Permission.

FREN 4314 ADVANCED FRENCH GRAMMAR AND COMPOSITION (3-0) A detailed study of French grammar with practice in composition requiring original themes, essays, and research papers. An overview of the history of the French language and the influences of other languages and cultures on its evolution. Recommended for senior French majors. Prerequisite: FREN 3304, FREN 3311 or FREN 3312 with a grade of C or better.

FREN 4318 INTRODUCTION TO FRENCH LINGUISTICS (3-0) An introductory course on the linguistic structure of modern standard French, including phonology, morphology and syntax. Prerequisite: Any two 3000 level French courses with a grade of C or better.

FREN 4322 STUDIES IN THE SEVENTEENTH CENTURY (3-0) Political and artistic climate of a defining period in French culture. Classical doctrine and literature. FREN 3311 with a grade of C or better.

FREN 4324 TOPICS IN NINETEENTH-CENTURY FRENCH STUDIES (3-0) Major currents such as Romanticism, Realism, and Impressionism in literature and art. Emphasis on bourgeois tastes and institutions, the role of capitalism in the development of culture, and the commercial and representational construction of leisure. May be repeated for credit when content changes. Prerequisite: FREN 3312 with a grade of C or better.

FREN 4325 TOPICS IN 18TH CENTURY FRENCH STUDIES (3-0) Major currents such as Sensibility, Libertinism, the Republic of Letters, Exoticism, and Orientalism in literature and art.ÿ Patterns of French thought comprising the Enlightenment leading to the Revolution. May be repeated for credit when content changes. Prerequisite: FREN 3311 or FREN 3312 with a grade of C or better.

FREN 4328 TOPICS IN TWENTIETH-CENTURY FRENCH STUDIES (3-0) Cultural and literary output of France before and after the Second World War. Patterns of French thought, writing, and self-representation, New Europe, decolonization, and nationalism through various media. May be repeated for credit when content changes. Prerequisite: FREN 3312 with a grade of C or better.

FREN 4332 STUDIES IN MEDIEVAL AND RENAISSANCE CULTURE (3-0) Readings in modern French of Medieval and Renaissance French literature. Works include the adventures of King Arthur and the Knights of the Round Table, Gargantua, reflections on the self, friendship, education, and the "Other" in Montaigne's Essais, and the love poems of Ronsard. Emphasis on the

importance of religion, the evolution and the meaning of cathedrals and monasteries, and the effect of the discovery of the "New World" on perceptions of self and of community. Prerequisite: FREN 3311 with a grade of C or better.

FREN 4334 CONTEMPORARY FRENCH CULTURE (3-0) Social, political, and economic structures in France, with focus on current events relevant to the Francophone world. Prerequisite: two 3000-level courses or equivalent (FREN 3312 and FREN 3315 are strongly recommended) with a grade of C or better, or a knowledge of the language and consent of the instructor.

FREN 4335 BUSINESS FRENCH (3-0) Students learn to function in French in business environments, with emphasis on writing business letters, conducting telephone conversations and business meetings, using terminology for transactions in places such as banks, post offices, airports, and hotels. Video segments and interactive computer packages are used extensively to reinforce vocabulary and knowledge acquired through lectures, translations, and readings. Prerequisite: FREN 3515 and one additional 3000- or 4000-level course or equivalent (FREN 3304, 3311, 4314 strongly recommended) with a grade of C or better, or a knowledge of the language and the consent of the instructor.

FREN 4338 SELECTED TOPICS IN FRENCH LITERATURE OR CULTURE (3-0) May be repeated for credit when topic changes.

FREN 4339 ACQUISITION OF FRENCH (3-0) Theory and practice of language acquisition. Techniques needed to understand and analyze the sounds, vocabulary, and grammar of the French language. Primarily for students seeking teacher certification.

FREN 4391 CONFERENCE COURSE (0-0) Independent study in the preparation of a paper on a research topic and consultation with instructor on a regular basis. May be repeated for credit. Prerequisite: Permission.

FREN 4394 HONORS THESIS / SENIOR PROJECT (0-0) Required of all students in the University Honors College. During the senior year, the student must complete a thesis or a project under the direction of a faculty member in the major department. May not be repeated for credit.

GEOG 2401 WEATHER & CLIMATE (3-3) Processes that control weather and climate. Methods of describing and forecasting weather. Predicting severe weather, tornadoes, hurricanes, and floods. Offered as GEOG 2401 and GEOL 2401; credit will be granted only once.

GEOG 3350 READING THE LANDSCAPE (3-0) How historians and geographers identify and interpret clues in the landscape (such as place names, architecture, vegetation, transportation, field and street patterns) that reflect historical change and its social, economic, environmental and geographic consequences. Offered as GEOG 3350 and HIST 3350; credit will be granted only once.

GEOG 3355 ENVIRONMENTAL HISTORY OF THE UNITED STATES (3-0) People and the

natural environment from the colonial period to the present. Ecological change, conservation movements, and artistic and literary interpretations of landscape and nature. Listed as GEOG 3355 and HIST 3355; credit will be granted only once.

GEOG 3371 IMAGES OF THE SOUTHWEST (3-0) Examines the changing culture, architecture, and landscapes of the American Southwest as depicted in literature, art, film, television, and advertising, including the role of popular culture and commerce in creating and marketing a regional "Southwestern style." Offered as GEOG 3371 and HIST 3371; credit will be granted only once.

GEOG 4191 CONFERENCE COURSE (1-0) Topics assigned on an individual basis covering personal research or study in designated areas. Prerequisite: permission of the instructor.

GEOG 4291 CONFERENCE COURSE (2-0) Topics assigned on an individual basis covering personal research or study in designated areas. Prerequisite: permission of the instructor.

GEOG 4301 HISTORICAL GEOGRAPHY AND CARTOGRAPHY (3-0) An introduction to cultural and historical geography with an emphasis on cartography and the use of maps in research and teaching. Offered as GEOG 4301 and HIST 4301; credit will be granted only once.

GEOG 4310 GEOGRAPHY OF THE GREATER SOUTHWEST (3-0) Geography of the Greater Southwest to include Texas, New Mexico, Arizona, California, and Mexico. How the natural environment, cultural environment, and space itself have affected the history and development of the Southwest.

GEOG 4350 SPECIAL TOPICS IN MODERN GEOGRAPHY (3-0) Selected topics in an identified area of geography. The course may be repeated for credit.

GEOG 4391 CONFERENCE COURSE (3-0) Topics assigned on an individual basis covering personal research or study in designated areas. Prerequisite: permission of the instructor.

GEOL 1135 GEOLOGICAL LABORATORY (1-0) Experiments and exercises related to geological principles and problems. Prerequisite: permission of department.

GEOL 1136 GEOLOGICAL LABORATORY II (0-1) Experiments and exercises related to geological principles and problems of earth history. Prerequisite: permission of department.

GEOL 1137 GEOLOGICAL LABORATORY III (0-1) Experiments and exercises related to geological principles and problems of environmental science. Prerequisite: permission of department.

GEOL 1425 EARTH SYSTEMS (3-3) An integrated study of the earth, emphasizing interactions between plate tectonics, the atmosphere, the oceans, the biosphere, and human activity. Course material overlaps GEOL 1420, so credit will not be granted for both.

GEOL 1426 EARTH HISTORY (3-1) History of

the earth and evolution of life emphasizing the co-evolution of the atmosphere, oceans, and biosphere.

GEOL 1430 GLOBAL WARMING (3-1) Global environmental challenges confronting humanity such as pollution, depletion of natural resources, ecosystem deterioration, food production, and population growth.

GEOL 1450 INTRODUCTION TO OCEANOGRAPHY (3-1) The study of ocean basins and their origin, ocean currents, waves and tides, properties of sea water, and marine ecosystems, emphasizing the role of the ocean in the Earth system. Discussion of weekly ocean news, and incorporation of web-delivered current oceanographic data into the course material. Formerly offered as GEOL 3301 and GEOL 3184 and GEOL 2412; credit will be granted only once.

GEOL 2401 WEATHER & CLIMATE (3-3) Processes that control weather and climate. Methods of describing and forecasting weather. Predicting severe weather, tornadoes, hurricanes, and floods. Offered as GEOG 2401 and GEOL 2401; credit will be granted only once.

GEOL 2402 GEOSCIENCE AND GENESIS (3-1) The process and methodology of science; the history of life revealed in the rock record; the theory of evolution; creationist viewpoints and their Biblical foundations; objections to evolution; and issues relating to teaching evolution and creationism in the public schools.

GEOL 2404 GEOLOGIC HAZARDS (3-1) Processes producing earthquakes, floods, eruptions and landslides, and their effect on people.

GEOL 2405 HISTORY OF LIFE AND GEOLOGIC TIME (3-1) The succession of life as shown by the fossil record and explained by evolution. Methods and reliability of determining time and sequence of events.

GEOL 2406 NATURAL RESOURCES & SUSTAINABILITY (3-2) Energy, construction, agricultural, and hydrological resources are evaluated in terms of their production and use, including storage and disposal of waste. Emphasis is placed on the importance of preserving clean water, air and soils. The course will concentrate on what humans take from the Earth, the impacts it has on their environment, and what it takes to make the planet sustainable for human habitation.

GEOL 2410 PLANETARY GEOLOGY (3-1) The geology, history and landscapes of the terrestrial planets and satellites of the outer planets. Composition of the planets as a guide to the origin and evolution of the solar system.

GEOL 2414 THE GLOBAL ENVIRONMENT AND HUMAN HEALTH (3-1) This course will assess the impact on human health of: population growth and available resources; exposure to man-made harmful substances; and environmental degradation.

GEOL 2445 MINERALOGY (3-4) Elementary crystallography, mineral identification, mineral occurrences, mineral usage, and an introduction to optical mineralogy. Prerequisite: CHEM 1441.

GEOL 2446 IGNEOUS AND METAMORPHIC PETROLOGY AND PETROGRAPHY (3-4) Hand-specimen and microscope study of igneous and metamorphic rocks. Rock origins, tectonic controls, rock description, and interpretation of rock textures and structures. Prerequisite: GEOL 2445.

GEOL 3100 GEOSCIENCE PROFESSIONAL ORIENTATION (1-0) Review of various careers in the Geosciences, and how to prepare a resume, network, and interview. Principles to follow for on-the-job success. Class will involve field trips and guest lectures. Prerequisite: none.

GEOL 3313 OUTDOOR GEOLOGY (0-8) Geologic features measured and observed in the field, at locations to be announced, but normally in Texas and surrounding states. Emphasis will be on mapping geologic relationships and understanding regional geologic history. Prerequisite: GEOL 1425 or permission of instructor. Special fee to cover cost of transportation, food, and lodging.

GEOL 3316 ASTROBIOLOGY (3-0) This is an interdisciplinary course between astrophysics, biology, and geology. Topics include properties of life, origin and evolution of life on Earth, mass extinctions, extremophiles, search for life in the Solar System, space missions, stellar habitable zones, SETI, Fermi paradox, Drake equation. Prerequisites: PHYS 1441, 1442, 2315 and BIOL 3315, or permission by the instructor. Offered as BIOL 3316, GEOL 3316, and PHYS 3316; credit will be granted only once.

GEOL 3340 GEOLOGY FOR ENGINEERS (2-1) Introduction to geological materials and processes important to practice of civil engineering. Includes processes forming minerals and rocks; mechanics and deformation of rocks, weathering, erosion and soils; soil hazards, land subsidence and mass movements; groundwater hydrology, geochemistry and contamination; and rivers. Labs will include introduction to geologic materials and use of GIS software to store, analyze and display geologic and engineering data. Prerequisites: PHYS 1443 and CHEM 1465 or CHEM 1442.

GEOL 3387 FIELD GEOLOGY I. (4-4) Stratigraphic and structural mapping and analysis of data collected in the field. Taught for three weeks only in the summer session. Prerequisite: GEOL 2446, 3442, 3443. Special fee covers cost of transportation, room, and board while in the field.

GEOL 3388 FIELD GEOLOGY II (4-4) Mapping and analysis of igneous and metamorphic rock data as well as hydrologic, geochemical and mass wasting data collected in the field. Taught for three weeks after GEOL 3387 only in the Summer session. Prerequisite: GEOL 2446, 3442, 3443, and 3387. Special fee covers cost of transportation, room, and board while in the field.

GEOL 3402 DINOSAURS (3-1) Review of the evolution, environment and fossil record of dinosaurs and other extinct vertebrates. Field trip required. Prerequisite: GEOL 1425.

GEOL 3403 VOLCANOES AND VOLCANIC PROCESSES (3-1) Overview of volcanic

eruptions on Earth and other planets. Emphasis on activity from prehistoric to recent time and the effect on human populations and climate change. Prerequisite: GEOL 1425.

GEOL 3441 PALEONTOLOGY (3-3) Biology, morphology, and taxonomy of fossil invertebrates. Prerequisite: GEOL 1426, BIOL 1442.

GEOL 3442 STRATIGRAPHY AND SEDIMENTARY PETROLOGY AND PETROGRAPHY (3-3) An introduction to the description, origin, and historical interpretation of stratified rocks. Prerequisite: GEOL 2446 (or concurrent enrollment).

GEOL 3443 STRUCTURAL GEOLOGY (3-3) The genesis, classification, and description of structural features resulting from deformation of the earth's crust. Prerequisite: GEOL 2446 (or concurrent enrollment) and PHYS 1441 or PHYS 1443.

GEOL 4189 PROBLEMS IN GEOLOGY (1-0) Supervised undergraduate research in any one of the various fields of geology. May be repeated but will not meet the requirements of nine hours of 4000 courses as listed in the requirements for a B.S. degree in geology. Prerequisite: permission of the instructor

GEOL 4190 GEOSCIENCE INTERNSHIP (0-1) Work in geoscience for a commercial concern at least 20 hours per week for three months. Requirements include: writing a resume, learning how to interview and function on the job, and a report describing the work. Prerequisite: 16 hours of geology.

GEOL 4289 PROBLEMS IN GEOLOGY (2-0) Supervised undergraduate research in any one of the various fields of geology. May be repeated but will not meet the requirement of nine hours of 4000 courses as listed above. Prerequisite: permission of instructor.

GEOL 4301 MARINE GEOLOGY & GEOCHEMISTY (3-0) Geologic and geochemical processes of the oceans. Chemistry of seawater; geochemical and biogeochemical cycles; carbonate sediment production. Prerequisite: CHEM 1441 and CHEM 1442.

GEOL 4302 PLATE TECTONICS (3-0) Understanding our dynamic Earth through the study of seafloor spreading, subduction and continental collision. This course will examine the geophysical evidence for plate tectonics: magnetism, gravity, and heat flow; and will review the history of plate motions and their effect on climate, evolution, and the formation of natural resources. Prerequisite: GEOL 3443.

GEOL 4305 SELECTED TOPICS IN GEOLOGY (3-0) Geological topics not treated in the regular curriculum. Topic, format, and prerequisites to be determined by the instructor. May be repeated for geology elective credit as different topics are offered.

GEOL 4307 SEQUENCE STRATIGRAPHY (3-0) 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.

GEOL 4308 ENVIRONMENTAL GEOCHEMISTRY (3-0) The geochemistry of natural waters with emphasis on processes that control solute concentrations including complexation reactions, oxidation and reduction reactions, biogeochemistry, and chemical weathering reactions. Prerequisites: GEOL 2445 and CHEM 1441.

GEOL 4309 GEOMORPHOLOGY & QUATERNARY STRATIGRAPHY OF SEDIMENTARY SYSTEMS (3-0) 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, 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.

GEOL 4310 INTRODUCTION TO GEOCHEMISTRY (3-0) Geochemistry of the elements, processes governing distribution of elements within the earth, and chemical processes in sedimentary, metamorphic, and igneous environments. Prerequisite: GEOL 2446 and CHEM 1442.

GEOL 4320 HYDROGEOLOGY (3-0) Applied hydrogeology. Discussions of the hydrologic cycle, principles of groundwater flow including the mathematical approaches to groundwater flow modeling, relationships between geology and groundwater flow, groundwater chemistry, and groundwater exploration and development. Prerequisite: GEOL 3443 and MATH 2325.

GEOL 4322 CONTAMINANT HYDROGEOLOGY (3-0) 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 concurrent enrollment).

GEOL 4325 PALEOCLIMATE & CLIMATE CHANGE (3-0) 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. Prequisite: GEOL 1425, MATH 1426, and junior standing or permission of instructor.

GEOL 4330 UNDERSTANDING GEOGRAPHIC INFORMATION SYSTEMS (2-1) A practical introduction to GIS and methods of creating, maintaining and displaying spatial data using the ArcGIS software. This course replaces GEOL 4352; credit will not be granted for both. Prerequisite: junior standing.

GEOL 4331 ANALYSIS OF SPATIAL DATA (2-1) Analyzing spatial data using ArcGIS, Spatial Analyst, and 3-D Analyst, topological

surface analysis and modeling; 3-D visualization and viewscapes; spatial statistics and data quality management. Prerequisite: GEOL 4330.

GEOL 4332 GLOBAL POSITIONING SYSTEM (2-1) Review of the NAVSTAR Global Positioning System and its segments: space, operational control, and GPS receivers. Mechanics of the satellite constellation; GPS signal structure; datums 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.

GEOL 4333 REMOTE SENSING FUNDAMENTALS (2-1) 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 sending data with other data types in GIS. Prerequisite: GEOL 4330.

GEOL 4334 GEOGRAPHIC DATA ANALYSIS (3-0) Acquisition, processing and analysis of a set of spatial data selected by the student with approval of the instructor. A written report of the results is required. Prerequisite: GEOL 4330, 4331, 4333.

GEOL 4342 MICROFOSSILS & THE CORRELATION OF SEDIMENTARY ROCKS (3-0) 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.

GEOL 4346 BASIN ANALYSIS (3-0) Formation of sedimentary basins and evaluation of their economic potential in context of plate tectonics; paleogeography and paleoclimatology. Prerequisite: GEOL 3442, 3443.

GEOL 4350 STABLE ISOTOPE GEOCHEMISTRY (3-0) Principles 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. Prerequisite: CHEM 1442.

GEOL 4352 ANALYTICAL METHODS IN GEOCHEMISTRY (3-0) Principles 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. Prerequisite: CHEM 1442.

GEOL 4353 VOLCANOLOGY (2-3) A broad survey of volcanic rocks, landforms, products, minerals, volatiles, and processes at a generally descriptive to

semi-quantitative level. Introduces areas of interface with other branches of geology and with socioeconomic interest. Prerequisite: GEOL 2446.

GEOL 4360 GEOLOGICAL PROCESSES OF OCEANS (3-0) Sedimentation in the oceans, chemistry of seawater, geochemical cycles in the oceans, and physical and biological processes that relate to sediment production, origin of seafloor topography, and seafloor spreading. Prerequisite: GEOL 3442.

GEOL 4365 PHYSICAL OCEANOGRAPHY (3-0) Oceanographic instrumentation and measurement; 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.

GEOL 4393 HONORS THESIS/SENIOR PROJECT (0-0) Required of all students in the University Honors College. During the senior year, the student must complete a thesis or project under the direction of a faculty member in the major department.

GEOL 4402 COMPUTER MODELING IN EARTH SCIENCE (3-3) Computer modeling and visualization techniques applied to the earth sciences, including structural geology, stratigraphy, geophysics, climatology, paleontology, and environmental geology.

GEOL 4405 METEOROLOGY AND CLIMATOLOGY (3-3) A quantitative approach to the study of the structure, energy, and motions of the atmosphere. Prerequisite: MATH 1426 and junior standing, or permission of instructor.

GEOL 4408 ENV GEOCHM/PHY (3-3)

GEOL 4409 APPLIED GEOPHYSICS (3-3) Geophysical techniques including seismology, seismic stratigraphy, gravity, magnetic and electrical methods used to investigate selected geological problems.

GEOL 4443 SEDIMENTOLOGY (3-1) Analysis of sedimentary rocks. Focus on petrography, sedimentary structures, their interpretation, and recognition of sedimentary facies. Covers physical, chemical, and biological processes of sedimentation, as well as origin of sediments.

GERM 1441 GERMAN LEVEL I (3-2) Multimedia immersion in the culture and language of German-speaking countries. Designed to enable students to understand and communicate effectively in German at the beginning level. No prerequisites.

GERM 1442 BEGINNING GERMAN II (3-2) Continuation of beginning German. Prerequisite: GERM 1441 with a grade of C or better.

GERM 2313 INTERMEDIATE GERMAN I (3-0) Continued immersion in the culture and language of German-speaking countries. Application of strategies and technology in mastering listening, speaking, reading, and writing at the intermediate level. Prerequisite: GERM 1442 with a grade of C or better.

GERM 2314 INTERMEDIATE GERMAN II (3-0) Continuation of intermediate German. Prerequisite: GERM 2313 with a grade of C

or better.

GERM 3301 TOPICS IN GERMAN LITERATURE AND CULTURE IN TRANSLATION (3-0) Intellectual and literary trends in life and literature of German-speaking countries as reflected in text, film, and video. Topics: 20th century cinema, the Holocaust experience in literature and culture, women writers from the Enlightenment to the present, postwar in two Germanies, among others. May be repeated as topic varies. The course will be count only once, however, toward a minor in German. May be counted toward fulfilling major and/or core curriculum liberal arts elective requirements. Prerequisite: GERM 2314 with a grade of C or better.

GERM 3310 LOCALIZATION AND TRANSLATION I (3-0) Introduction to cultural and linguistic issues in the translation of German language texts. Students will explore current technologies used in various real-world translation contexts and how to adapt texts, products, and services to the locale for which they are intended. May be repeated once. Prerequisite: GERM 2314 with a grade of C or better.

GERM 3311 LOCALIZATION AND TRANSLATION II (3-0) Continued study of cultural and linguistic issues in the translation of German and English language texts. Systematic development of advanced skills in localization and computer-aided translation and in using TMX/TBX (international standards for translation memory and terminology exchange) tools. Translation practice, individually and in translation teams, with increasingly longer and more specialized texts. Prepares localization and translation specialists for real-world careers in the language-services industry. May be repeated once. Prerequisite: GERM 3310 with a grade of B or better.

GERM 3312 ADVANCED GERMAN GRAMMAR (3-0) A detailed study of German grammar. Prerequisite: GERM 2314 with a grade of C or better.

GERM 3313 TOPICS IN GERMAN CULTURE & CONVERSATION (3-0) Topics in German culture with emphasis on conversation and reading skills in German with grammar review. Course may be repeated for credit with departmental permission as topic varies. Credit will not be given to native speakers of German, except with permission of the department. Prerequisite: GERM 2314 with a grade of C or better.

GERM 3314 TOPICS IN GERMAN CULTURE AND COMPOSITION (3-0) Topics in German culture with emphasis on composition and reading skills in German with grammar review. Course may be repeated for credit with departmental permission as topic varies. Prerequisite: GERM 2314 with a grade of C or better.

GERM 3317 INTRODUCTION TO LITERATURE AND CULTURE STUDIES (3-0) Introduction to the study of literature and culture including approaches to texts, basic theoretical considerations, fundamentals of scholarship. Prerequisite: GERM 2314 with a grade of C or better.

GERM 3318 SPECIAL TOPICS IN GERMAN STUDIES I (3-0) German courses that may be

cross-period or thematically oriented like Kinderliteratur or Film but also those courses targeted at specific groups (e.g. Business, Science, etc.). Course may be repeated for credit with departmental permission as topic varies. May be counted toward fulfilling major and/or core curriculum liberal arts elective requirements.

GERM 3391 CONFERENCE COURSE (3-0) Independent study; consultation with instructor on a regular basis. May be repeated for credit. Prerequisite: consent of the department.

GERM 4313 STUDIES IN THE GERMAN LANGUAGE AND CULTURE I (3-0) Literary periods, genres, authors, and research themes. May include literature and thought before Goethe; Goethe and the Classical period; Romanticism, Poetic Realism, Naturalism; the German Novelle and drama; German opera; Kafka and the 20th century; German literature in the U.S. Continued practice in the four communication skills. May be repeated as topics and texts vary. Prerequisite: two 3000-level German courses with a grade of C or better.

GERM 4314 STUDIES IN THE GERMAN LANGUAGE AND CULTURE II (3-0) German-American language and culture, advanced grammar, German dialects. Topics in the history of the German language, discourse analysis, language and culture in German media. Continued practice in the four communication skills in German. May be repeated for credit as topics and texts vary. Prerequisite: two 3000-level German courses with a grade of C or better.

GERM 4317 GERMAN TRANSLATION (3-0) Introduction to the theory and practice of translation. Examples will cover a wide range of texts including literature, business, newspapers, etc. (May substitute for 4335). Prerequisite: GERM 3313 or 3314 and 3317 or 3318, with a grade of C or better.

GERM 4321 TOPICS IN LITERATURE & CULTURE (3-0) Topics in literary and cultural history from 750 to the present. Courses may focus on one area of the history of cultural (including literary) texts, or they may broadly survey the history of written texts in German-speaking Europe. Course may be repeated for credit as topic varies. (Strongly recommended for German and International Business majors.) No prerequisites. Students majoring in German read some texts in the original. Satisfies the core curriculum requirement in literature or as a liberal arts elective.

GERM 4322 SPECIAL TOPICS IN GERMAN STUDIES II (3-0) German courses that may be cross-period or thematically oriented, such as Culture of Obedience, Classical Tradition, or Woman Writers, etc., also those courses targeted at specific groups (e.g., business, science, etc.). Course may be repeated for credit with departmental permission as topic varies. (May substitute for 4334.) Prerequisite: one 3000 level German course or equivalent with a grade of C or better; or knowledge of the language and the consent of the instructor.

GERM 4334 THE CULTURE OF BUSINESS (3-0) Social, political, and economic structures in Germany; current events affecting business in the German-speaking

world, the relationship of U.S. and German business and intercultural communication. Media segments about international business in Germany are used as an aid in the acquisition of the basic vocabulary of business and economics. Prerequisite: one 3000 level German course with a grade of C or better.

GERM 4335 BUSINESS GERMAN (3-0) Students learn to function in business environments where German is used, with emphasis on the skills needed for writing business letters, conducting telephone conversations and business meetings, using terminology for transactions in places such as banks, post offices, airports, and hotels. Media segments are used to reinforce vocabulary and knowledge acquired through lectures, readings, conversations. Prerequisite: one 3000 level German course with a grade of C or better.

GERM 4339 THE ACQUISITION OF GERMAN (3-0) Theory and practice of acquisition of German. Techniques needed to understand and analyze the sounds, vocabulary, and grammar of the German language. Introduction to reading strategies, the development of oral communication skills, and writing strategies.

GERM 4391 CONFERENCE COURSE (0-0) Independent study in the preparation of a paper on a research topic; consultation with instructor on a regular basis. May be repeated for credit. Prerequisite: Permission.

GERM 4393 INTERNSHIP IN GERMAN (5-0) This internship course combines field-related experience in the business or service sector with an academic component. Students conceptualize a field project and work on-site. Coursework may include journal writing in German, outside readings, and formal presentations. Must be taken concurrently with GERM 4334, 4335, or a culture course as approved by department. Prerequisite: Permission.

GERM 4394 HONORS THESIS / SENIOR PROJECT (0-0) Required of all students in the University Honors College. During the senior year, the student must complete a thesis or a project under the direction of a faculty member in the major department. May not be repeated for credit.

GREK 1441 GREEK LEVEL I (3-2)

GREK 1442 GREEK LEVEL II (3-2) Prerequisite: GREK 1441 or equivalent.

GREK 2313 GREEK LEVEL III (3-0) Prerequisite: GREK 1442 or equivalent.

GREK 2314 GREEK LEVEL IV (3-0) Prerequisite: GREK 2313 or equivalent.

GREK 4335 TOPICS IN GREEK LITERATURE (3-0) Close reading of one or more Greek texts, with attention both to grammatical precision and to interpretation. Students should be able to read unaltered Greek.

GREK 4391 CONFERENCE COURSE (0-0) Advanced independent study in Greek literature. May be repeated for credit with departmental permission.

HEED 1230 FIRST AID / CPR / AED TRAINING (1-2) This course is designed to cover the components of Standard First Aid,

Cardio-Pulmonary Resuscitation (CPR) for the Professional Rescuer, and Automated External Defibrillator (AED) training. Certification is possible upon successful course completion. Offered as HEED 1230 and KINE 1230. Students seeking credit in HEED should enroll in HEED 1230 and students seeking credit in KINE should enroll in KINE 1230. Credit will not be granted for both courses.

HEED 1301 NUTRITION (3-0) Nutrients essential to an adequate diet and good health and the nutritive values of common foods are reviewed. Offered as BIOL 1301 and HEED 1301: credit will be granted for only one of these courses. Students seeking certification in Health Education must enroll in HEED 1301. Students seeking credit toward their science requirement must enroll in BIOL 1301. May not be used for biology grade point calculation or biology credit toward a BS degree in biology, microbiology, or medical technology.

HEED 1316 FOUNDATIONS OF HEALTH (3-0) Emphasis on interrelationship of physical, emotional, mental, social, and spiritual dimensions of health. Involves the analysis of personal health status and development of strategies for improving quality of life.

HEED 1340 HEALTHY LIFESTYLES (2-2) This course will present theoretical content related to a healthy lifestyle. Students will apply these concepts in laboratory sessions where they evaluate current health habits and develop a nutrition, exercise, and stress management plan to promote a healthy lifestyle. The laboratory section will also provide instruction with regards to proper technique and form for resistance training, flexibility and aerobic conditioning. Lifestyle related diseases and addictions such as cardiovascular disease, cancer, diabetes, substance abuse, sexually transmitted diseases and achievement and maintenance of optimal body composition will also be addressed. These problems will be discussed relative to social, cultural and ethnic concerns.

HEED 2300 STUDENT HEALTH PEER TRAINING (2-2) Train students to be peer counselors who will work as group leaders both on campus and in the community in the Fall and Spring Semesters. Students learn about alcohol and other drugs and their relationship to health and sex issues which prepare them for group presentations and in making referrals when necessary. Topics of training include alcohol and other drug use/abuse, sexually transmitted diseases (STDs), HIV/AIDS, acquaintance rape, smoking/tobacco cessation, eating disorders, suicide, and self-esteem. Prerequisite: permission of instructor.

HEED 2317 BASIC CONCEPTS IN HUMAN SEXUALITY (3-0) The physiological, psychological, and sociological aspects of human sexuality. Offered as BIOL 2317, HEED 2317, PSYC 2317, and WOMS 2317. Credit will be granted for one of these courses only. Students seeking certification in Health Education must enroll in HEED 2317. Students seeking credit toward their science requirement must enroll in BIOL 2317. May not be used for biology grade point calculation or biology credit toward a BS degree in biology, microbiology, medical technology, psychology, or sociology.

HEED 2330 CARE AND PREVENTION OF ATHLETIC INJURIES (3-0) An introduction to the profession of Athletic Training. Common sports-related injuries and illnesses will be discussed with an emphasis on the proper methods for prevention, recognition, and immediate care. Offered as HEED 2330 and KINE 2330. Kinesiology majors must take KINE 2330.

HEED 3301 SPORTS NUTRITION (3-0) 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.

HEED 3303 DRUGS AND BEHAVIOR (3-0) A survey of the psychoactive agents, their therapeutic uses, and social abuses. Alcohol, nicotine, caffeine, narcotics, hallucinogens, stimulants, and tranquilizers. Offered as BIOL 3303, HEED 3303, and PSYC 3303; credit will be granted only once. May not be used for biology grade point calculation or biology credit toward a B.S. degree in biology, microbiology, or medical technology. Students seeking certification in health education must enroll in HEED 3303.

HEED 3305 WOMEN'S HEALTH ISSUES (3-0) Will address specific issues of importance to women and their health, including growth and development, nutrition, reproductive health, pregnancy, chronic diseases, and relationship/family issues. Offered as HEED 3305 and WOMS 3305. Credit will be granted only once.

HEED 3330 CONSUMER HEALTH (3-0) Analysis of personal, social, cultural, economic, and political aspects of health. Topics covered include managed health care, health insurance, health services/products, doctor-patient communication, traditional vs. non-traditional medicine, diagnosis and treatment of chronic diseases, and health legislation.

HEED 4191 CONFERENCE COURSE (0-0) Topics assigned on an individual basis covering personal research or study in the designated area.

HEED 4192 SPECIAL TOPICS IN HEALTH (1-0) Designed to present topics in health not currently offered in existing curriculum. May be repeated for credit when the topic changes.

HEED 4291 CONFERENCE COURSE (0-0) Topics assigned on an individual basis covering personal research or study in the designated area. Prerequisite: permission of department chairperson.

HEED 4292 SPECIAL TOPICS IN HEALTH (2-0) Designed to present topics in health not currently offered in existing curriculum. May be repeated for credit when the topic changes.

HEED 4310 STRESS MANAGEMENT (3-0) Analysis of the psychophysiology of stress and the role of stress in the development of acute and chronic diseases. Examine personal and medical uses of stress management techniques.

HEED 4311 ENVIRONMENTAL HEALTH (3-0)

This course is a study of the basic principles of ecology as they relate to the general health of society. Topics including conditions of soil, water, and air - nationally and globally - will be discussed. The successful student will acquire a level of proficiency in appropriate health care techniques specific to environmental health concerns.

HEED 4312 HEALTH & HUMAN DISEASE (3-0) Basic principles of human diseases including cardiovascular disease, cancer, AIDS, influenza, and Alzheimer's. The role of infectious and communicable diseases in human history will also be discussed.

HEED 4320 STUDIES IN HEALTHY AGING (3-0) Emphasis on complex issues associated with aging and death. Topics include changes/losses related to specific stages of life; care-giving to the dying; pertinent legal issues; medical gerontology; other salient issues and problems concerning aging and death. This course is especially helpful to those students who plan careers in the medical profession.

HEED 4330 COMPREHENSIVE SEXUALITY EDUCATION (3-0) Explores contemporary issues in human sexuality (i.e., physiological, psychological, and sociological) and prepares those interested in teaching health education to teach sexuality education with diverse populations in a variety of settings (i.e., school or community agency). Students will increase their knowledge of sexuality and enhance their ability to educate about and promote sexual health. Students seeking certification in health must enroll in HEED 4330.

HEED 4340 PRINCIPLES OF HEALTH APPLICATIONS (3-0) Designed to integrate the information base of health studies into action plans for developing health education and promotion programs for organizations, agencies, and schools. Prerequisite: HEED 1316, junior standing or permission of instructor.

HEED 4357 HEALTH PSYCHOLOGY (3-0) This course provides a broad introduction to health psychology and its interface with the medical world. The course provides a balanced presentation of the important issues in the field, as well as specific content topics that are especially relevant today to better understand health and illness. Offered as BIOL 4357, HEED 4357, and PSYC 4357. Students seeking science requirement credit must enroll in BIOL 4357; students seeking Certification in Health must enroll in HEED 4357. Prerequisite: PSYC 1315 or BIOL 1333 or BIOL 1441 or BIOL 2457; junior standing recommended.

HEED 4391 CONFERENCE COURSE (0-0) Topics assigned on an individual basis covering personal research or study in the designated area. Prerequisite: permission of department chairperson.

HEED 4392 SPECIAL TOPICS IN HEALTH (3-0) Designed to present topics in health not currently offered in existing curriculum. May be repeated for credit when the topic changes.

HIST 1311 HISTORY OF THE UNITED STATES (3-0) An introduction to the political, social, economic, and cultural

history of the United States prior to 1865. This course is designed to help students understand and evaluate their society, comprehend the historical experience, and further develop reading and writing competencies and critical skills.

HIST 1312 HISTORY OF THE UNITED STATES (3-0) An introduction to the political, social, economic, and cultural history of the United States since 1865. This course is designed to help students understand and evaluate their society, comprehend the historical experience, and further develop reading and writing competencies and critical skills.

HIST 2301 HISTORY OF CIVILIZATION (3-0) (HIST 2311). Significant developments from prehistoric times through the 16th century. Achievements and experiences of great civilizations, emphasizing major historical figures and epochs, important ideas and religions, and factors of continuity and change. Provides a foundation for understanding our heritage and shared values, and introduces students to the historical forces that have shaped today's world.

HIST 2302 HISTORY OF CIVILIZATION (3-0) (HIST 2312). Major modern trends such as industrialism, nationalism, imperialism, socialism, and the more complex problems and conflicts of the present century. Particular attention to the emergence of a global civilization. Provides a foundation for understanding our heritage and shared values, and introduces students to the historical forces that have shaped today's world.

HIST 2311 AMER HISTORY (0-0)

HIST 2313 HISTORY OF ENGLAND (3-0) The history of Britain from prehistoric times to 1688. The development of English laws and institutions. Required of all pre-law majors.

HIST 2314 HISTORY OF ENGLAND (3-0) British history from 1688 to the present. The growth of English laws and institutions. Required of all pre-law majors. HIST 2313 is not a prerequisite for this course.

HIST 3300 INTRODUCTION TO HISTORICAL RESEARCH (3-0) Introduction to the methods that historians use to conduct research and present their findings in written and oral form. Required for history majors.

HIST 3307 HISTORY OF DISABILITY (3-0) Examines the history of ideas about disability, the historical lives of people with disabilities, and the history of disability policy. The growth of asylums, the rise of the eugenics movement, a historical look at freak shows, the impact of industrialization on experiences of disability, the evolution of special education, the role of ideas about disability in colonialism, the historical treatment of disabled veterans, and the development of the disability rights movement. Geographic focus will vary. Prerequisites: HIST 1311 and HIST 1312.

HIST 3309 WOMEN AND WORK, 1600 TO THE PRESENT (3-0) Examines the history of women and work, both waged and nonwaged, in Europe and the Americas, including the United States. Highlights differences within women's work cultures as well as variation in women's employment

opportunities and their efforts to achieve equality with men in the workplace, by ethnicity, region, and nation. Offered as HIST 3309 and WOMS 3309; credit will be granted only once.

HIST 3310 U.S. WOMEN'S HISTORY TO 1860 (3-0) Women in politics, work and society from the colonial era to the Civil War. Women's efforts to reform society, including the abolition of slavery and acquisition of suffrage. Offered as HIST 3310 and WOMS 3310; credit will be granted only once.

HIST 3311 U.S. WOMEN'S HISTORY 1860 TO PRESENT (3-0) American women in politics, work and society since 1860, focusing on race and class and women's struggles for rights and liberation. Offered as HIST 3311 and WOMS 3311; credit will be granted only once.

HIST 3315 WORK AND LEISURE IN THE UNITED STATES (3-0) Examines changing ideas and practices of work and leisure from colonial America to post-industrial society. Discusses how work and leisure rights developed according to social lines of class, gender, and race, and examines the impact of shifts in capitalist, industrial and consumer economies on those rights.

HIST 3317 AMERICAN LEGAL AND CONSTITUTIONAL HISTORY, COLONIAL TO 1860 (3-0) Traces the development and nature of American law with emphasis on the interrelations of law, public opinion, constitutions, the legal profession, and judiciary.

HIST 3318 AMERICAN LEGAL AND CONSTITUTIONAL HISTORY, 1860 TO PRESENT (3-0) Traces the adaptation of laws to changing social and economic needs with emphasis on the interrelations of law, public opinion, the legal profession, judiciary, and the political process.

HIST 3319 GREAT ANGLO-AMERICAN TRIALS (3-0) The historical development of criminal trial procedure in Britain and the United States: arrest and detention procedures; the roles of judge and jury; press coverage; political implications of celebrated and notorious cases.

HIST 3320 U.S. CIVIL LIBERTIES (3-0) The historical origins of individual liberties in the United States. Topics include Bill of Rights freedoms and histories of case law relating to speech, privacy and religion.

HIST 3321 COLONIAL AMERICA TO 1763 (3-0) The beginnings of colonization in North America; the development of colonies and their political, social, economic, and cultural aspects; and the international ramifications culminating in the Great War for the Empire and the Treaty of Paris in 1763.

HIST 3322 THE AMERICAN REVOLUTION AND THE CONSTITUTION, 1763-1789 (3-0) The origins of the American Revolution, the transformation of American politics and society during the Revolutionary era, and the establishment of the new national government under the Constitution. Special topics include the development of law, civilian-military relations, slavery and race relations, and women's social experience.

HIST 3323 THE NEW NATION, 1789-1844

(3-0) The development of the national government, the party system, the market economy, and reform movements from Jefferson through Jackson. The birth of modern American society and personality, with special emphasis on changing views of man, community, and society.

HIST 3324 THE COMING OF THE CIVIL WAR, 1820-1860 (3-0) Sectional conflict in the United States from the Missouri Compromise of 1820 to the election of Abraham Lincoln in 1860. Southern separatism, slavery as a political issue, the antislavery movement, the breakup of the national political system, and the failure of sectional compromise.

HIST 3325 CIVIL WAR AND RECONSTRUCTION, 1850-1876 (3-0) The background and causes of secession and the Civil War, the organization of the Confederate States of America, the progress of the war, and the attempts to solve the racial, social, political, and economic problems of the post-war period.

HIST 3326 THE OLD SOUTH, 1607-1863 (3-0) Colonial origins of plantation agriculture, slavery, economics, King Cotton, politics and secession. Other topics include slave cultures, religion, slave insurrections, plantation lifestyle, honor, dueling and southern belles.

HIST 3327 THE NEW SOUTH, 1863-PRESENT (3-0) From military defeat to Sun Belt growth. Topics include Reconstruction, segregation, migration of Southerners to the North and West, depressions, reforms, Civil Rights, Moral Majority, cultural expressions in literature and music.

HIST 3328 HISTORY OF THE UNITED STATES, 1876-1900 (3-0) The emergence of industrial America between the Reconstruction Era and 1900; the rise of business, organized labor, populism, and the emergence of the United States as a world power.

HIST 3330 THE AGE OF REFORM IN UNITED STATES HISTORY, 1900-1920 (3-0) Explores how Theodore Roosevelt and other progressive reformers, corporate capitalism, labor unrest, immigration, racial tensions, women's suffrage, and World War I laid the foundation for modern America in the early twentieth century.

HIST 3334 HISTORY OF THE UNITED STATES, 1920-1945 (3-0) The technological revolution of the 1920s, the Great Depression, and World War II.

HIST 3342 CONTEMPORARY AMERICA, 1945-PRESENT (3-0) Special topics: the origins of the Cold War, the problem of loyalty in a democratic nation, the Vietnam conflict, the Fair Deal and Great Society, the Civil Rights Movement, student unrest and the growth of the New Left, and the impact of Richard Nixon and subsequent presidents on American politics.

HIST 3344 HISTORY AND FILM (3-0) Using historically-themed films, this course explores the ways in which the dramatic design of film can contribute to an understanding of history.

HIST 3348 HISTORY OF AMERICAN FOREIGN RELATIONS, 1775-1913 (3-0)

American foreign relations from the Revolution to the outbreak of World War I. Four topics will be explored in depth: the problems of the young republic in conducting foreign policy; the acquisition of continental empire; the rise of the United States to Great Power status: the acquisition and rule of overseas empire.

HIST 3349 HISTORY OF AMERICAN FOREIGN RELATIONS, 1913- PRESENT (3-0) American diplomacy from the outbreak of World War I to the present. American entry into the two World Wars; the Vietnam quagmire; American relations with the Soviet Union, China, and the Middle East.

HIST 3350 READING THE LANDSCAPE (3-0) How historians and geographers identify and interpret clues in the landscape (such as place names, architecture, vegetation, transportation, field and street patterns) that reflect historical change and its social, economic, environmental and geographic consequences. Offered as GEOG 3350 and HIST 3350; credit will be granted only once.

HIST 3351 HISTORY OF THE DALLAS-FORT WORTH METROPLEX (3-0) The growth and development of Dallas and Fort Worth from competitive 19th-century trade centers in a rural setting to cooperative high-tech cities in a rapidly urbanizing metroplex. Political, economic, cultural, and spatial changes of this area are explored within a national urban context.

HIST 3352 THE SOUTHWEST (3-0) A multicultural history of the southwestern United States from pre-Columbian times to the present. Cultural adaptation to environment; cultural contact and conflict; political, social, and economic change. Also listed as MAS 3352; credit will be granted only once.

HIST 3354 RELIGION & AMERICAN CULTURE (3-0) A summary of American religious traditions and spirituality. Emphasis on the intersection of sacred and secular in shaping national development.

HIST 3355 ENVIRONMENTAL HISTORY OF THE UNITED STATES (3-0) People and the natural environment from the colonial period to the present. Ecological change, conservation movements, and artistic and literary interpretations of landscape and nature. Listed as GEOG 3355 and HIST 3355; credit will be granted only once.

HIST 3356 MILITARY HISTORY OF THE UNITED STATES (3-0) U.S. military history from the colonial period to the present. The role of the military establishment in the nation, the historical evolution of its organization, and the basic strategic and tactical concepts which it has employed.

HIST 3357 THE EARLY FRONTIER (3-0) The clash of empires and the patterns of exploration and settlement from the Atlantic Coast to the Mississippi River. Indian-white relations and the development of cultural, social, and political life on the early frontier.

HIST 3358 THE LATER FRONTIER (3-0) American settlement west of the Mississippi River through the close of the frontier. Exploration, the fur trade, mining, the cattle industry, Indian relations, and the role of the West in U.S. foreign affairs.

HIST 3359 PRESIDENTIAL PERSONALITY (3-0) This course will examine in their historical contexts the dynamics of presidential behavior, personality and leadership. A select number of chief executives will be reviewed, whose backgrounds, careers, and management styles will enable students to understand the extent and limits of presidential power.

HIST 3360 TWENTIETH CENTURY AMERICAN CULTURAL HISTORY (3-0) The development of mass culture in 20th century America. The rise and social effects of popular culture, especially radio, film, television, advertising, and popular music.

HIST 3361 THE UNITED STATES IN VIETNAM, 1945-1975 (3-0) American involvement in the Indochinese conflict; the causes, outcome, and consequences of the war.

HIST 3362 CITIES AND SUBURBS IN UNITED STATES HISTORY (3-0) Traces urban and suburban development from the colonial era to the present with special emphasis not only on the transformation of their physical appearance over time but on their changing meaning and significance in American history. Focuses on the economic base of urban and suburban expansion, as well as the social, political and cultural dynamics of metropolitan America.

HIST 3363 TEXAS TO 1850 (3-0) Multicultural heritage of Texas from pre-Colombian period to early statehood. Cultural contact; social, economic, and political change. Completion of either HIST 3363 or 3364 is recommended for those planning to teach in Texas schools. Also listed as MAS 3363; credit will be granted only once.

HIST 3364 TEXAS SINCE 1845 (3-0) Texas in the Mexican-American and Civil Wars. Political events and ethnic relations since annexation. Rise of cotton, cattle, and oil industries. Literature and music in the 20th century. Completion of either HIST 3363 or 3364 is recommended for those planning to teach history in Texas secondary schools.

HIST 3365 AFRICAN-AMERICAN HISTORY TO 1865 (3-0) History of blacks in America from their African origins to 1865. Emphasis on early African society, American slavery, and the development of black institutions and culture in the U.S.

HIST 3366 AFRICAN-AMERICAN HISTORY, 1865-PRESENT (3-0) Emphasis on the transition from slavery to freedom, the political, social, and economic status of blacks in the late 19th century, 20th century black institutions and culture, and the evolution of the civil rights movements.

HIST 3367 AMERICAN INDIAN HISTORY (3-0) Representative Indian tribes within the continental limits of the United States from pre-history to the contemporary period. Special topics: tribal cultures, the impact of European contact, and the colonial and United States Indian policies.

HIST 3368 MEXICAN AMERICAN HISTORY (3-0) The role of the Mexican American in the cultural and historical development of the United States with special emphasis on the Southwest. Offered as HIST 3368 & MAS 3368; credit will be granted only once.

HIST 3369 HISTORY OF LATINO RELIGIONS (3-0) Treats selected aspects of Christianity and other religious expression to show their impact on identity formation, gender roles, politics and other aspects of Latino incorporation into American society. Offered as HIST 3369 and MAS 3369; credit will be granted only once.

HIST 3370 THE IMAGE OF THE AMERICAN WEST (3-0) The way the American West has been portrayed and the part the Western myth has played in a search for a national identity. First impressions of the new world; the West in colonial literature; fiction in the 19th and 20th centuries; art, music and film; Western themes in politics; recent variations of the Western myth; the way such developments have reflected changes in popular values and a sense of national purpose.

HIST 3371 IMAGES OF THE SOUTHWEST (3-0) Examines the changing culture, architecture, and landscapes of the American Southwest as depicted in literature, art, film, television, and advertising, including the role of popular culture and commerce in creating and marketing a regional "Southwestern style." Offered as GEOG 3371 and HIST 3371; credit will be granted only once.

HIST 3372 U.S. BUSINESS AND ECONOMIC HISTORY, 1607-1865 (3-0) The roots of American economic growth with an emphasis on the transition from a colonial economy dominated by merchant families to an agricultural republic. The market and transportation revolutions as well as the developing sectional conflict between the emerging Northern industrial economy and the Southern agricultural slave economy.

HIST 3373 U.S. ECONOMIC HISTORY, 1860-PRESENT (3-0) Rise of manufacturing, marketing, and electrification. Organized labor and rebellions against the corporate world. Government regulation of business and labor. Corporations and unions during depressions and wars. Auto, high tech, and other industries. The military-industrial complex. Franchising and other trends.

HIST 3374 ANCIENT GREECE (3-0) The origins, development and diversity, successes and failures of Ancient Greece from around 1500 to 31 B.C. Near Eastern and Bronze Age background; Archaic Age and the City State; Sparta and Athens; war and imperialism; democracy and culture; Alexander the Great and the Hellenistic Era.

HIST 3375 ANCIENT ROME (3-0) The origin, development, expansion, problems, and achievements of the Roman Republic and Empire. Roots and rise of Rome; Roman Imperialism; Republic and Revolution; Roman Empire, Emperors, and Peace; Paganism and Christianity; Late Empire.

HIST 3376 MEDIEVAL EUROPE I (3-0) The rise of new states and cultures in western Europe and Byzantium after the Roman Empire's breakdown; institutional Christianity and the medieval papacy; foundation of the Holy Roman Empire; Islam at Europe's borders.

HIST 3377 MEDIEVAL EUROPE II (3-0) The formation of national, religious, and ethnic identities in Europe; intellectual developments associated with universities and new religious movements; the

expansion of Europe's borders; and the confrontation of Western Christianity with Islam.

HIST 3378 EUROPE: THE RENAISSANCE (3-0) The political, social, and intellectual events of the Renaissance period. The rise of the modern state, the emergence of individualism, and the incipient secularization of politics, arts, and letters.

HIST 3379 EUROPE: THE REFORMATION AND COUNTER-REFORMATION (3-0) The religious reawakening and reform that swept Europe in the 16th century with its consequent religious wars. The political effects of religious reform in the remaking of European attitudes in regard to politics, society, and religion.

HIST 3380 HISTORY OF ANCIENT SPORT (3-0) The nature, variety, and role of sports in ancient history. The origin and development of sport in Greece and Rome, the Olympic Games, religious and political implications, the nature of events and contests, intellectual and popular attitudes, sport in art and society.

HIST 3382 REVOLUTIONS AND REVOLUTIONARIES IN HISTORY (3-0) A historical examination of the world's major revolutions, from the 16th through the 20th centuries.

HIST 3383 EARLY MODERN EUROPE, 1560-1715 (3-0) The major social, economic, cultural, and political developments that occurred in the major European countries from the end of the Counter-Reformation to the early eighteenth century.

HIST 3384 WAR AND SOCIAL CHANGE/MILITARY REVOLUTION (3-0) Changes in European art of war from advent of gunpowder to American rebellion. Effects of these changes upon demography, political institutions, industrial production, social structure, and taxation patterns.

HIST 3389 WORLD WAR II, 1939-1945 (3-0) Various aspects of the Second World War from American, European, and Asian perspectives. Origins of the conflict, U.S. mobilization, the Holocaust, the Soviet-German confrontation, and the legacy of the most devastating conflict in modern history.

HIST 3390 HONORS COLLOQUIUM (3-0) A multidisciplinary course designed to meet the needs of advanced undergraduates in the Honors College.

HIST 4191 UNDERGRADUATE CONFERENCE COURSE (1-0) Topics assigned on an individual basis covering personal research or study in designated areas with tenure-track/tenured faculty. Course may be repeated for credit once with a change in faculty. Prerequisite: Prior completion of an organized course with the intended conference faculty member, plus prior approval of the instructor and the undergraduate advisor. The faculty member may petition for the student's exemption from these prerequisites.

HIST 4291 UNDERGRADUATE CONFERENCE COURSE (2-0) Topics assigned on an individual basis covering personal research or study in designated areas with tenure-track/tenured faculty. Course may

be repeated for credit once with a change in faculty. Prerequisite: Prior completion of an organized course with the intended conference faculty member, plus prior approval of the instructor and the undergraduate advisor. The faculty member may petition for the student's exemption from these prerequisites.

HIST 4301 HISTORICAL GEOGRAPHY AND CARTOGRAPHY (3-0) An introduction to cultural and historical geography with an emphasis on cartography and the use of maps in research and teaching. Offered as GEOG 4301 and HIST 4301; credit will be granted only once.

HIST 4330 MEDIEVAL CRUSADE AND JIHAD (3-0) A history of the crusading movement of Western Europe, and the counter-crusades. This course will consider the events, ideas, and peoples involved, and their impacts on the civilizations of medieval Christendom, North Africa, and the Middle East.

HIST 4331 MEDIEVAL TRAVELERS (3-0) Medieval people traveled for a wide variety of reasons: exploration, survival, profit, belief. Students will study medieval travel accounts to understand how voyages and other travels illustrate cultural contact, communication, exchange, and diffusion of ideas.

HIST 4345 TUDOR-STUART ENGLAND, 1485-1714 (3-0) The legacy of the Wars of the Roses: the so called new monarchy of the Tudors; The Protestant Reformation in England; constitutional implications of the controversy between crown and Parliament; changes in family and social structures; the emergence of England as a world power. Credit cannot be received for both 4345 and 4346 or 4347.

HIST 4348 ENGLAND 1714-1848 (3-0) English history in the age of revolution. Topics include the consolidation of aristocratic power, nature of Parliament, rise of Empire and the American rebellion, the Industrial Revolution, the governance of Ireland, wars of the French Revolution and Napoleon, the challenge of democratic radicalism and the alternative of political reform or revolution.

HIST 4349 ENGLAND 1848 - PRESENT (3-0) English history from Victorian grandeur to 20th century decline. Topics include the growth of social stability and democracy, the rise to and fall from world supremacy in industry and empire, the labor and women's movements, the problem of Ireland, World Wars I and II, the emergence of the socialist state, and its post-1980 revision by recent prime ministers.

HIST 4350 BRITISH CONSTITUTIONAL HISTORY (3-0) The development of the British constitution from its earliest beginnings to the present day, with special emphasis on the Anglo-Saxon institutions, the Norman constitutional development, the evolution of the major offices of the government, the development of Parliament, constitutional developments of the Stuarts, the Hanoverian constitution, the growth of democracy in the 19th and 20th centuries, and the imperial and commonwealth institutions.

HIST 4351 BRITISH EMPIRE (3-0) Examines the major parts of the empire--Ireland,

Canada, West Indies, India, Australia/New Zealand, and South Africa--from 1600 to present. Also considers English attitudes and policies, and changing ideas of imperialism.

HIST 4352 MODERN IRELAND (3-0) The contemporary crisis in Ireland in the light of Irish history. Begins with a look at present day Ireland, North and South, then examines the history: the English conquest in the 16th and 17th centuries, the awakening of 18th century Ireland, the 19th century "Irish Question"; the South's war for independence and the creation of Northern Ireland, the rise of the I.R.A. and the Protestant terrorist groups, and recent British and Irish government policies.

HIST 4354 EARLY FRANCE: OLD REGIME AND REVOLUTION, 1610-1799 (3-0) Society and politics from the assassination of Henry IV to Napoleon. The traditions of the French people and their kings, the splendor and misery of the Age of Louis XIV, the Enlightenment of Voltaire and Rousseau, the coming of the Revolution, the Reign of Terror, and the rise of Napoleon.

HIST 4355 MODERN FRANCE, 1799-PRESENT (3-0) From Napoleon to the emergence of a modern democratic state. Social and cultural trends together with the politics of two monarchies, two empires, five republics, and two German occupations. The acceleration of change in recent decades in contrast with earlier social patterns.

HIST 4356 IMPERIAL GERMANY, 1740-1914 (3-0) Prussian, German, and Hapsburg empires. Feudal society, absolutism, German romanticism, democratization, industrialization. The challenges of nationalism, colonialism, and the collapse of the empires.

HIST 4357 MODERN GERMANY, 1914-1990 (3-0) Social, political, and cultural history of Germany through World War I and II, division of Germany into East and West and ultimate unification.

HIST 4358 THE THIRD REICH: GERMAN HISTORY, 1933 - 1945 (3-0) A pivotal event in the history of the twentieth century, Hitler's Germany continues to elicit fascination, revulsion, and controversy. Dealing with this extraordinary and deeply disturbing historical phenomenon, the seminar explores the origin, nature, and demise of the Third Reich. Beginning with the rise of the National Socialism in Weimar Germany, it goes on to examine the Nazi seizure of power, the centrality of Hitler, the ideology and racial agenda of Nazism, and the destruction of the Reich in five years of war and genocide. These and other topics, such as popular opinion and everyday life, will be discussed from a variety of perspectives - cultural, political, and socioeconomic - to provide a broad interpretative framework for understanding the genesis, consolidation, and criminality of the Nazi State.

HIST 4359 HISTORY OF RUSSIA TO 1885 (3-0) A survey of Russian history from the origins of the first Russian state through the reign of Nicholas I. Special attention to such topics as the Kievan Rus, the Mongol impact and Muscovite state, the rise of Imperial Russia, and Russia's emergence as a global power. Offered as HIST 4359 and

RUSS 4359.

HIST 4360 HISTORY OF RUSSIA SINCE 1855 (3-0) A survey of Russian history from the reign of Alexander II to the present. Special attention to such topics as the decline of Imperial Russia, the rise of the revolutionary spirit, and the emergence, consolidation, and development of the Soviet state. Offered as HIST 4360 and RUSS 4360.

HIST 4361 RUSSIA AND NORTHEASTERN EUROPE, 1225-1815 (3-0) A topical, regional approach to the growth of the Russian position in northeastern Europe from the appearance of the Mongols through the Congress of Vienna. Although Russian development will be emphasized, other Baltic powers such as Sweden, Poland, and Germany will be given due consideration.

HIST 4362 RUSSIA AND THE SUCCESSOR STATES TODAY (3-0) The metamorphosis of the Communist Party and the current political philosophies of the post-Soviet states. Examination of attitudes and self-perceptions of citizens of these states in the post-Soviet period. Offered as HIST, POLS, and RUSS 4362; credit will be given in only one department.

HIST 4365 HISTORY OF SPAIN AND PORTUGAL (3-0) The cultural, political and economic history of the Iberian peninsula from ancient times. The medieval epoch; the Catholic Church; the overseas empires of Spain and Portugal, and their artistic achievements. The monarchist ideal, as well as political ideologies such as liberalism, Marxism, anarchism, and fascism.

HIST 4366 LATIN AMERICAN HISTORY: ORIGINS THROUGH INDEPENDENCE (3-0) Latin America during the colonial period of Spanish and Portuguese rule. Pre-European civilizations; Iberian backgrounds; conquest of indigenous peoples; development of colonial institutions, economic patterns, social structures, and race relations; independence from Europe.

HIST 4367 LATIN AMERICAN HISTORY: POST-INDEPENDENCE TO THE PRESENT (3-0) The evolution of six Latin American nations during the 19th and 20th centuries. The social, economic, and political development of three social groups in three regions: the Europeanized southern cone area of Argentina, Chile, and Uruguay; the indigenous culture of the Andean mountains in Peru; the African background of Brazil and Cuba.

HIST 4368 HISTORY OF MEXICO (3-0) Mexican history from its pre-Colonial indigenous foundation to the current situation. A social and economic analysis of the major events in Mexican history with emphasis upon the 19th and 20th centuries. The major theme in this class is the growth of Mexican nationalism and its relation to region, religion and ethnicity. Also listed as MAS 4368.

HIST 4369 HISTORY OF THE CARIBBEAN (3-0) A comparative history of the different societies in the Caribbean (including Cuba, Jamaica, and Haiti) with emphasis on the coming of slavery and the consequences of emancipation. Will trace development of emerging new societies from intermingling of Amerindian, African and European

elements.

HIST 4374 AFRICAN HISTORY I (3-0) Examines African prehistory, ancient civilizations, religion, gender issues, slavery, and commerce in precolonial Africa.

HIST 4375 AFRICAN HISTORY II (3-0) Africa from the "Scramble for Africa" through the establishment of the various colonial systems, through the beginnings of African nationalism, to the contemporary period. The African Revolution and the development of the independent African states.

HIST 4376 AFRICAN DIASPORA I (3-0) The major developments which have shaped the history of Africans and their descendants in the Atlantic, Mediterranean, and Indian Ocean areas from the earliest times to 1800. Emphasis on the comparative history of Black Diasporic communities; linkages between Africans and their descendants in the Diaspora.

HIST 4377 AFRICAN DIASPORA II (3-0) The major developments which have shaped the history of Africans and their descendants in Latin America, the Caribbean, and North America since 1800. Emphasis on the comparative history of Black Diasporic communities; linkages between Africans and their descendants in the Atlantic Diaspora.

HIST 4378 WEST AFRICA AND THE ATLANTIC DIASPORA (3-0) This course examines the history of West Africa and how this region was integrated into the Atlantic world through the Atlantic slave trade. The course adopts an interdisciplinary approach that integrates traditional classroom instruction with field-based learning in West Africa. This learning method, combined with cultural immersion, challenges students to develop their academic and cross-cultural knowledge and skills.

HIST 4379 HISTORY OF MODERN CHINA (3-0) The Ching dynasty and China's response to the West. Revolution and republic, warlords, and the Japanese occupation during World War II. Civil War and the development of the People's Republic of China.

HIST 4383 HITLER: HISTORY & IMAGE (3-0) Hitler has been vilified, ridiculed, idolized, and mythologized. In this course, we will examine Hitler the historical figure as well as the image of Hitler created through literature, theatre, and cinema.

HIST 4384 DEMOCRACY AND DICTATORSHIP IN EUROPE (3-0) The political landscape of Europe from 1917 to 2000. Topics will include the varying expressions of communism, facism, Nazism, liberal democracy, and authoritarian dictatorship.

HIST 4388 SELECTED TOPICS IN HISTORY (3-0) Subjects of immediate interest in the various fields of history. May be repeated for credit when the topic changes.

HIST 4391 UNDERGRADUATE CONFERENCE COURSE (3-0) Topics assigned on an individual basis covering personal research or study in designated areas with tenure-track/tenured faculty. Course may be repeated for credit once with a change in

faculty. Prerequisite: Prior completion of an organized course with the intended conference faculty member, plus prior approval of the instructor and the undergraduate advisor. The faculty member may petition for the student's exemption from these prerequisites.

HIST 4394 HONORS THESIS/SENIOR PROJECT (0-0) Required of all students in the University Honors College. During the senior year, the student must complete a thesis or a project under the direction of a faculty member in the major department.

HONR 1100 ENRICHMENT SERIES (1-0) Provides an introduction and orientation to the Honors College. Designed to assist students in acquiring skills for academic survival, individual success, and pursuit of their Honors degree and career possibilities. Format varies; instruction by both faculty and Honors College student peer counselors.

HONR 2104 HONORS INDEPENDENT STUDY (1-0) Independent study topics are arranged on an individual basis. Performance may be assessed by oral or written examination, research or review paper as arranged.

HONR 2106 HONORS SEMINAR (1-0) The Honors Seminar will cover topics of general interdisciplinary interest to students from a wide variety of academic disciplines. Active learning will be stressed with all students expected to both moderate and participate in classroom discussions of seminar topics. Instructors and topics offered will vary. The course may be repeated for credit as topics change.

HONR 2203 HONORS SPECIAL TOPICS (2-0) Topics, format, and prerequisites to be determined by faculty offering the courses. May be repeated for credit as topics change.

HONR 2204 HONORS INDEPENDENT STUDY (2-0) Independent study topics are arranged on an individual basis with permission of an instructor. Performance may be assessed by oral or written examination, research or review paper as arranged.

HONR 2300 SEMINAR (3-0) Team-taught interdisciplinary course that introduces knowledge and perspectives from the arts, sciences, and humanities. Designed around a theme of current or historical significance. Writing-intensive. Depending on topic, may meet the literature, fine arts/humanities or social/cultural studies requirement of the core curriculum (consult departmental advisor for details).

HONR 2304 HONORS INDEPENDENT STUDY (3-0) Independent study topics are arranged on an individual basis with permission of an instructor. Performance may be assessed by oral or written examination, research or review paper as arranged.

HONR 2403 SPECIAL TOPICS (4-0) Topics, format, and prerequisites to be determined by faculty offering the courses. May be repeated for credit as topics change.

HONR 2404 HONORS INDEPENDENT STUDY (4-0) Independent study topics are arranged on an individual basis with permission of an instructor. Performance may be assessed by oral or written examination, research or review paper as arranged.

HONR 3103 INDEPENDENT STUDY (1-0) Topics, format, and prerequisites to be determined by faculty offering the courses. May be repeated for credit as topics change.

HONR 3104 SPECIAL TOPICS (1-0) Topics, format, and prerequisites to be determined by faculty offering the courses. May be repeated for credit as topics change.

HONR 3203 HONORS INDEPENDENT STUDY (2-0) Independent study topics are arranged on an individual basis. Performance may be assessed by oral or written examination, research or review paper as arranged.

HONR 3204 SPECIAL TOPICS (2-0) Topics, format, and prerequisites to be determined by faculty offering the courses. May be repeated for credit as topics change.

HONR 3303 INDEPENDENT STUDY (3-0) Independent study topics are arranged on an individual basis. Performance may be assessed by oral or written examination, research or review paper as arranged.

HONR 3403 HONORS INDEPENDENT STUDY (4-0) Independent study topics are arranged on an individual basis with permission of an instructor. Performance may be assessed by oral or written examination, research or review paper as arranged.

HONR 3404 HONORS SPECIAL TOPICS (4-0) Topics, format, and prerequisites to be determined by faculty offering the courses. May be repeated for credit as topics change.

HONR 3504 HONORS SPECIAL TOPICS (5-0) Topics, format, and prerequisites to be determined by faculty offering the courses. May be repeated for credit as topics change.

HONR 4103 ADVANCED SPECIAL TOPICS (1-0) Advanced special topics in Honors. May be repeated for credit as topics change.

HONR 4104 HONORS INDEPENDENT STUDY (1-0) Independent study topics are arranged on an individual basis with permission of an instructor. Performance may be assessed by oral or written examination, research or review paper as arranged.

HONR 4106 HONORS ADVANCED SEMINAR (1-0) The Honors Advanced Seminar will cover topics of general interdisciplinary interest to students from a wide variety of academic disciplines. Active learning will be stressed with all students expected to research and prepare seminar presentations and moderate class discussions on assigned seminar topics. Instructors and topics offered will vary The course may be repeated for credit as topics change. Prerequisite: Junior or Senior status or permission of the instructor.

HONR 4144 HONORS SERVICE LEARNING OPPORTUNITIES (1-0) Credit will be given for supervised service to a community agency. The service must be related to formal coursework and approved by a faculty mentor and a degree plan advisor. Prerequisite: Junior standing or permission of the Honors College Dean. Graded Pass/Fail.

HONR 4203 ADVANCED SPECIAL TOPICS (2-0) Advanced special topics in Honors. May be repeated for credit as topics change.

HONR 4204 HONORS INDEPENDENT STUDY

(2-0) Independent study topics are arranged on an individual basis with permission of an instructor. Performance may be assessed by oral or written examination, research or review paper as arranged.

HONR 4244 HONORS SERVICE LEARNING OPPORTUNITIES (2-0) Credit will be given for supervised service to a community agency. The service must be related to formal coursework and approved by a faculty mentor and a degree plan advisor. Graded Pass/Fail.

HONR 4300 ADVANCED SEMINAR (3-0) Integrates substantive knowledge in the arts, sciences, and humanities around a theme of current or historical significance. May meet the Social/Cultural Studies requirement of the core curriculum.

HONR 4304 HONORS INDEPENDENT STUDY (3-0) Independent study topics are arranged on an individual basis with permission of an instructor. Performance may be assessed by oral or written examination, research or review paper as arranged.

HONR 4310 HONORS STUDY ABROAD (3-0) Interdisciplinary course in an out-of-country location around a theme or topic appropriate to the location. Journal, term papers, and/or examinations may be required. Meets the Social/Cultural Studies requirement of the core curriculum.

HONR 4320 HONORS INTERNSHIP (3-0) Supervised employment in student's area(s) of interest. Journal and term paper required. Reserved for students whose major department does not offer an Internship course.

HONR 4344 HONORS SERVICE LEARNING OPPORTUNITIES (3-0) Credit will be given for supervised service to a community agency. The service must be related to formal coursework and approved by a faculty mentor and a degree plan advisor. Graded Pass/Fail.

HONR 4394 HONORS SENIOR RESEARCH THESIS/CREATIVE PROJECT (3-0) A research thesis or creative project and oral presentation are required for the Honors degree. In consultation with the faculty thesis supervisor and the Honors Dean, a program of research and writing will be arranged. Planning for the Honors Thesis/Creative Project should begin early in the student's junior year. For more extensive projects additional credit may be earned. Full details for completing the Honors Research Thesis/Creative Project are provided on the Honors website, http://www.honors.uta.edu/thesis/. This course is reserved for departments and programs that do not list dedicated thesis courses in their inventories.

HONR 4403 HONORS SPECIAL TOPICS (4-0) Topics, format, and prerequisites to be determined by faculty offering the courses. May be repeated for credit as topics change.

HONR 4404 HONORS INDEPENDENT STUDY (4-0) Independent study topics are arranged on an individual basis with permission of an instructor. Performance may be assessed by oral or written examination, research or review paper as arranged.

HONR 4503 HONORS SPECIAL TOPICS (5-0) Topics, format, and prerequisites to be

determined by faculty offering the courses. May be repeated for credit as topics change.

HONR 4504 HONORS INDEPENDENT STUDY (5-0) Independent study topics are arranged on an individual basis with permission of an instructor. Performance may be assessed by oral or written examination, research or review paper as arranged.

HSC 3311 CONCURRENT COURSE (3-0)

HSC 3343 CONCURRENT COURSE (3-0)

HSC 3352 CONCURRENT COURSE (3-0)

HSC 3353 CONCURRENT COURSE (3-0)

HSC 3354 CONCURRENT COURSE (3-0)

HSC 4207 CONCURRENT COURSE (3-0)

HSC 4209 CONCURRENT COURSE (2-0)

HSC 4341 CONCURRENT COURSE (3-0)

HSC 4342 CONCURRENT COURSE (0-0)

HSC 4344 CONCURRENT COURSE (3-0)

HSC 4345 CONCURRENT COURSE (3-0)

HSC 4346 CONCURRENT COURSE (3-0)

HSC 4408 CONCURRENT COURSE (4-0)

HUMA 2301 HUMANITIES I (3-0) An interdisciplinary study of the basic cultural patterns and traditions that inform our thinking. Provides a cross-cultural and cross-disciplinary introduction to the humanities, including literature, history, and philosophy. Credit may not be received for both PHIL 2301 (the predecessor course) and HUMA 2301.

HUMA 3301 INTERDISCIPLINARY RESEARCH METHODS (3-0) Research methods required for reading and writing across disciplinary lines in the humanities. Background information and reading in authors (for example, A.O. Lovejoy, Josiah Royce, LeRoy Ladurie, and Kenneth Burke) who have taken a wide cultural perspective; bibliographical and research methods; and techniques for writing major term papers and undergraduate theses involving more than one discipline.

HUMA 3340 TOPICS IN HUMANITIES (3-0) In-depth treatment of an issue or topic in or relevant to the humanities tradition. May be repeated for credit with permission of the department.

HUMA 4301 CULTURE AND IDEAS (3-0) The way basic ideas of culture have been analyzed and applied in the humanities, recognizing that cultural analysis is not limited to a single discipline or perspective. Authors from the Classical and Renaissance periods who have sought to understand the interrelation of cultural development, the production of cultural artifacts (the fine arts, literary and dramatic arts, history), and philosophy. The work of major cultural analysts in a critical and historical context.

HUMA 4302 SOCIAL AND POLITICAL THEORY (3-0) Examination of the major social and political theories that have shaped Western thought. Topics may include the concept of the social, the role of the individual, the public/private

distinction, and gender relations. Focus on particular theorists as well as issues.

IE 1104 INTRODUCTION TO ENGINEERING (1-0) Introduction to basic engineering concepts. Students will become familiar with engineering and its many sub-fields, ethical responsibilities, creativity and design. Corequisite: IE 1105.

IE 1105 INTRODUCTION TO ENGINEERING LAB (0-3) Introduction to basic engineering concepts. Opportunities are provided to develop skills in oral and written communication, and department-specific material. Case studies are presented and analyzed. Corequisite: IE 1104.

IE 3301 ENGINEERING PROBABILITY (3-0) Topics in industrial engineering that involve random processes. Applications and backgrounds for topics in reliability, inventory systems, and queuing problems, including absolute and conditional probabilities, discrete and continuous random variables, parameter estimation, hypothesis testing, and an introduction to linear regression, experimental design, and analysis of variance. Prerequisite: MATH 2425.

IE 3312 ECONOMICS FOR ENGINEERS (3-0) Tools and methods used for determining the comparative financial desirability of engineering alternatives. Prerequisite: MATH 1426 or concurrent enrollment.

IE 3314 ENGINEERING RESEARCH METHODS (3-0) A continuation of IE 3301. Simple and multiple linear regression analysis, design of experiments, analysis of variance, and quality control statistics. Emphasis on the application of these methods to engineering data, with computerized data analysis. Prerequisite: IE 3301 and MATH 2326.

IE 3315 OPERATIONS RESEARCH I (3-0) Introduction to the major deterministic techniques of operations research and their application to decision problems. Linear programming, integer programming, network analysis, dynamic programming, nonlinear programming. Course software is used. Project required. Prerequisite: IE 3301 or concurrent enrollment and MATH 2326.

IE 3343 METRICS AND MEASUREMENT (3-0) This course presents methods for determining the most effective utilization of effort in the man-machine environment as well as systems and methods to measure enterprise performance. The computer competency evaluation is administered in this course for those students who have not had IE 1105. Prerequisite: MATH 2326, IE 3312 or concurrent enrollment, and IE 3301 or concurrent enrollment.

IE 4191 SPECIAL PROBLEMS IN INDUSTRIAL ENGINEERING (1-0) The investigation of special individual problems in industrial engineering under the direction of a faculty member. Prerequisite: consent of the department chairperson.

IE 4291 SPECIAL PROBLEMS IN INDUSTRIAL ENGINEERING (2-0) The investigation of special individual problems in industrial engineering under the direction of a faculty member. Prerequisite: consent of the department chairperson.

IE 4300 TOPICS IN INDUSTRIAL

ENGINEERING (3-0) A study of selected topics in industrial engineering. May be repeated when topics vary. Prerequisite: consent of instructor and undergraduate advisor.

IE 4302 ENGINEERING ADMINISTRATION AND ORGANIZATION (3-0) A survey of administration, control and organization of engineering and research activities. Strategic planning as well as project planning and control are discussed. Prerequisite: junior standing.

IE 4303 PRODUCTION AND INVENTORY CONTROL (3-0) Fundamental theory and design of systems for the control of production, inventories and their economic interaction, particularly in cases involving uncertainty of demand, of supply availability, and of production rates. Prerequisite: IE 3301 and 3315.

IE 4304 ENTERPRISE SYSTEMS (3-0) An extension of Production and Inventory Control (IE 4303), this course covers enterprise resource planning systems (ERP) in manufacturing, E-Commerce and supply chain environments. ERP software and case studies are reviewed. Prerequisite: IE 4303.

IE 4308 QUALITY SYSTEMS (3-0) A comprehensive coverage of modern quality systems techniques to include the design of statistical process control systems, acceptance sampling, and process analysis and design. Prerequisite: IE 3314 or concurrent enrollment.

IE 4310 INDUSTRIAL AND PRODUCT SAFETY (3-0) Scientific, managerial, and legal aspects of safety hazard control and elimination in the industrial workplace. Methods for enhancing product safety. Prerequisite: junior standing.

IE 4315 OPERATIONS RESEARCH II (3-0) A continuation of IE 3315 to probabilistic techniques of operations research and their application to decision models. Topics include z-transforms, linear difference equations, Markov chains, game theory, decision analysis, queuing theory, and non-quantitative aspects of decisions. Group projects are required. Prerequisite: IE 3301, 3315, and MATH 3319.

IE 4318 ENTERPRISE DESIGN (3-0) Design, analysis, and modeling of enterprises. Topics include enterprise architectures, structured system modeling methods, enterprise integration, and enterprise transformation. Prerequisite: junior standing.

IE 4322 ENTERPRISE SIMULATION (3-0) The design and analysis of complex manufacturing and service systems using computer-based discrete event simulation techniques. Topics include an introduction to simulation methods, and the design, construction and analysis of discrete-event simulation models, as well as their computer applications. The course also covers the execution and management of simulation projects and the formal presentation of their findings. Prerequisite: IE 3314 and IE 4315, or consent of instructor.

IE 4325 AUTOMATION AND ROBOTICS I (2-3) Study of the use of industrial automation and robotics technologies in manufacturing industries. The course

introduces the major classes of industrial automation. Issues associated with the successful deployment of automation are presented. Laboratory exercises focus on a practical introduction to various automation technologies. Prerequisite: IE 4303 or concurrent enrollment.

IE 4339 PRODUCT DEVELOPMENT, PRODUCIBILITY AND RELIABILITY DESIGN (3-0) This course covers the product and process development and engineering design process with focus on collaborative design in the enterprise environment. Manufacturing, reliability, testing, logistical and product support considerations are emphasized. Prerequisite: junior standing.

IE 4343 FACILITIES PLANNING AND DESIGN (3-0) The course covers strategic facilities planning through detailed facilities layout design. Considerations include product flow, space and activity relationships, personnel requirements, material handling, and layout. Traditional and contemporary issues in manufacturing and their impact on facilities design including receiving, shipping, warehousing, and integration with manufacturing and supporting operations are explored. Facilities planning models and the process of evaluating, selecting, preparing, presenting, and implementing the facilities plan are covered. Prerequisite: IE 4303 or concurrent enrollment.

IE 4344 HUMAN FACTORS ENGINEERING (2-3) Study of the interactions between people and their work, workplace, and the environment. Involves identification, measurement, analysis, and evaluation of interactions via human physical and mental capacities and limitations, and social interactions. Prerequisite: IE 3301, IE 3312, and IE 3343.

IE 4345 KNOWLEDGE AND TECHNOLOGY MANAGEMENT (3-0) Review of contemporary issues in knowledge management, knowledge engineering, technology management, and intelligent systems. Topics include knowledge acquisition, intelligent database design, decision support systems, artificial intelligence technologies, designs and tools, and collaborative development. Prerequisite: junior standing.

IE 4349 INDUSTRIAL AUTOMATION (2-3) Project oriented course focusing on the design, implementation, and operation of technology. An in-depth study of the design and deployment of industrial technology to meet the needs of high-precision, multi-product environments. The laboratory activities associated with the course provide practical experience. Prerequisite: IE 4325.

IE 4350 INDUSTRIAL ENGINEERING CAPSTONE DESIGN (2-3) This course provides an open-ended design experience through the planning and design of an enterprise. Typically, the student selects a product; determines the necessary processes, equipment, capacities, routings, and personnel required; develops supporting material handling, inventory, and quality systems; and designs the fully integrated enterprise including facility layout with estimated cost of operation. Contemporary project management techniques are utilized. The design experience project includes submittal of approximately nine written and oral

presentations culminating in a written project report and oral presentation at the end of the semester. IE 4350 is the capstone design course and draws on material from the total industrial engineering curriculum. The impact of engineering design on society is discussed. Prerequisite: all required 4000 level IE courses or concurrent enrollment.

IE 4391 SPECIAL PROBLEMS IN INDUSTRIAL ENGINEERING (3-0) The investigation of special individual problems in industrial engineering under the direction of a faculty member. Prerequisite: consent of the department chairperson.

INSU 4329 PROPERTY AND CASUALTY RISK MANAGEMENT (3-0) Fire, marine, and automobile insurance; business, professional, and personal liability insurance; theft insurance; disability and miscellaneous casualty coverage, surety bonds, rate structures, and multiple line contracts. Prerequisite: 60 credit hours.

INSU 4330 LIFE AND HEALTH RISK MANAGEMENT (3-0) Principles underlying the fields of life and health insurance. Types of life, health, and annuity contracts; determination of premiums; policy provisions, reserve provisions, and legal requirements. Prerequisite: 60 credit hours.

INSY 2303 INTRODUCTION TO M.I.S. AND DATA PROCESSING (3-0) Introduction to business data processing, computer programming, management information systems, and problems involved in business information processing systems. Selected software tools are presented and managerial applications are required. Formerly BUSA 2303; credit will be granted only once.

INSY 3300 OBJECT-ORIENTED PROGRAMMING (3-0) Topics include object-based and object-oriented program design and processing, language fundamentals and applications involving business problems. Prerequisite: INSY 2303.

INSY 3303 COMPUTER NETWORKS AND DISTRIBUTED COMPUTING (3-0) Concepts of networks and distributed data processing. Topics include data communications principles, hardware and software, network architectures, distributed databases, client server computing, applications, and management issues. Formerly INSY 4304; credit will be granted only once. Prerequisite: INSY 2303.

INSY 3304 DATABASE MANAGEMENT SYSTEMS (3-0) Comprehensive coverage of database technology and applications. Data models, query processing (SQL), relational database design, and implementation. Topics covered are hierarchical, network, relational, and object-oriented models, data dictionaries, distributed databases, evaluation and selection of database management systems (DBMS), and data administration. Formerly INSY 4302; credit will be granted only once. Prerequisite: INSY 3300.

INSY 3305 INFORMATION SYSTEMS ANALYSIS AND DESIGN (3-0) This is a survey of the concepts and methods of information systems analysis and design, system development life cycle (SDLC) and methodologies associated with the SDLC. Course covers feasibility analysis, requirements definition, systems design,

data design, coding design, programming, and implementation. Prerequisite: INSY 3304 and INSY 4305.

INSY 3323 DIGITAL TECHNOLOGIES FOR BUSINESS (3-0) This course demonstrates how digital technologies can be used in professional environments to improve audio and visual communications. Topics include information systems, databases, e-commerce, systems and software development, multimedia, and information security. Prerequisite: INSY 2303. NOTE: This course will not count for INSY credit for INSY majors. It may be used as a COBA elective.

INSY 3330 INTRODUCTION TO E-COMMERCE (3-0) Examines current and projected developments in electronic commerce. Topics include the information technologies upon which electronic commerce is based, such as the telecommunications infrastructure; new perspectives on space, time and money in business; electronic consumers and advertising; the effect of e-commerce on logistics and supply chain management; electronic financial markets and digital payment mechanisms; marketing through digital storefronts and virtual corporations; new frontiers of business such as electronic auctions and business to business e-commerce; the relationship between e-commerce and successful business strategy; and finally, public policy. Formerly BUSA 3330; credit will be granted only once. Prerequisite: INSY 2303.

INSY 4191 STUDIES IN INFORMATION SYSTEMS (1-0) Advanced studies, on an individual basis, in the various fields of information systems. Prerequisite: Senior standing and permission of instructor. May be repeated for credit with consent of department chair.

INSY 4291 STUDIES IN INFORMATION SYSTEMS (2-0) Advanced studies, on an individual basis, in the various fields of information systems. Prerequisite: 90 credit hours and permission of instructor. May be repeated for credit with consent of department chair.

INSY 4305 ADVANCED APPLICATION DEVELOPMENT (3-0) Topics include exception and error handling, multithreading, multimedia, files and database access, networks and network applications, collections, and component-based design in the electronic business framework. Prerequisite: INSY 3300.

INSY 4306 ADVANCED SYSTEMS DESIGN (3-0) This course will introduce systems design and development principles using Objects and Frameworks. Students will learn the use of class libraries, assemblies, namespaces, runtime engine, integrated development environments (IDE), data access and application deployment. The course will include systems development using objects, assemblies, threads, application domains, forms, files and databases. The emphasis will be on the design, development and deployment of enterprise applications on networked systems. Prerequisite: INSY 3305.

INSY 4308 APPLIED SOFTWARE DEVELOPMENT (3-0) Integration of knowledge and abilities gained in prior

computer-related courses by the development of a comprehensive system project. Prerequisite: INSY 4305.

INSY 4310 ADVANCED COMPUTER NETWORKS (3-0) An applied study of the problems inherent in the maintenance and management of the heterogeneous networking environments in the modern business enterprise. Emphasis will be placed on acquiring and integrating the practical management/technical skills. The course covers the hardware required for interconnecting networking devices. Prerequisite: INSY 3303.

INSY 4312 FUNDAMENTALS OF INFORMATION SECURITY (3-0) This course provides an introduction to the field of Information Security. It covers terminology, history, management, technology and practice of Information Security. It will address topics in many of the Security Domains specified by ISC2. Prerequisite: INSY 3303.

INSY 4315 ADVANCED WEB DEVELOPMENT (3-0) Concepts and techniques for Web application development. The course will emphasize the use of Web development tools and techniques to develop web applications. Topics include web application development using technologies such as HTML/DHTML/XHTML, client-side scripting, XML/XSL and server-side scripting. Prerequisite: INSY 3300.

INSY 4325 INFORMATION RESOURCE MANAGEMENT (3-0) Management issues related to information and information technology that confront today's diverse organizations. Topics include leadership in the information systems function and its role in supporting the information needs of the organization, information technology planning, evaluation of the information systems function, legal considerations, office automation, decision support systems, and social and technological trends. Should be taken in last semester. Prerequisite: INSY 3305.

INSY 4331 SEMINAR IN INFORMATION SYSTEMS (3-0) Readings and discussion of special topics in information systems. Prerequisite: 60 or 90 credit hours and consent of instructor. May be repeated for credit with consent of department.

INSY 4391 STUDIES IN INFORMATION SYSTEMS (3-0) Advanced studies, on an individual basis, in the various fields of information systems. Prerequisite: 90 credit hours and permission of instructor. May be repeated for credit with consent of department chair.

INSY 4393 INFORMATION SYSTEMS INTERNSHIP (3-0) Practical training in information systems. Analysis of theory applied to real life situations. May be used as an advanced business elective only; graded on a pass/fail basis. No credit will be given for previous experience or activities. May not be repeated for credit. Prerequisite: Junior standing and consent of department internship advisor.

INTD 3305 HISTORY OF INTERIOR DESIGN (3-0) A historical and analytical review of interior spaces and furnishings throughout history, with emphasis on the post-medieval periods. Prerequisite: Junior standing in program. Restricted to Interior Design

majors.

INTD 3321 INTERIOR MATERIALS I (3-0) The properties and applications of materials used in interior spaces. Prerequisite: Junior standing in program. Restricted to Interior Design majors.

INTD 3322 INTERIOR MATERIALS II (3-0) A continuation of INTD 3321. Prerequisite: Junior standing in program. Restricted to Interior Design majors.

INTD 3323 LIGHTING DESIGN (3-0) An introduction to lighting design. Course content covers lighting as an integral aesthetic design component of the Interior Design process and as a technical and quantitative specialty. Emphasis will be placed on case studies and field trips to sites where lighting solutions enhance the architectural qualities of the spaces. Prerequisite: Junior standing in program. Restricted to Interior Design majors.

INTD 3329 COMPUTER-AIDED DRAWING IN INTERIOR DESIGN (1-2) The course is developed to teach the students to set up and control the AutoCAD environment. Prerequisite: Junior standing in program. Restricted to Interior Design majors.

INTD 3343 INTERIOR DESIGN COMMUNICATION III (2-4) An advanced course to further develop design communication skills with an emphasis on color. The study of color as both as art and a science. Prerequisite: Junior standing in program. Restricted to Interior Design majors.

INTD 3345 INTERIOR DESIGN COMMUNICATION IV (2-4) An advanced course to develop visual sensitivity and skills in graphic and media techniques for the study and presentation of interior design. Prerequisite: Junior standing in program. Restricted to Interior Design majors.

INTD 3553 DESIGN STUDIO: INTERIOR DESIGN I (3-6) The analysis, planning, and design of interior spaces. Prerequisite: Credit or concurrent enrollment in INTD 3343 or INTD 3345. Junior standing in program. Restricted to Interior Design majors.

INTD 3555 DESIGN STUDIO: INTERIOR DESIGN II (3-6) The analysis, planning, and design of interior spaces.Prerequisite: Credit or concurrent enrollment in INTD 3343 or INTD 3345. Junior standing in program. Restricted to Interior Design majors.

INTD 4195 SELECTED TOPICS IN INTERIOR DESIGN (1-0) Studio and lecture course to explore and present selected topics in interior design. May be repeated for credit as topics change. Prerequisite: Permission of the Instructor or the Architecture Undergraduate Advisor.

INTD 4332 PROFESSIONAL PRACTICE: INTERIOR DESIGN (3-0) Business procedures, contracts, and ethics essential to the profession. Prerequisite: Senior standing in program. Restricted to Interior Design majors.

INTD 4345 ARCHITECTURAL GRAPHICS (2-4) Graphic and signage problems for interior and exterior environments. Visual identification programs will be developed.

Materials and fabrication processes will also be addressed. Prerequisite: INTD 3345, INTD 3553, and INTD 3555. Senior standing in program. Restricted to Interior Design majors.

INTD 4368 INTERIOR DESIGN AND DETAILING (2-4) A studio course in design and construction detailing. Prerequisite: INTD 3553 and INTD 3555. Senior standing in program. Restricted to Interior Design majors.

INTD 4369 FURNITURE DESIGN AND CONSTRUCTION (2-4) A studio course in the design, detailing, and construction of movable furniture. Prerequisite: INTD 3553 and INTD 3555. Senior standing in program. Restricted to Interior Design majors.

INTD 4393 INTERIOR DESIGN INTERNSHIP (14-0) Internship under the supervision of a registered Interior Designer in an approved Interior Design and Architectural office. Prerequisite: permission of Interior Design Program Director.

INTD 4395 SPECIAL TOPICS IN INTERIOR DESIGN (3-0) This course addresses areas of special interest to Interior Design studies and gives students an opportunity for a more in-depth exploration of selected topics than is possible within the embedded content of the core course requirements. Prerequisite: Concurrent enrollment in INTD 4562 or INTD 4563.

INTD 4562 DESIGN STUDIO: INTERIOR DESIGN III (3-6) The analysis, planning, and design of interior spaces. Prerequisite: INTD 3553 and INTD 3555. Senior standing in program. Restricted to Interior Design majors.

INTD 4563 DESIGN STUDIO: INTERIOR DESIGN IV (3-6) The analysis, planning, and design of interior spaces. Prerequisite: INTD 3553 and INTD 3555. Senior standing in program. Restricted to Interior Design majors.

INTD 4591 CONFERENCE COURSE (5-0) Independent study guided by an instructor on a regular basis. May be repeated for credit. Prerequisite: Permission of Instructor. Senior standing in program. Restricted to Interior Design majors.

INTD 4595 SELECTED TOPICS IN INTERIOR DESIGN (5-0) Studio and lecture courses to explore and present selected topics in interior design. May be repeated for credit as topics change. Prerequisite: permission of the Instructor or the Architecture Undergraduate Advisor.

INTS 2188 SPECIAL TOPICS INTERDISCIPLINARY STUDIES (1-0) Special topics or problems that lend themselves to an interdisciplinary approach. Prerequisites: INTS 2301 with a grade of C or better.

INTS 2288 SPECIAL TOPICS INTERDISCIPLINARY STUDIES (2-0) Special topics or problems that lend themselves to an interdisciplinary approach. Prerequisites: INTS 2301 with a grade of C of better.

INTS 2301 INTERDISCIPLINARY PERSPECTIVES (2-2) This is a foundation course which examines important developments and issues facing society from

a multidisciplinary perspective. This course is designed to draw insights from multiple perspectives and to integrate them into a more inclusive understanding of the problem, issue, theme, or question at hand. Sophomore standing is required.

INTS 2388 SPECIAL TOPICS INTERDISCIPLINARY STUDIES (3-0) Special topics or problems that lend themselves to an interdisciplinary approach. Prerequisites: INTS 2301 with grade of C or better.

INTS 4188 SPECIAL TOPICS INTERDISCIPLINARY STUDIES (1-0) Special topics or problems that lend themselves to an interdisciplinary approach. Prerequisite: INTS 2301 and INTS 4301 with a grade of C or better.

INTS 4288 SPECIAL TOPICS INTERDISCIPLINARY STUDIES (2-0) Special topics or problems that lend themselves to an interdisciplinary approach. Prerequisite: INTS 2301 and INTS 4301 with grade of C or better.

INTS 4301 INTERDISCIPLINARY RESEARCH PROCESS (3-0) This intermediate course examines the theory of interdisciplinarity with special emphasis on the interdisciplinary research process. At the end of the course students will develop a formal research proposal for their senior capstone integrative essay. Prerequisite: INTS 2301 with a grade of C or better.

INTS 4388 SPECIAL TOPICS INTERDISCIPLINARY STUDIES (3-0) Special topics or problems that lend themselves to an interdisciplinary approach. Prerequisite: INTS 2301 and INTS 4301 with grade of C or better.

INTS 4391 INTERDISCIPLINARY CAPSTONE (3-0) As the final course in the interdisciplinary studies core, the senior capstone research paper requires students to demonstrate mastery of the interdisciplinary research process by applying it to a complex problem or topic related to the student's stated professional goal and area of concentration. Prerequisite: INTS 4301 with grade of C or better.

INTS 4395 INTERNSHIP (3-0) This is a supervised internship program in which students integrate theory with duties at a public or private organization that are relevant to the student's academic/professional goal. The internship must be developed and approved during the semester prior to the start of the course/internship. Students are required to attend four classes during the semester and submit an integrative term paper or approved academic project at the end of the course. No credit will be given for previous experience. This course may not be repeated for credit. Prerequisite: Grade of B or better in INTS 2301 and INTS 4301 and a minimum overall GPA of 2.5 or permission of Director.

JOUR 1345 WRITING FOR MASS MEDIA (2-2) (COMM 2309). Writing techniques as applied to newspapers, broadcast media, the Internet, advertising, and public relations with practice in research and writing.

JOUR 2340 PHOTOJOURNALISM I (2-2) Basic theory and techniques of

photojournalism; introduction to electronic digital photography and editing; professional, technical, and aesthetic values. Prerequisite: JOUR 1345 with grade of C or higher.

JOUR 2346 REPORTING (2-2) Complex journalistic stories with emphasis on ethics, interviewing, and writing of general news stories, features, and specialized stories. Prerequisite: JOUR 1345 with a grade of C or higher.

JOUR 3341 PHOTOJOURNALISM II (2-2) Advanced electronic imaging techniques as applied to newspapers, magazines, and public relations. Prerequisite: JOUR 2340.

JOUR 3345 NEWS EDITING (2-2) The function of the editor and copy editor; extensive practice in newspaper page makeup, headline writing, and copy editing. Prerequisite: JOUR 2346 with a grade of C or higher.

JOUR 4325 SPECIALIZED REPORTING (2-2) This course focuses on the unique demands of a specialized form of journalism. Subjects include such topics as sports reporting, business reporting, health and science reporting, travel reporting and writing for new media. Prerequisite: JOUR 2346 with grade of C or higher.

JOUR 4326 FEATURE WRITING (2-2) Nature, function, and structure of articles for magazines and newspapers. Prerequisite: JOUR 2346 with a C or higher (2.0/4.0 scale) and JOUR 3345.

JOUR 4327 OPINION & PERSUASIVE WRITING (2-2) Reading and analysis of the forms of persuasive writing, including editorials, commentaries, reviews, and interpretive articles.Prerequisite: JOUR 2346 with a C or higher (2.0/4.0 scale).

JOUR 4341 PHOTOJOURNALISM III (2-2) Electronic imaging in news, illustrative, narrative, and essay formats. Readings in visual communication research, law, and ethics. Prerequisite: JOUR 3341.

JOUR 4346 PUBLIC AFFAIRS REPORTING (2-2) Research in planning and writing techniques required for covering such public affairs news sources as governmental offices, bureaus, and agencies. Experience in covering local government agencies, including agency budgets. Investigative and in-depth methods of news gathering; extensive practice in newswriting. Prerequisite: JOUR 3345 with grade of C or higher (or permission) and JOUR math requirement (six hours to include MATH 1308 with a grade of C or higher. Credit will not be granted for both JOUR 3328 and JOUR 4346.

JOUR 4391 CONFERENCE COURSE (3-0) Topic assigned on an individual basis, covering individual research or study in the designated areas. May be repeated when topic changes, for a maximum of six credit hours. Prerequisite: COMM 2315 and 60 or more hours earned and permission of the department.

JOUR 4393 SPECIAL TOPICS (3-0) Special studies in journalism. Topic varies from semester to semester. May be repeated when topics change, for a maximum of six credit hours. Prerequisite: COMM 2315 and 60 or more hours earned and permission.

JOUR 4395 PROFESSIONAL INTERNSHIP (10-0) Individual research while working with business and industry. Individual conference to be arranged. Prerequisite: COMM 2315, 60 or more hours earned and permission of the department. Graded P/F.

KINE 1230 FIRST AID / CPR / AED TRAINING (1-2) This course is designed to cover the components of Standard First Aid, Cardio-Pulmonary Resuscitation (CPR) for the Professional Rescuer, and Automated External Defibrillator (AED) training. Certification is possible upon successful course completion. Offered as HEED 1230 and KINE 1230. Students seeking credit in HEED should enroll in HEED 1230 and students seeking credit in KINE should enroll in KINE 1230. Credit will not be granted for both courses.

KINE 1315 INTRODUCTION TO TEACHING PHYSICAL EDUCATION (3-0) This course is an introduction to, and observation of, practices in pedagogical kinesiology. The course is intended for students who will seek certification in the field of physical education. There are no prerequisites for this course.

KINE 1400 INTRODUCTION TO EXERCISE SCIENCE (3-2) Introduction to key concepts concerning the anatomical, biomechanical, and physiological basis of exercise science. Through lecture and laboratory experiences, the student is introduced to cardiovascular responses to training, analysis of human movement, and basic principles of exercise prescription. Credit cannot be given for both KINE 1400 and the combination of courses it replaces: KINE 1124 and KINE 1314.

KINE 2130 ATHLETIC TRAINING CLINICAL PRACTICUM I (0-3) Laboratory and clinical experiences designed to provide students with formal instruction and evaluation in the Entry Level Athletic Training Clinical Proficiencies with an instructional emphasis on preventive and protective taping and wrapping procedures. This course requires the completion of 120 clinical hours under the supervision of an Approved Clinical Instructor (ACI) or Clinical Instructor (CI).

KINE 2230 INTRODUCTION TO MUSCULOSKELETAL INJURIES (2-0) This course is designed to introduce students to the mechanisms of musculoskeletal injury and their associated signs, symptoms, and tissue responses. Students will also be introduced to the basic principles of musculoskeletal assessment. This course is a prerequisite for admission to the Athletic Training Education Program. Prerequisite: KINE 2120, 2320; must be concurrently enrolled in KINE 2130.

KINE 2301 TEACHING GAMES FOR UNDERSTANDING (2-2) The course will provide students with theoretical concepts with which they can design and analyze various short- and long-term plans related to the Teaching Games for Understanding theoretical model. Students will learn various tactical strategies and modification principles for applying learned concepts in instructional settings. The instructor will use expertise from given sports to help students transfer the common themes across the spectrum of the model's category of games. Prerequisite: KINE 1315, or permission of instructor, and KINE 1400.

KINE 2330 CARE AND PREVENTION OF ATHLETIC INJURIES (3-0) An introduction to the profession of Athletic Training. Common sports-related injuries and illnesses will be discussed with an emphasis on the proper methods for prevention, recognition, and immediate care. Offered as HEED 2330 and KINE 2330. Kinesiology majors must take KINE 2330.

KINE 2420 INTRODUCTION TO ATHLETIC TRAINING (3-2) Classroom and laboratory experiences that provide an introduction to the profession of Athletic Training with an emphasis on prevention and immediate care of sports related injuries. Specific topics will include injury prevention techniques; emergency first aid and acute care; superficial application of therapeutic modalities; proper use and fitting of protective equipment; and environmental considerations. Credit cannot be give for KINE 2420 and the combination of courses it replaces: KINE 2320 and KINE 2120.

KINE 3130 ATHLETIC TRAINING CLINICAL PRACTICUM II (0-3) Laboratory and clinical experiences designed to provide students with formal instruction and evaluation in the Entry Level Athletic Training Competencies and Clinical Proficiencies. This course requires the completion of 250 hours of clinical experience performed under the supervision of an Approved Clinical Instructor (ACI) or Clinical Instructor (CI). Prerequisites: BIOL 2457, Athletic Training Majors only or permission of instructor. Corequisite: KINE 3320.

KINE 3131 ATHLETIC TRAINING CLINICAL PRACTICUM III (0-3) Laboratory and clinical experiences that provide students with formal instruction and evaluation in the Entry Level Athletic Training Competencies and Clinical Proficiencies. This course requires the completion of 250 hours of clinical education experience performed under the supervision of an Approved Clinical Instructor (ACI) or Clinical Instructor (CI). Prerequisite: BIOL 2457, Athletic Training Majors only or permission of instructor. Corequisite: KINE 3324.

KINE 3300 FUNCTIONAL ANATOMY (2-3) A study of the musculoskeletal anatomy to include bony landmarks, muscle origin, insertion and action, as well as nerve innervation. Knowledge of the functional anatomy is crucial to the understanding of sports performance, the design of strength training programs, and injury prevention. Prerequisite: BIOL 2457 and KINE 1400.

KINE 3301 BIOMECHANICS OF HUMAN MOVEMENT (2-2) Quantitative and qualitative analyses of human movement. Emphasis on the application of the principles of human movement, with consideration of functional anatomy, kinesiology and mechanical concepts to exercise, sport, and activities of daily living. Prerequisite: KINE 1400, KINE 3300, BIOL 2457 and MATH 1302, or permission of instructor

KINE 3302 BEHAVIORAL DYNAMICS OF EXERCISE AND SPORT (3-0) Analysis of exercise and sport activities in terms of psychological skills and strategies. Topics include motivation, arousal regulation, focus, concentration, group cohesion & imagery.

KINE 3303 ORGANIZATIONAL PRINCIPLES OF EXERCISE AND SPORT ACTIVITIES (3-0) An organizational analysis of exercise and sport in terms of participation rules, regulations, and responsibilities. Emphasis on knowledge and understanding of the principles governing the organization and conduct of exercise and sport activities.

KINE 3304 ADAPTED PHYSICAL EXERCISE & SPORT (3-0) Analysis of conditions that impact individuals with special needs. Emphasis on adapted physical education strategies that facilitate the learning of this population. Prior to registration, the student must complete and submit an AISD criminal background check form to the Department of Kinesiology. The form is available in the Department of Kinesiology or can be downloaded from the departmental web site. Prerequisite: KINE 1315, KINE 1400, and KINE 3388.

KINE 3306 MOTOR INTEGRATION (2-2) Principles of motor skill acquisition, performance, and control. Topics include practice strategies, memory, neuromotor functioning, attention, and learning (assessment, transfer & stages). Prerequisite: KINE 1315, and KINE 1400, or permission of instructor.

KINE 3307 SOCIOCULTURAL ASPECTS OF SPORT (3-0) Sociological dynamics as they relate to sport and exercise activities. Examination of the interdependent nature of sociological structures and current issues.

KINE 3309 FOUNDATIONS OF RECREATION (3-0) Leisure time in our social structure and the agencies which have developed to provide leisure time activities. Program development and leadership skills in the recreation profession.

KINE 3311 RECREATION AND LEISURE SERVICE (3-0) Application of management and organizational principles, objectives, and procedures involved in implementing recreational and leisure service programs.

KINE 3315 PHYSIOLOGY OF EXERCISE (2-2) Provides the physiology background necessary for an understanding of the acute and chronic effects of exercise on the body. Physiological concepts and their relationship to exercise, sport, and health programs are examined. Laboratory experiences are designed for evaluating physiological responses to exercise. Prerequisite: KINE 1400, BIOL 2457, BIOL 2458, MATH 1302, or permission of instructor.

KINE 3320 LOWER EXTREMITY EVALUATION (3-0) A study of the common orthopedic and musculoskeletal injuries involving the lower extremities and lumbar spine, with a special emphasis on recognition, evaluation, diagnosis, and initial management. Prerequisite: BIOL 2457, Athletic Training Majors only or permission of instructor. Corequisite: KINE 3130.

KINE 3324 UPPER EXTREMITY EVALUATION (3-0) A study of the common orthopedic and musculoskeletal injuries involving the upper extremities, spine, head, face, abdomen, and thorax, with a special emphasis on recognition, evaluation, diagnosis, and initial management. Prerequisite: BIOL 2457, Athletic Training Majors only or

permission of instructor. Corequisite: 3131.

KINE 3325 UNDERGRADUATE RESEARCH METHODS (3-0) Current practices in the conduct of quantitative research, measurement, and evaluation processes applied to programs related to exercise science, pedagogical kinesiology, athletic training and related fields will be examined. Enrolled students will develop and conduct a research project based on their declared discipline. Prerequisite: KINE 1400, MATH 1302, MATH 1308, computer literacy, or permission of department.

KINE 3330 PATHOLOGY AND PHARMACOLOGY (2-2) Study of acute and chronic illness 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: BIOL 2458, acceptance into the Athletic Training Education Program or permission of instructor.

KINE 3333 THERAPEUTIC MODALITIES (3-0) Provides a theoretical background for the understanding of the acute inflammatory response, tissue healing, and the physiological effects and clinical application of therapeutic modalities. Prerequisites: BIOL 2457 and 2458; Athletic Training Majors only or permission of instructor. Corequisite: KINE 4131.

KINE 3388 THEORY AND APPLICATION IN MOTOR DEVELOPMENT (3-0) Practice of fundamental motor patterns within the context of developmental theory. The theoretical basis of motor development is applied through sequential progression of skills in selected activities. Prior to registration, the student must complete and submit an AISD criminal background check to the Department of Kinesiology. The form is available in the Department of Kinesiology or can be downloaded from the departmental Web site. Prerequisite: KINE 1315, or permission of instructor, and KINE 1400.

KINE 4130 ATHLETIC TRAINING CLINICAL PRACTICUM IV (3-0) Laboratory and clinical experiences designed to provide students with formal instruction and evaluation in the Entry Level Athletic Training Competencies and Clinical Proficiencies. The instructional emphasis is the development of functional rehabilitation programs for musculoskeletal injuries and common orthopedic surgeries. This course requires the completion of 250 hours of clinical experience performed under the supervision of an Approved Clinical Instructor (ACI) or Clinical Instructor (CI). Prerequisite: BIOL 2457 and 2458; Athletic Training Majors only or permission of instructor. Corequisite: KINE 4336.

KINE 4131 ATHLETIC TRAINING CLINICAL PRACTICUM V (0-3) Laboratory and clinical experiences designed to provide students with formal instruction and evaluation in the Entry Level Athletic Training Competencies and Clinical Proficiencies. Instructional emphasis is on the selection and clinical application of therapeutic modalities. This course requires the completion of 250 hours of clinical experience performed under the supervision of an Approved Clinical Instructor (ACI) or Clinical Instructor (CI). Prerequisite: BIOL 2457 and 2458; Athletic

Training Majors only or permission of instructor. Corequisite: KINE 3333.

KINE 4132 ATHLETIC TRAINING CLINICAL PRACTICUM VI (0-3) Laboratory and clinical experiences designed to provide students with formal instruction and evaluation in the Entry Level Athletic Training Competencies and Clinical Proficiencies. This course requires the completion of 200 hours of clinical experience performed under the supervision of an Approved Clinical Instructor. Prerequisite: KINE 3130, 3131, 3320, 3324, 3330, 3333, 4130, 4131, 4336, and acceptance into the Athletic Training Education Program or approval of instructor. Must be concurrently enrolled in KINE 4233.

KINE 4188 CLINICAL HEALTH PROFESSIONS INTERNSHIP (1-0) Individualized academic training in an external clinical health professions setting (e.g. hospital, physical therapy clinic, or physician's office) under the direct supervision of a health care professional (MD, PT, OT, PA) Prerequisites: KINE 4315, current CPR certification, proof of sufficient professional liability insurance, and permission of department.

KINE 4191 CONFERENCE COURSE (1-0) Topics assigned on an individual basis covering personal research or study in the designated area. Prerequisite: permission of department chairperson.

KINE 4201 ADVANCED TECHNIQUES AND TACTICS OF BASEBALL (1-2) Development and analysis of skills, offensive and defensive strategies used in the sport of baseball.

KINE 4202 ADVANCED TECHNIQUES AND TACTICS OF BASKETBALL (1-2) Development and analysis of skills, offensive/defensive strategies used in the sport of basketball.

KINE 4203 ADVANCED TECHNIQUES AND TACTICS OF FOOTBALL (1-2) Development and analysis of skills, offensive and defensive strategies used in the sport of football.

KINE 4204 ADVANCED TECHNIQUES AND TACTICS OF TRACK AND FIELD (1-2) Development and analysis of track and field event techniques and strategies.

KINE 4205 ADVANCED TECHNIQUES AND TACTICS OF VOLLEYBALL (1-2) Development and analysis of skills, offensive and defensive strategies used in the sport of volleyball.

KINE 4233 ATHLETIC TRAINING ORGANIZATION & ADMINISTRATION (2-0) A study of the administrative issues and management theories that may be encountered in athletic training. Special emphasis is placed on the practical application of concepts related to legal liability, facility design and maintenance, documentation, financial management, health insurance, and general day-to-day operations. Prerequisite: KINE 3130, 3131, 3320, 3324, 3330, 3333, 4130, 4131, 4336, and acceptance into the Athletic Training Education Program or approval of instructor.

KINE 4291 CONFERENCE COURSE (0-0) Topics assigned on an individual basis covering personal research or study in the

designated area. Prerequisite: permission of department chairperson.

KINE 4293 SEMINAR IN ATHLETIC TRAINING (2-0) 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. Prerequisite: KINE 3320, 3324, 3330, 3333 4233, 4336; Athletic Training Majors only.

KINE 4296 SPECIAL TOPICS IN EXERCISE AND SPORT (2-0) Designed to meet the current needs of students. May be repeated for credit when the topic changes.

KINE 4300 APPLIED EXERCISE PHYSIOLOGY (2-2) Application of physiological principles of training of physical fitness and sport; examination of factors influencing anaerobic and aerobic training methods and their effect on fitness. Physiological responses studied include cardiovascular, neuromuscular, bioenergetics, and extreme environments. Site visits, laboratory experiences and a research project enhance the student's understanding of physiological changes and career paths in exercise science. Prerequisite: Current CPR certification, KINE 3315, 3325, 4315, and MATH 1302, 1308 or permission of instructor.

KINE 4315 FITNESS ASSESSMENT/PROGRAMMING (2-3) Classroom and laboratory experiences provide the student with an opportunity to become familiar with the assessment of physical fitness including graded exercise testing, basic ECG interpretation, body composition, muscular strength and endurance and flexibility. The student will also learn risk factor identification, exercise leadership and prescription. Prerequisite: Current CPR certification, KINE 3300, 3315, and MATH 1302, or permission of department.

KINE 4316 FITNESS PROGRAMMING (2-3) This course will provide students with practical and theoretical applications of fitness programming. The successful student will acquire a level of proficiency in the development of fitness programs and plans based upon client specific fitness assessment characteristics. Fitness programs shall include, but not be limited to: musculoskeletal symmetry, strength, and flexibility; body composition; cardiovascular endurance, and nutritional recommendations. Additionally, successful students will become proficient in the application of client related historical, nutritional, medical, psychological, and psychosocial factors that impact the development of a properly designed exercise program. Prerequisite: Current CPR certification, MATH 1302, KINE 3300, KINE 3315, and KINE 4315, or permission of instructor.

KINE 4317 EXERCISE PRESCRIPTION FOR SPECIAL POPULATIONS (2-3) This course will discuss the pathophysiology of prevalent 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. Prerequisite: Current CPR certification, MATH 1302, KINE 3300, 3315, 4316, or permission of instructor.

KINE 4319 INTEGRATION OF FITNESS PRINCIPLES IN AN INSTRUCTIONAL SETTING (2-3) The course will provide students with theoretical health-related concepts with which they can design and apply fitness learning into various physical education settings. Prerequisite: KINE 3388.

KINE 4320 TEACHING SECONDARY PHYSICAL EDUCATION (2-2) Designed to enhance teacher candidatesÿ understanding of curriculum development as it applies to theory of motor learning and the sciences of kinesiology. These progressions are synthesized into a collaborative service-learning project with secondary public school partner(s). Candidates take responsibility for creating, coordinating, and facilitating learning experiences that are developmentally appropriate, motivating, and based on research. Prerequisite: KINE 1315, or permission of instructor, and KINE 2301, 3304, 3306, 3325, 3388, and 4319.

KINE 4321 TEACHING ELEM PHYSICAL EDUCATION (2-2) This course is designed to synthesize the sciences of anatomy and physiology, biomechanics, motor integration and motor control with sound pedagogical knowledge into an applied elementary physical education setting. Criminal background check required. Prerequisite: KINE 3304, 3306, 3325, 3388 and 4319.

KINE 4329 STRENGTH & CONDITIONING (3-0) This 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, Certified Strength and Conditioning Specialist, certification examination. Prerequisite: Current CPR certification, KINE 3300, KINE 3301, KINE 3315, or permission of the instructor.

KINE 4330 PROGRAM DESIGN & ADMINISTRATION (3-0) The development and operation of health/wellness programs and facilities will be presented, including: program design and administration, facility design, organizational development, management theory, marketing, financial management, legal issues, strategic planning, and evaluation models. The student will participate in all phases of program and facility development, such as budget development, recruiting and retaining employees and clients, market niche, and conflict resolution. Prerequisite: KINE 3315 and 4316 or concurrent enrollment, or permission of instructor.

KINE 4331 OBESITY & WEIGHT MANAGEMENT (3-0) 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. Credit may not be given for both KINE 4317 AND KINE 4331. Prerequisites: KINE 3300 and KINE 3315.

KINE 4335 GRADED EXERCISE TESTING & PRESCRIPTION (2-3) 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. Prerequisite: BIOL 2457, 2458, and KINE 3315, 4315, or permission of instructor.

KINE 4336 MUSCULOSKELETAL REHABILITATION (3-0) Provides theoretical background and practical application of the principles and techniques related to the rehabilitation of sports-related injuries. Both surgical and non-surgical rehabilitation models will be discussed with a special emphasis on the use of functional progressions. Prerequisite: BIOL 2457 and 2458, KINE 3320 and 3324, athletic training major or approval of instructor. Athletic training majors must be concurrently enrolled in KINE 4130.

KINE 4350 SPORTS PSYCHOLOGY (3-0) The course will provide an overview of the growing field of Sports Psychology, which involves applying psychological science to sports. Topics such as maximizing sports performance, elite performance and personality, motivation techniques in sports, leadership skills in sports, etc., will be covered.

KINE 4387 EXERCISE SCIENCE PRACTICUM (0-9) Academic training within the internal setting of U.T. Arlington's exercise science laboratories. Each student will receive 135 hours of professional practicum experience in a variety of exercise science settings including wellness, physical fitness activity classes, physical fitness theory classes, the physical fitness center, and/or other exercise science settings. Prerequisite: Current CPR certification, KINE 4315, 4316, and permission of instructor.

KINE 4388 EXERCISE SCIENCE INTERNSHIP (0-9) Individualized academic training in an external professional exercise science setting (e.g., hospital, physical therapy, university laboratory) under the direct supervision of an exercise science professional. Prerequisite: KINE 4315, 4316, 4387 (or concurrent enrollment), current CPR certification, proof of sufficient professional liability insurance, and permission of instructor.

KINE 4389 FITNESS MANAGEMENT INTERNSHIP (0-9) Designed on an individual basis to allow the student to apply academic training in a professional fitness center under the direct supervision of a fitness specialist. Prerequisite: Current CPR certification, KINE 4315, 4316, 4387 (or concurrent enrollment), proof of sufficient professionally liability insurance, and permission of instructor.

KINE 4390 PRACTICUM IN SPORT PERFORMANCE (0-9) Designed on an individual basis as a field experience in the observation of sport performance, and the application of performance principles to sport participation. Students must make application for enrollment prior to October

1 for Spring Semester and prior to April 1 for Fall Semester.

KINE 4391 CONFERENCE COURSE (0-0) Topics assigned on an individual basis covering personal research or study in the designated area. Prerequisite: permission of department chairperson.

KINE 4394 HONORS THESIS/SENIOR PROJECT (0-0) Required of all students in the University Honors College. During the senior year, the student must complete a thesis or a project under the direction of a faculty member in the major department.

KINE 4395 INDIVIDUAL STUDY IN EXERCISE AND SPORT (3-0) The completion of an existing course on an individual basis as contracted with an approved faculty member. This procedure is limited to emergency situations, and must be identified through the departmental advising process.

KINE 4396 SPECIAL TOPICS IN EXERCISE AND SPORT (3-0) Designed to meet the current needs of students. May be repeated for credit when the topic changes.

KINE 4589 FITNESS MANAGEMENT INTERNSHIP (0-15) Designed on an individual basis to allow the student to apply academic training in a professional fitness center under the direct supervision of a fitness specialist.

KINE 4647 ALL-LEVEL TEACHER PREPARATION RESIDENCY FOR PHYSICAL EDUCATION (25-0) This supervised course is designed as a culminating field experience of pre-service professional preparation giving an opportunity to practically apply theoretical and pedagogical knowledge in real school settings. Applied experience will be attained in both Elementary and Secondary settings. Criminal background check required. Prerequisite: KINE 1315, or permission of instructor, and KINE 2301, 3304, 3306, 3325, 3388, 4319, 4320, 4321, EDUC 4352, LIST 4343, and EDML 4300.

KINE 4689 FITNESS MANAGEMENT INTERNSHIP (0-17) Designed on an individual basis to allow the student to apply academic training in a professional fitness center under the direct supervision of a fitness specialist. Prerequisite: Current CPR certification, KINE 4315, 4316, 4387 (or concurrent enrollment), proof of sufficient professionally liability insurance, and permission of instructor.

KINE 4988 EXERCISE SCIENCE INTERNSHIP (0-25) Individualized academic training in an external professional exercise science setting (e.g., hospital, physical therapy, university laboratory) under the direct supervision of an exercise science professional. Prerequisite: KINE 4315, 4316, 4387 (or concurrent enrollment), current CPR certification, proof of sufficient professional liability insurance, and permission of instructor.

KINE 4989 FITNESS MANAGEMENT INTERNSHIP (0-25) Designed on an individual basis to allow the student to apply academic training in a professional fitness center under the direct supervision of a fitness specialist. Prerequisite: Current CPR certification, KINE 4315, 4316, 4387 (or concurrent enrollment), proof of sufficient professionally liability insurance, and

permission of instructor.

LATN 1441 LATIN LEVEL I (3-2) (LATN 1411).

LATN 1442 LATIN LEVEL II (3-2) Prerequisite: LATN 1441 or equivalent.

LATN 2313 LATIN LEVEL III (3-0) Prerequisite: LATN 1442 or equivalent.

LATN 2314 LATIN LEVEL IV (3-0) Prerequisite: LATN 2313 or equivalent.

LATN 4301 INTENSIVE LATIN FOR READING I (3-0) Covers approximately the same material as LATN 1441/1442 (Levels I and II). Credit will not be granted for both.

LATN 4302 INTENSIVE LATIN FOR READING II (3-0) Covers approximately the same material as LATN 2313/2314 (Levels III and IV). Credit will not be granted for both.

LATN 4335 TOPICS IN LATIN LITERATURE (3-0) Close reading of one or more Latin texts, with attention both to grammatical precision and to interpretation. Student should be able to read unaltered Latin.

LATN 4391 CONFERENCE COURSE (0-0) Advanced independent study in Latin literature. May be repeated for credit with departmental permission.

LING 2301 INTRODUCTION TO THE STUDY OF HUMAN LANGUAGES (3-0) A variety of languages presented as a basis for discussion of topics such as: how languages are alike, and how different; how new languages arise; how human languages are reflections of human beings; how infants and adults acquire languages; how computers relate to human languages.

LING 2351 E-LANGUAGES (3-0) Human languages can be spoken or written, but today much of our language use is also transmitted through electronic devices. This course looks at aspects of language as reflected in the use of the technologies of modem life. Topics may include the language used in texting, chat, machine tools for recognizing print and speech, and computer translators.

LING 2371 LANGUAGE IN A MULTICULTURAL USA (3-0) This multiculturalism course examines the relationship of language in the U.S.A. to race, ethnicity, class, religion and gender. Topics typically covered include African American English, Spanish-English bilingualism and code-switching, Texas English, Asian language communities, and American Sign Language and Deaf culture. Additional topics vary.

LING 3301 TOPICS IN LINGUISTICS (3-0) Covers issues related to language and linguistics. Topics may include language and film/literature/pop culture, endangered languages, speech synthesis, applied linguistics, or other topics determined by instructor. May be repeated for credit when content changes. No prerequisites.

LING 3311 INTRODUCTION TO LINGUISTIC SCIENCE: DESCRIPTIVE LINGUISTICS (3-0) 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. Additional topics may include language acquisition; linguistic variation; and/or historical/comparative linguistics.

LING 3330 PHONETICS AND PHONOLOGY (3-0) Human speech sounds from both physiological and cognitive perspectives; the range of speech sounds in language and the patterning of such sounds within particular language systems. Prerequisite: LING 3311 or permission of undergraduate advisor.

LING 3340 GRAMMAR AND MORPHOLOGY (3-0) Grammatical patterns found in languages of the world, including the structure and distribution of words, phrases, clauses, sentences, and larger units. Prerequisite: LING 3311 or permission of undergraduate advisor.

LING 3345 CRITICAL REASONING IN LINGUISTICS (3-0) A survey of formal logical approaches used to describe and explain natural language phenomena. Topics include the fundamentals of logical representation and argumentation, the effective use of inductive and deductive reasoning, and the construction of more complex linguistic arguments. Prerequisites: LING 3311 and either PHIL 1301 or PHIL 3321.

LING 3366 TOPICS IN RACE/ETHNICITY AND LANGUANGE IN THE U.S. (3-0) Either an intensive focus within one racial/ethnic group or a comparison between two or more groups. Focus may include language in the U.S. as it pertains to one (or more) of these communities: African Americans, Mexican Americans and Latinos/as, Native Americans, and/or Asian Americans. May be repeated for credit as course content changes.

LING 4301 PHONOLOGICAL THEORY I (3-0) (Also taught as LING 5320). Principles governing sound systems in human languages. Prerequisite: LING 3330.

LING 4303 GRAMMATICAL THEORY I (3-0) (Also taught as LING 5330). Grammatical systems in human languages. May be repeated for credit when the topic changes. Prerequisite: LING 3340.

LING 4317 SOCIOLINGUISTICS (3-0) (Also taught as LING 5310). Language in its social context, including linguistic variation, address and reference, speech levels, bilingualism, code switching, speech acts, conversation analysis, and language and gender. Prerequisite: LING 3311.

LING 4318 LANGUAGE AND GENDER (3-0) The role of language in the expression and creation of gender identities. Gender differences in language structure and use, women's and men's language in other cultures, the acquisition of gendered ways of speaking, and sexism in language. Offered as LING 4318 and WOMS 4318; formerly offered as LING 4392/WOMS 4392; credit will be granted only once. Prerequisite: LING 3311.

LING 4320 HISTORICAL AND COMPARATIVE

LINGUISTICS (3-0) (Also taught as LING 5314). Language development and change; the comparative method and its use in linguistic reconstruction; laws of language change. Prerequisite: LING 3311.

LING 4327 LANGUAGE ACQUISITION (3-0) (Also taught as LING 5305). 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 3311.

LING 4330 THE COMPUTER AND NATURAL LANGUAGE (3-0) (Also taught as LING 5380). Applications of computers to linguistic analysis, and applications of linguistic analysis to computing. Natural language processing, speech recognition and synthesis, language prostheses, statistical analysis, text processing, and corpus analysis. Prerequisite: Permission of the instructor.

LING 4334 MORPHOLOGY (3-0) A theoretical and typological investigation into the nature of word-structure and word-formation processes in human languages. Prerequisite: LING 4301 or LING 4303.

LING 4335 LANGUAGE UNIVERSALS & LINGUISTIC TYPOLOGY (3-0) Consideration of universals in human language, their explanation and description, and language types. Prerequisite: LING 4301.

LING 4345 SEMANTICS (3-0) 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.

LING 4347 PRAGMATICS (3-0) Analysis of how context and form interact with meaning. Topics may include deixis, reference, speech acts, presupposition, implicature, information structure and intonation. Prerequisite: LING 3311 or permission of the instructor.

LING 4353 TEACHING ENGLISH AS A SECOND OR FOREIGN LANGUAGE (3-0) (Also taught as LING 5301). Presentation and critique of methodologies of teaching English to speakers of other languages, with emphasis on teaching techniques of aural comprehension; speaking, reading, and writing skills; testing, language laboratory, and linguistic-cultural differences. Prerequisite: LING 2301.

LING 4354 METHODS AND MATERIALS TO TEACH ENGLISH AS A SECOND OR FOREIGN LANGUAGE (3-0) (Also taught as LING 5302). Application of linguistic theory and findings; emphasis on pedagogical strategies, materials, and tests; attention to current and past research and practices. Prerequisite: LING 2301.

LING 4360 NON-WESTERN LINGUISTIC STRUCTURES (3-0) 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.

LING 4370 HISTORY OF LINGUISTICS (3-0)

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 3330 and LING 3340 and either LING 4301 or LING 4303.

LING 4389 TOPICS IN LINGUISTICS (3-0) Current topics in linguistics research. May be repeated if topic changes. Prerequisite: Either LING 3330, 3340, or 4317, and permission of undergraduate advisor.

LING 4391 CONFERENCE COURSE IN LINGUISTICS (0-0) Independent study in the preparation of a paper on a research topic; consultation with instructor on a regular basis. May be repeated for credit. Prerequisite: Either LING 3311, 3330, or 3340, and permission of undergraduate advisor.

LING 4395 INTERNSHIP (3-0) Internship (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 the approval of the Undergraduate Advisor.

LIST 4191 CONFERENCE COURSE (1-0) Independent study in the preparation of a project in a paper on a research topic; consultation with instructor on a regular basis. May be repeated for credit. Prerequisite: Consent of instructor.

LIST 4291 CONFERENCE COURSE (2-0) Independent study in the preparation of a project in a paper on a research topic; consultation with instructor on a regular basis. May be repeated for credit. Prerequisite: Consent of instructor.

LIST 4326 SECONDARY READING (3-0) This course focuses on the scope of reading instruction in the secondary schools and the processes and skills for reading. Students explore programs, trends, and issues related to secondary reading instruction along with comprehension and word study instruction, the integration of reading with writing and oral communication, selection of print materials competency, and an examination of visual literacy and the media.

LIST 4343 CONTENT AREA READING AND WRITING (3-0) Explores methods of teaching reading, writing, and study skills across the curriculum in grades 4-12. Emphasis on text structure and the differences 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 will also be addressed.

LIST 4373 LITERACY LEARNING FOR EC-6 STUDENTS: READING AND WRITING (3-0) Balanced literacy approach to teaching with an emphasis on reading and writing. Theoretical models, principles of teaching reading and writing using a variety of instructional strategies, the role of phonemic awareness, effective program organization, assessment, and classroom

management.

LIST 4374 LITERACY LEARNING FOR EC-6 STUDENTS: LITERATURE AND LANGUAGE (3-0) Comprehensive approach to literacy instruction. Emphasis on using genres of childrenÿs literature to promote language and literacy development. Instructional models and techniques for using childrenÿs literature across the curriculum. Use of appropriate media and non-print materials, selection and evaluation of literature, and strategies for stimulating and expanding children's response to literature.

LIST 4376 ASSESSMENT IN LITERACY LEARNING (3-0) Examines a variety of formal and informal literacy assessment tools and techniques. Also focuses on diagnostic procedures for identifying literacy learning strengths and needs. Students will apply reading and writing assessment and instructional strategies with children.

LIST 4378 TEACHING , READING, WRITING, AND LITERATURE IN THE MIDDLE LEVEL GRADES (2-2) Theory and practice in the teaching of the English language arts for the middle level, including various instructional approaches to reading, writing, listening, and speaking; motivating student readers and writers, the teaching of work level skills, vocabulary and comprehension, strategies for various writing modes, purposes, and audiences; strategies for developing rereading, revision and editing skills, basic components of assessment. Integration of literature suitable for the middle level; selection and evaluation of appropriate fiction, nonfiction, and poetry for instruction, as well as literature-based instructional methods. This course involves a two-hour lecture and two-hour application of lecture and two-hour application of lecture/theory. The two-hour application of lecture/theory will require students to spend time in a 4-8 classroom during normal school hours.

LIST 4390 SELECTED TOPICS IN LITERACY (3-0) An examination of different topics related to literacy. This seminar may be repeated for credit as the topic changes.

LIST 4391 CONFERENCE COURSE (3-0) Independent study in the preparation of a project in a paper on a research topic; consultation with instructor on a regular basis. May be repeated for credit. Prerequisite: Consent of instructor.

LSHP 4311 LEADER AS COMMUNICATOR (3-0) Helps students excel in written and oral communication skills. Assignments include writing short papers, making oral presentations (some videotaped), and learning to critique one another. Prerequisite: Admission to the Goolsby Leadership Academy or permission of the Goolsby Leadership Academy Director. Offered as HONR-BU 4311 and LSHP 4311.

LSHP 4312 LEADER ETHICS (3-0) Addresses rule-based, consequential, and virtue ethics by examining intentions, actions, and consequences of individual behavior. The course emphasizes the development of character and personal integrity. Prerequisite: Admission to the Goolsby Leadership Academy or permission of the Goolsby Leadership Academy Director.

LSHP 4313 SENIOR EXECUTIVE

LEADERSHIP (3-0) Designed on a series of lectures by executives followed by round-table discussion with faculty member(s). This course exposes Goolsby Fellows to leading executives. Prerequisite: Admission to the Goolsby Leadership Academy or permission of the Goolsby Leadership Academy Director.

LSHP 4314 LEADERSHIP IN CONTEXT (3-0) Designed to assist Goolsby Fellows to be competent in an intercultural world. The heart of the course is aimed at appreciating human diversity and variance. Prerequisite: Admission to the Goolsby Leadership Academy or permission of the Goolsby Leadership Academy Director.

LSHP 4315 EXECUTIVE INTERNSHIP (3-0) This internship experience places Goolsby Fellows in field settings with executives from the college's Advisory Council and other executive leaders in specialized areas for students. Prerequisite: Admission to the Goolsby Leadership Academy or permission of the Goolsby Leadership Academy Director.

MAE 1104 INTRODUCTION TO ENGINEERING (1-0) Introduction to basic engineering concepts. Students will become familiar with engineering and its many sub-fields, ethical responsibilities, creativity, and design. Semesters offered: Fall, Spring. Prerequisite: none.

MAE 1105 INTRODUCTION TO MECHANICAL AND AEROSPACE ENGINEERING (0-3) Introduction to basic engineering concepts. Opportunities are provided to develop skills in oral and written communication and department specific material. Case studies are presented and analyzed. Semesters offered: Fall, Spring. Prerequisite: C or better in MAE 1104 (or concurrent enrollment).

MAE 1312 ENGINEERING STATICS (3-0) A study of forces and force systems, resultants and components of force systems, forces due to friction, conditions of equilibrium, forces acting on members of trusses and frame structures, centroids and moments of inertia. Vector and index notation introduced. Semesters offered: Fall, Spring, Long Summer. Prerequisite: C or better in PHYS 1443, C or better in MATH 1426.

MAE 1350 GRAPHICS FOR ENGINEERS (2-3) Freehand, instrumental, and computer graphics, including Computer Aided Design (CAD) systems (including Pro-E software packages) and graphical representation of data using microcomputer software. Emphasis on the use of computer software in the graphical process to originate ideas and to solve engineering problems and generate graphical representations of solutions. Semesters offered: Fall, Spring. Prerequisite: none.

MAE 2000 UNDERGRADUATE RESEARCH (0-0) Sophomore level undergraduate research. Prerequisite: Departmental good standing and permission of instructor. May be taken a maximum of 3 times.

MAE 2312 SOLID MECHANICS (3-0) The relationship between stresses and strains in elastic bodies and the tension, compression, shear, bending, torsion, and combined loadings which produce them. Deflections and elastic curves, shear and bending

moment diagrams for beams, and column theory. Semesters offered: Fall, Spring, Long Summer. Prerequisite: C or better in MAE 1312.

MAE 2314 FLUID MECHANICS I (3-0) Fundamental concepts of fluid mechanics leading to the development of both the integral and differential forms of the basic conservation equations. Application of the integral conservation equations to engineering problems in fluid dynamics including buoyancy and other hydrostatics problems. Dimensional analysis and similitude are also discussed. Semesters offered: Fall, Spring, Long Summer. Prerequisite: C or better in MAE 2323, C or better in MAE 2360, C or better in MAE 3360, and C or better in MAE 3310 (or concurrent enrollment).

MAE 2315 FLUID DYNAMICS (3-0) Introduction to Fluid Dynamics and low speed aerodynamics; fluid properties; dimensional analysis; conservation equations in integral and differential form; viscous flow; potential flow theory, air foil and finite wing theory. Semesters offered: Fall, Spring. Prerequisites: C or better in MAE 2323, C or better in MAE 3309 (or concurrent enrollment), C or better in MAE 3360 (or concurrent enrollment).

MAE 2323 DYNAMICS (3-0) The relation between forces acting on particles, systems of particles and rigid bodies, and the changes in motion produced. Review of kinematics and vector analysis, Newton's Laws, energy methods, methods of momentum, inertia tensor and Euler's equations of motion. Semesters offered: Fall, Spring, Long Summer. Prerequisite: C or better in MAE 1312; C or better in MATH 2425.

MAE 2360 NUMERICAL ANALYSIS & PROGRAMMING (2-3) Utilization of digital computers in mechanical and aerospace engineering. Computational algorithms and their representation in FORTRAN, C, and Matlab. Introduction to linear algebra and numerical methods. Semesters offered: Fall, Spring, Long Summer. Prerequisite: C or better in MATH 2425 (or concurrent enrollment).

MAE 2381 EXPERIMENTAL METHODS AND MEASUREMENTS (2-3) Introduction to data analysis, incorporating statistics and probability, design and planning of engineering experiments for error prediction and control. Measurement and instrumentation, basic instruments, their calibration and use. Semesters offered: Fall, Spring, Long Summer. Prerequisite: C or better in MATH 2425.

MAE 3000 UNDERGRADUATE RESEARCH (0-0) Junior level undergraduate research. Prerequisite: Departmental good academic standing and permission of instructor. May be taken a maximum of 3 times.

MAE 3181 MATERIALS AND STRUCTURES LAB (0-3) Experiments to study materials behavior and deformation of structural elements common to aerospace vehicles. Semesters offered: Fall. Prerequisite: C or better in MAE 2381; MAE 3315 (or concurrent enrollment).

MAE 3182 AERODYNAMICS AND FLUIDS LAB (0-3) Wind tunnel experiments to study flow phenomena of aerodynamics interest,

including scale testing of airfoils, wings, and aircraft. Semesters offered: Spring. Prerequisite: C or better in MAE 2381; MAE 3303 (or concurrent enrollment).

MAE 3183 MEASUREMENTS LABORATORY II (0-3) Fundamental measurement techniques and experimental data analysis in mechanical engineering in the fields of thermal, fluid, structures, design, and dynamic systems. Introduction to sensor calibration, digital data acquisition, uncertainty analysis, and report writing. Semesters offered: Fall, Spring, Long Summer. Prerequisite: C or better in MAE 2381, MAE 3314, MAE 3319, C or better in EE 2320.

MAE 3242 MECHANICAL DESIGN I (2-0) The overall nature of design as a process is presented along with various models, methods, techniques, and tools for the various phases of the process provide the student with an excellent understanding of how to design. Students learn to design mechanical components based on stress/deflection and the associated failure theories. Semesters offered: Fall, Spring. Prerequisite: C or better in MAE 2312, C or better in MAE 2323, C or better in MAE 3324.

MAE 3302 AERODYNAMICS OF INCOMPRESSIBLE FLOWS (3-0) Fundamental theory of incompressible flows with applications to the prediction of aerodynamic characteristics of wings and bodies. Viscosity effects on aerodynamics. Semesters offered: Fall. Prerequisite: MAE 2301, 3360.

MAE 3303 AERODYNAMICS OF COMPRESSIBLE FLOWS (3-0) Adiabatic and isentropic flows; normal and oblique shockwaves; Prandtl-Meyer flows; expansion waves; compressible flow nozzles, diffusers, and wind tunnels; thin-airfoil and small-perturbation theory; design principles for supersonic vehicles and wind tunnels; methods of characteristics. Semesters offered: Fall. Prerequisite: C or better in MAE 2315, C or better in MAE 3309 (or MAE 3310), C or better in MAE 3360.

MAE 3304 ASTRONAUTICS I (3-0) Introduction to astronautics, the solar system, and the two-body problem. Orbit shaping and orbit transfers. Patched conic approximations for interplanetary transfers. Introduction to the three-body problem and relative motion. Rigid spacecraft equation of motion. Active and passive attitude stabilization techniques for spacecraft. Semesters offered: Fall. Prerequisite: C or better in MAE 2323,C or better in MAE 2360, C or better in MAE 3360.

MAE 3306 FLIGHT PERFORMANCE & STABILITY (3-0) Introduction to aircraft performance and the assessment of aircraft stability and control characteristics. Performance topics covered include cruise, climbing, gliding and turn flights, range and endurance. Stability and controlled topics covered include longitudinal, lateral and directional stability and control. Semesters offered: Spring. Prerequisite: MAE 3303.

MAE 3309 THERMAL ENGINEERING (3-0) Basic concepts and definitions, properties of pure substance, work and heat, first law of thermodynamics, second law of thermodynamics, entropy, and introduction to conductive, convective, and radiative transfer. Semesters offered: Fall, Spring,

Long Summer. Prerequisite: C or better in MATH 2425,C or better in PHYS 1444.

MAE 3310 THERMODYNAMICS I (3-0) Basic concepts and definitions, properties of pure substance, work and heat, first law of thermodynamics, second law of thermodynamics, entropy, thermodynamics of gases, vapors, and liquids in various nonflow and flow processes, and irreversibility and availability. Semesters offered: Fall, Spring, Long Summer. Prerequisite: C or better in MATH 2425, C or better in PHYS 1444, C or better in MAE 1312.

MAE 3311 THERMODYNAMICS II (3-0) Power and heat pump cycles, property relations and equations of state, ideal gas mixtures, mixtures of gases and vapors, combustion stoichiometry, thermodynamics of combustion, and compressible flow. Emphasis is on applying these topics to thermal systems design. Semesters offered: Fall, Spring, Long Summer. Prerequisite: C or better in CHEM 1465, C or better in MAE 3310, MAE 2314 (or concurrent enrollment).

MAE 3314 HEAT TRANSFER (3-0) The fundamental laws of heat and mass transfer, including steady and unsteady conduction, convection, and radiation. Applications of heat transfer to thermal systems design are included. Semesters offered: Fall, Spring, Long Summer. Prerequisite: MAE 2314; and C or better in MAE 3310.

MAE 3315 AEROSPACE STRUCTURAL STATICS (3-0) Concepts of stress/strain tensor and traction vector, differential equations of equilibrium, constitutive relations, anisotropic solids, bending and extension of advanced beams, torsion in thin-walled closed sections. Shear in advanced beams. Semesters offered: Fall. Prerequisite: C or better in MAE 2312.

MAE 3316 AEROSPACE STRUCTURAL DYNAMICS (3-0) Harmonic and periodic motion including both damped and undamped free and forced vibration. Single-and multi-degree-of-freedom systems. Vibration of continuous systems. Matrix techniques suitable for digital computer solution. Introduction of finite element method for structural dynamics. Semesters offered: Fall. Prerequisite: C or better in MAE 2312, C or better in MAE 2323, C or better in MAE 2360, C or better in MAE 3360, C or better in MATH 3330.

MAE 3318 KINEMATICS AND DYNAMICS OF MACHINES (3-0) The motion and interaction of machine elements. Fundamental concepts of kinematics, statics, and dynamics applied to the determination of forces acting on the parts of machines. Specific mechanisms and applications such as cams, gears, flywheels, and balancing. Semesters offered: Fall, Spring, Long Summer. Prerequisite: C or better in MAE 2323.

MAE 3319 DYNAMIC SYSTEMS MODELING AND SIMULATION (3-0) Introduction to modeling and prediction of behavior of engineering systems. Analytic and numerical simulation, state-space differential equations, and Laplace transform methods. Effects of physical characteristics of system elements on system design and dynamic performance. Semesters offered: Fall, Spring, Long

Summer. Prerequisite: MAE 3314 (or concurrent enrollment); C or better in MATH 3330 and C or better in EE 2320 (or concurrent enrollment).

MAE 3324 STRUCTURE & MECHANICAL BEHAVIOR OF MATERIALS (3-0) Crystal structure and defects in materials. Diffusion, phase diagrams and phase transformations in metallic systems. The inter relationships between processing, structure, and properties of engineering materials with emphasis on the mechanical behavior of metals, polymers, and composite materials. Semesters offered: Fall, Spring, Long Summer. Prerequisites: C or better in CHEM 1465, C or better in PHYS 1444, C or better in MAE 2312 (or concurrent enrollment).

MAE 3330 DIGITAL SYSTEMS (3-0) Applications of personal computers (PC), programmable logic controllers (PLC), and microprocessors (MP) for instrumentation, automation, and control. Digital systems, architecture, interfacing, and programming. Prerequisite: C or better in MAE 2360.

MAE 3344 INTRODUCTION TO MANUFACTURING ENGINEERING (2-3) Introduction to casting, forming, machining, and joining processes for metals and nonmetals. Semesters offered: Fall, Spring. Prerequisite: C or better in MAE 2312, C or better in MAE 3324.

MAE 3360 ENGINEERING ANALYSIS (3-0) Mathematical analysis with emphasis on solution techniques and engineering applications. Topics include: ordinary differential equations (ODE), Laplace Transform, numerical solutions of ODE, boundary value problems, Fourier series, Sturm-Liouville problem and vector calculus. Semesters offered: Fall, Spring, Long Summer. Prerequisite: C or better in MATH 2326, C or better in MAE 2360 (or concurrent enrollment).

MAE 3405 FLIGHT DYNAMICS (4-0) Derivation of equation of motion (EOM) of a flight vehicle. Trimmed flight condition analysis based on the nonlinear EOM. Linearization of EOM for a given trimmed flight condition. State-space and transfer-function representations of the linear EOM. Aircraft stability and dynamic performance analysis based on the linear EOM. Semesters offered: Spring. Prerequisite: MAE 3306 (or concurrent enrollment), C or better in MATH 3330.

MAE 4000 UNDERGRADUATE RESEARCH (0-0) Senior level undergraduate research. Prerequisite: Departmental good academic standing and permission of instructor. May be taken a maximum of 3 times.

MAE 4188 DESIGN PROJECT LABORATORY II (0-3) The design project from MAE 4287 continued. The design is finalized, a physical model (prototype) is manufactured and tested. Redesign and retest is accomplished as desired. The final design is documented by written report and oral presentation. Exit survey forms and exit essays must be submitted to complete the requirements of this course. Semesters offered: Spring, Long Summer. Prerequisite: MAE 4287.

MAE 4191 SPECIAL PROBLEMS IN MECHANICAL AND AEROSPACE

ENGINEERING (1-0) Special problems in mechanical and aerospace engineering for students of senior standing.

MAE 4287 DESIGN PROJECT I (2-0) Team engineering approach to a design project that integrates engineering knowledge from several courses. Problem definition and creative synthesis of prospective design solutions. Engineering proposals, feasibility studies, trade-off studies, systems models and analysis, decision making, and engineering reports and presentations. Professionalism, ethics, and societal impact issues. Semesters offered: Fall, Spring. Prerequisite: must be within two calendar semesters of graduation (possibly including an 11-week summer session).

MAE 4291 SPECIAL PROBLEMS IN MECHANICAL AND AEROSPACE ENGINEERING (2-0) Special problems in mechanical and aerospace engineering for students of senior standing.

MAE 4301 SPECIAL TOPICS IN MECHANICAL AND AEROSPACE ENGINEERING (3-0) Topics will vary from semester to semester depending on student interest and the availability of faculty. May be repeated, provided topics are different. Prior approval by the student's advisor required.

MAE 4304 ASTRONAUTICS II (3-0) The restricted three-body problem, the n-body problem, and approximations. Interplanetary transfers. Design considerations for both manned and unmanned interplanetary vehicles. Prerequisite: MAE 3304.

MAE 4307 FINITE ELEMENT METHODS (3-0) Static response of complex structures and continua; application to field problems; mesh generation; error estimation and adaptive refinement. Prerequisite: Grade of C or better in both MAE 3242, MAE 3315.

MAE 4310 INTRODUCTION TO AUTOMATIC CONTROL (3-0) Block diagram algebra, transfer functions, and stability criteria. The use of transient response, frequency response, and root locus techniques in the performance analysis, evaluation, and design of dynamic systems. Semesters offered: Fall, Spring, Long Summer. Prerequisite: Grade of C or better in each of MAE 3314, MAE 3319 (or MAE 3405), EE 2320.

MAE 4312 CONTROL SYSTEMS COMPONENTS (3-0) The components used in mechanical, electronic, and fluid power control systems are studied. Modeling and performance analysis are used to help in the understanding of system behavior. Prerequisite: MAE 4310.

MAE 4313 FLUID MECHANICS II (3-0) A continuation of MAE 2314, consisting of a study of boundary-layer flows, inviscid incompressible flow, compressible flow, aerodynamic surfaces, and turbomachinery. Prerequisite: C or better in both MAE 2314 and MAE 3310.

MAE 4314 MECHANICAL VIBRATIONS (3-0) Harmonic and periodic motion including both damped and undamped free and forced vibration. Single- and multidegree-of-freedom systems. Matrix techniques suitable for digital computer solution. Prerequisite: C or better in MATH 3330, C or better in MAE 2323, C or better in MAE 2360, C or better in MAE 3360.

MAE 4315 INTRODUCTION TO COMPOSITES (3-0) Composite classification, laminate coding, fabrication, processing and properties of composite laminates, point stress analysis and failure prediction of composite laminates, material allowables, issues in composite structural design. Semesters offered: Fall. Prerequisite: C or better in MAE 2312 (or C or better in CE 2313).

MAE 4320 HYDRAULIC AND PNEUMATIC SYSTEMS (3-0) The fundamentals of fluid mechanics as applied to hydraulic and pneumatic hardware. Mathematical models of pumps, motors, pistons, accumulators, valves, and transmission lines. Design and analysis procedures for implementing total fluid power systems with high operating efficiencies and adequate dynamic response characteristics. Theory is supported by laboratory demonstrations. Prerequisite: MAE 2314; C or better in MAE 3310; MAE 4310.

MAE 4321 AIR-BREATHING ENGINE PROPULSION (3-0) First course of a two semester sequence for students interested in aerospace propulsion. Development of thrust and efficiency relations, cycle analysis for ramjet, turbojet, and turbofan engines, component design and performance analysis, off-design performance analysis. Semesters offered: Spring. Prerequisite: MAE 3303 or MAE 3311.

MAE 4322 ROCKET PROPULSION (3-0) Examines chemical, nuclear, and electrical propulsion concepts. Development of design and performance analysis methods. Flight performance of rocket powered vehicles. Prerequisite: MAE 3303 or MAE 3311.

MAE 4323 ENERGY CONVERSION (3-0) Thermodynamics as applied to thermo-mechanical systems such as power cycles, engines, turbines, refrigeration, and air-conditioning systems. Prerequisite: MAE 3311, MAE 3314.

MAE 4327 HEATING, VENTILATION, AND AIR CONDITIONING (3-0) Application of engineering sciences to design of heating, venting, & air conditioning (HVAC) systems. Humidification and dehumidification, psychrometric charts, heat load, cooling load, degree-days, comfort zones, and air distribution systems. Prerequisite: MAE 3311 and MAE 3314.

MAE 4331 DESIGN FOR MANUFACTURING (3-0) Manufacturing methods and operations. The interaction between design and manufacturing stressed in terms of drawing specifications versus process capability and tolerances, including standards applications and redesign for producibility. Semesters offered: Fall. Prerequisite: MAE 3242 (or 3344).

MAE 4336 ADVANCED MECHANICAL BEHAVIOR OF MATERIALS (3-0) Concept of stress and strain; elementary dislocation theory. Deformation of single crystals; strengthening mechanisms like solid solution strengthening, and precipitation hardening. Fracture mechanics; microscopic aspects of fracture, fatigue, and creep of materials; design and processing of materials for improved mechanical properties. Prerequisite: C or better in MAE 2312, C or better in MAE 3324.

MAE 4338 FAILURE ANALYSIS (2-3) Theory and practice of techniques for determining modes of failure and fracture of engineering materials. Prerequisite: C or better in MAE 2312, C or better in MAE 3324.

MAE 4339 FRACTURE MECHANICS (3-0) Theory and applications of fracture mechanics. Stress analysis of cracks, crack-tip plasticity, fatigue crack growth, and stress corrosion cracking. Applicability to materials selection, structural design, failure analysis, and structural reliability. Prerequisite: MAE 3242.

MAE 4342 MECHANICAL DESIGN II (3-0) Analysis for the design and manufacture of basic mechanical elements, and their role in the design of machines. A brief review of relevant topics including stress/deflection, failure theories, and contact stress is initially conducted. It is then extended to the design of fundamental mechanical components including shafts, gears, springs, bearings, fasteners, and clutches/brakes. Semesters offered: Fall, Spring, Long Summer. Prerequisite: MAE 3242, MAE 3318.

MAE 4344 COMPUTER-AIDED ENGINEERING (3-0) A study of the principles of computer-aided engineering in mechanical engineering. Applications in machine, structural, control, thermal, and fluid systems. Semesters offered: Fall, Spring. Prerequisite: MAE 3319 and 3242.

MAE 4345 INTRODUCTION TO ROBOTICS (3-0) Overview of industrial robots. Study of principles of kinematics, dynamics, and control as applied to industrial robotic systems; robotic sensors and actuators; path planning; programming of industrial robot in the laboratory; survey of robotic applications in various modern and traditional fields; and guidelines to robot arm design and selection. Offered as EE 4315 and MAE 4345. EE Prerequisite: EE 4314. MAE Prerequisite: MAE 3314, MAE 3319, C or better in EE 2320.

MAE 4347 HEAT EXCHANGER DESIGN (3-0) Design procedure system evaluation; design parameters in heat exchangers. The course considers various heat exchanger configurations and includes student design projects. Prerequisite: MAE 3314.

MAE 4348 COOLING OF ELECTRONIC PACKAGES (3-0) The calculation of heat loads and temperature fields using different cooling techniques. Includes parameter evaluation and design studies. Prerequisite: MAE 3314 (or MAE 3309).

MAE 4350 AEROSPACE VEHICLE DESIGN I (2-3) Analysis & design of an aerospace system such as a complete flight vehicle, a propulsion system, a structural system, or a control system; market analysis, operating studies, mission specification, civil & military certification requirements; design process, methods & tools; configuration concept selection, harmonization of individual design disciplines (aerodynamics, performance, flight mechanics, structures, cost, systems, etc.). Semesters offered: Fall. Prerequisite: MAE 3306 and MAE 3405.

MAE 4351 AEROSPACE VEHICLE DESIGN II (2-3) Analysis, design, and synthesis of an aerospace system such as a complete flight vehicle, a propulsion system, a structural system, or a control system; market analysis, operating studies, mission

specification, civil and military certification requirements; design process, methods and tools; configuration concept selection, harmonization of individual design disciplines (aerodynamics, performance, flight mechanics, structures, cost, systems, etc.). Also included will be economic, environmental, sustainability, manufacturability, safety, social and political considerations. Formal written and oral reports are required. Exit survey forms and exit essays must be submitted to complete the requirements of this course. Semester offered: Spring. Prerequisite: MAE 4350.

MAE 4352 SPACE VEHICLE AND MISSION DESIGN (3-0) Space vehicle design; influence of space environment, astrodynamics, and atmospheric reentry. Space vehicle sub system design; propulsion, attitude determination and control, structural design, thermal control, power and telecommunications. Investigation into mission design concepts and considerations. Prerequisite: C or better in MAE 2323, C or better in MATH 2326.

MAE 4391 SPECIAL PROBLEMS IN MECHANICAL AND AEROSPACE ENGINEERING (3-0) Special problems in mechanical and aerospace engineering for students of senior standing.

MANA 2302 COMMUNICATIONS IN ORGANIZATIONS (3-0) This course focuses on the development of interpersonal business communication skills in the following areas: group communication, written communication (collaborative writing and business letters, memorandums and reports), oral communication (business presentation, meetings and interviews), and listening. The following topics are also addressed: verbal and nonverbal communication, dyadic and organizational communications, communication roles and relationships, small-group communication, communication networks, and the diagnosis and improvement of organizational communications. MANA 2302 will satisfy the cultural and social studies requirement in the College of Business Administration.

MANA 3318 MANAGING ORGANIZATIONAL BEHAVIOR (3-0) This course is an introduction to the factors that influence individual and group behavior in organizations. Emphasizing findings from the field of organizational behavior, topics covered include: individual differences and diversity, social information processing, work attitudes, stress, work motivation, power and influence, negotiation, teams, leadership, and organizational research.

MANA 3319 MANAGEMENT PROCESS THEORY (3-0) Fundamentals of the management process; principles and techniques for all organizations. The basic functions of management: planning, organizing, directing, and controlling. Social responsibilities, political influences, and ethical considerations as they affect the management of organizations. Coverage of international business, production, communications, and decision-making in terms of management activities.

MANA 3320 HUMAN RESOURCE MANAGEMENT (3-0) Process of effective management of human resources and those elements essential to such a process. The

objectives of an adequate personnel program. Effective planning, recruitment, selection, training. Employee compensation and the nature of pay and its relative importance. The nature of union-management relationships. The impact of organized labor upon personnel management.

MANA 3325 ENTREPRENEURSHIP AND VENTURE MANAGEMENT (3-0) The fundamentals of identifying the need for and organizing a small business. Role and characteristics of the entrepreneur and problems of venture initiation. New venture creation and its management through the first two/three years of operation.

MANA 4191 STUDIES IN MANAGEMENT (1-0) Advanced studies, on an individual basis, in the various fields of management. Prerequisite: Senior standing and permission of instructor. May be repeated for credit with consent of department chair.

MANA 4291 STUDIES IN MANAGEMENT (0-0) Advanced studies, on an individual basis, in the various fields of management. Prerequisite: Senior standing and permission of instructor. May be repeated for credit with consent of department chair.

MANA 4320 LABOR RELATIONS (3-0) This course addresses the critical issues in personnel and industrial relations. Application of behavioral science principles and concepts to problems of employee benefits and services, wage and salary administration, union and management relations, collective bargaining, and related personnel maintenance problems. Prerequisite: MANA 3318 and MANA 3320.

MANA 4321 INTERNATIONAL MANAGEMENT (3-0) With greater globalization of economies and industries, managers are being increasingly challenged to manage organizations within a global context. This course seeks to provide students with the skills, knowledge and sensitivity required to be successful managers in organizations and organizational units within a multinational environment. Topics covered include the analysis of environmental forces, the characteristics of international strategies and the importance of organizational design and strategic control in the management of multinational enterprises.

MANA 4322 ORGANIZATIONAL STRATEGY (3-0) An integrative learning experience that focuses on the role of top management in integrating an organization's internal functional activities and external environmental forces. Emphasis is placed on defining economic, technological, ethical, political, and social factors affecting an organization and their consideration in setting goal, strategies, and operating policies. This course serves as the capstone offering for the business major. Prerequisite: ACCT 2301 and 2302, BUSA/STAT/BSTAT 3321, ECON 2305 and 2306, FINA 3313, MANA 3318, and MARK 3321.

MANA 4325 LEADERSHIP IN ORGANIZATIONS (3-0) This course provides a managerial perspective on leadership in formal organizations. Emphasis is placed on team-building, exercising influence, decision-making, and conflict management. Prerequisite: MANA 3318

MANA 4326 DIVERSITY IN ORGANIZATIONS (3-0) This course examines the implications of employee diversity in organizations, an issue of increasing importance. It includes study of the changing demographics of workers, including multiple demographic groups and areas of difference important to organizational treatment and outcomes. This course examines research on treatment, access, and customer discrimination. Legislation related to diversity is also reviewed. This course also provides suggestions for individuals and organizations to increase opportunities and outcomes for workers of all backgrounds. Prerequisite: MANA 3318 and 3320.

MANA 4328 HUMAN RESOURCE STAFFING AND PERFORMANCE MANAGEMENT (3-0) Covers the areas of employee selection and performance management systems. Topics include: recruitment strategies, methods of selection, development and validation of selection and employee appraisal instruments, and implementation of performance management processes. Prerequisite: MANA 3318 and MANA 3320.

MANA 4330 TEAM MANAGEMENT (3-0) This course examines the critical input, process and outcomes variables in the design of and maintenance of highly effective work teams. Topics include: team composition, team norms, team decision-making strategies, intra-team and inter-team conflict, team building, management of effective work teams, and team-based organizational structures. Prerequisite: MANA 3318.

MANA 4331 SEMINAR IN MANAGEMENT (3-0) Readings and discussion of special topics in management. Prerequisite: Junior or senior standing and consent of instructor. May be repeated for credit with consent of department chair.

MANA 4338 SMALL BUSINESS ANALYSIS (3-0) The course focuses on increasing the effectiveness of new ventures and small business operations. The integration of knowledge and application of theories across functional areas are stressed. Prerequisite: MANA 3325.

MANA 4339 DIRECTED STUDIES IN ENTREPRENEURSHIP (3-0) Seminar that exposes students to unique challenges facing new businesses in their efforts to survive and grow. Students interact with members of the local entrepreneurial community.

MANA 4340 BUSINESS AND SOCIETY (3-0) Explores the roles of business organizations and their relationships with individuals, governments, and other businesses from the perspectives of ethics, ideology, and corporate responsibility.

MANA 4341 NEGOTIATIONS AND CONFLICT RESOLUTION (3-0) This course is designed to better understand the nature of conflict and its resolution through persuasion, collaboration, and negotiation. Students will learn theories of interpersonal and organizational conflict and its resolution as applied to personal, corporate, historical, and political contexts. Students will assess their own styles, skills, and values, and develop techniques to better resolve disputes, achieve objectives, and exert influence. Prerequisite: MANA 3318.

MANA 4342 COMPENSATION AND BENEFITS MANAGEMENT (3-0) This course is an introduction to compensation and benefits administration. Attention will be given to the means by which compensation equity is achieved in organizations. Topics covered include job analysis and design, job evaluation, development, the use of wage and salary surveys, and benefit policies and practices. The benefits part of the course will include a discussion of public and private benefit programs and pension plans. Prerequisite: MANA 3318 and MANA 3320.

MANA 4343 TRAINING AND DEVELOPMENT (3-0) This course provides students with a practical approach to training employees in the business environment. Components of training design, including needs assessment, objectives, and evaluation and control of the training and development function. Prerequisite: MANA 3318 and MANA 3320.

MANA 4391 STUDIES IN MANAGEMENT (3-0) Advanced studies, on an individual basis, in the various fields of management. Prerequisite: Senior standing and permission of instructor. May be repeated for credit with consent of department chair.

MANA 4393 MANAGEMENT INTERNSHIP (3-0) Practical training in management. Analysis of theory applied to real life situations. May be used as an advanced business elective only; graded on a pass/fail basis. No credit will be given for previous experience or activities. May not be repeated for credit. Prerequisite: Junior standing and consent of department internship advisor.

MARK 3321 PRINCIPLES OF MARKETING (3-0) The marketing function of the firm from the standpoint of the decision-maker. The marketing variables of products, channels, prices, and promotion as related both to the profitability of the firm and to customer satisfaction. The economic, legal, social, and international implications of marketing actions. Prerequisite: 60 credit hours and ECON 2306.

MARK 3322 PERSONAL SELLING AND SALES MANAGEMENT (3-0) Presents sales principles and skills required by today's professional salesperson, with emphasis on the business-to-business selling environment. Examines current approaches to a variety of sales management challenges including the recruiting, organization, motivation, and evaluation of an effective sales force. Discusses the contributions of personal selling and sales management to the marketing process with focus on the strategic use of the sales force. Prerequisite: MARK 3321.

MARK 3323 INTEGRATED MARKETING COMMUNICATION (3-0) 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 3321.

MARK 3324 BUYER BEHAVIOR (3-0) The psychological and sociological aspects of both industrial and consumer buyer behavior. Motivation, cognition, and learning. Personality characteristics, the study of personal needs, and symbolism, as interrelated with formation of marketing strategy. From a sociological point of view, the emphasis is on group behavior and its effect on marketing decision theory. Prerequisite: MARK 3321.

MARK 3325 INTERNET MARKETING (3-0) Students use theoretical investigation and case analysis to develop skills and strategies necessary for effectiveness in marketing via the internet. Includes marketing via e-mail, Web site strategies, and creation of an internet marketing plan. Prerequisite: MARK 3321.

MARK 4191 STUDIES IN MARKETING (1-0) Advanced studies, on an individual basis, in the various fields of marketing. Prerequisite: 90 credit hours and permission of instructor. May be repeated for credit with consent of department chair.

MARK 4291 STUDIES IN MARKETING (2-0) Advanced studies, on an individual basis, in the various fields of marketing. Prerequisite: 90 credit hours and permission of instructor. May be repeated for credit with consent of department chair.

MARK 4303 RETAIL AND SERVICE MARKETING (3-0) The role of retailing and services in our economic system. Retail management functions such as inventory management, pricing, merchandising, advertising, and sales promotion. Understanding the unique characteristics of services. Creating service marketing strategies and solving service marketing problems. Prerequisite: MARK 3321.

MARK 4311 MARKETING RESEARCH (3-0) Designed to make students intelligent users of marketing research data. The interrelationship between marketing research and marketing management. Methods and techniques used to generate primary data in commercial marketing research. Design of research projects, methods for generating primary data, sampling of human populations, experimental design, and data analysis. Prerequisite: MARK 3321 and BUSA/STAT 3321.

MARK 4322 ADVANCED MARKETING MANAGEMENT AND STRATEGY (3-0) A capstone course designed to help the student develop his/her ability to apply knowledge and analytical skills acquired in the marketing and business curricula. The importance of a structured planning process in formulating and implementing marketing strategies is emphasized. Prerequisite: MARK 3321, 3324, 4311, and 90 credit hours.

MARK 4325 INTERNATIONAL MARKETING (3-0) Explores the techniques of entering the international marketplace. Explains the impact of sociocultural, economic, technological, governmental, and demographic factors on the international marketing mix. Prerequisite: MARK 3321.

MARK 4331 SEMINAR IN MARKETING (3-0) Readings and discussion of special topics in marketing. Prerequisite: Junior or senior standing and consent of instructor. May be

repeated for credit with consent of department chair.

MARK 4391 STUDIES IN MARKETING (3-0) Advanced studies, on an individual basis, in the various fields of marketing. Prerequisite: 90 credit hours and permission of instructor. May be repeated for credit with consent of department chair.

MARK 4393 MARKETING INTERNSHIP (3-0) Practical training in marketing. Analysis of theory applied to real life situations. May be used as an advanced business elective only; graded on a pass/fail basis. No credit will be given for previous experience or activities. May not be repeated for credit. Prerequisite: Junior standing and consent of department internship advisor.

MAS 1131 ISSUES IN COLLEGE ADJUSTMENT (1-0) Faculty, staff and Peer Academic Leaders in group discussion will communicate academic survival information, analyze potential academic and social problems, and assist in implementing individualized corrective measures. Special sections for Maverick Scholars Freshman Interest Groups, students on probation, students exploring majors, and student athletes will require permission to register. Elective only; does not count as a part of the professional certification requirements. Pass-fail grades will be awarded. For entering freshmen or entering transfer students.

MAS 2300 INTRODUCTION TO MEXICAN AMERICAN STUDIES (3-0) A multidisciplinary introduction to the Mexican American/Latino experience. Emphasis on history, culture, and contemporary socioeconomic and policy issues. Required for completion of the Mexican American Studies minor.

MAS 3310 LATINOS IN THE UNITED STATES (3-0) Examines the Latino experience in the U.S. from an interdisciplinary perspective. Discusses the commonalities and cultural differences among various Latino groups, and focuses on important contemporary Latino issues such as education, employment, family and gender, identity, immigration, and politics.

MAS 3312 LATIN AMERICAN CULTURE AND CIVILIZATION (3-0) An interdisciplinary introduction to Latin American society, history and culture. Prerequisite: SPAN 2314 with a grade of C or better. Offered as MAS 3312 and SPAN 3312; credit will be granted for either MAS or SPAN.

MAS 3314 THE LATINA EXPERIENCE (3-0) A course on the social, cultural, and economic experiences of women of Latin American origin in the United States, with special emphasis on Mexican-origin women.

MAS 3317 MEXICAN POLITICS AND U.S.-MEXICO RELATIONS (3-0) Current economic and political systems of Mexico and relevant issues in U.S.-Mexico relations. Trade, immigration, economic dependency, energy, contraband, and other topics. Offered as MAS 3317 and POLS 3317; credit will be given in only one department.

MAS 3319 HUMAN BEHAVIOR AND DIVERSE POPULATIONS (3-0) Introduction to theoretical, practical, and policy issues related to diverse populations. Historical, political, and socioeconomic forces are

examined that maintain discriminatory and oppressive values, attitudes, and behaviors in society and in all levels of organizational behavior. Prerequisite: SOCW 2311, 2313.

MAS 3330 CULTURAL DIVERSITY AND IDENTITY (3-0) The ways identity is constructed in contemporary societies in an increasingly complex and multicultural world. Ethnic, racial, gender, and class identities. How and when identity is asserted and assigned, and how it can both draw boundaries and forge ties between peoples. Formerly listed as ANTH 2350. Credit cannot be given for both ANTH 2350 and 3330. Also listed as MAS 3330; credit cannot be granted for both ANTH 3330 and MAS 3330.

MAS 3348 LATINO IMMIGRATION TO THE U.S. (3-0) Examines Latino immigration from the perspective of sociocultural anthropology. Focuses on how anthropologists have studied Mexican and other Latino immigrants, and discusses contemporary issues such as transnational communities, gender and immigration, citizenship, and immigrantsÿ politics. The course seeks to familiarize students with the largest immigrant community in the U.S. through ethnographic case studies.

MAS 3352 THE SOUTHWEST (3-0) A multicultural history of the southwestern United States from pre-Columbian times to the present. Cultural adaptation to environment; cultural contact and conflict; political, social, and economic change. Also listed as MAS 3352; credit will be granted only once.

MAS 3363 TEXAS TO 1850 (3-0) Multicultural heritage of Texas from pre-Colombian period to early statehood. Cultural contact; social, economic, and political change. Completion of either HIST 3363 or 3364 is recommended for those planning to teach in Texas schools. Also listed as MAS 3363; credit will be granted only once.

MAS 3368 MEXICAN AMERICAN HISTORY (3-0) The role of the Mexican American in the cultural and historical development of the United States with special emphasis on the Southwest. Offered as HIST 3368 & MAS 3368; credit will be granted only once.

MAS 3369 HISTORY OF LATINO RELIGIONS (3-0) Treats selected aspects of Christianity and other religious expression to show their impact on identity formation, gender roles, politics and other aspects of Latino incorporation into American society. Offered as HIST 3369 and MAS 3369; credit will be granted only once.

MAS 4313 TOPICS IN HISPANIC CULTURE (3-0) Among the topics are Spanish or Latin American music, television, radio, film, and literature as culture. May be repeated for credit as topic changes. Prerequisite: SPAN 3315 with a grade of C or better. Offered as MAS 4313 and SPAN 4313; credit will be given for MAS 4313 or SPAN 4313 but not both in a given semester.

MAS 4315 TOPICS IN CONTEMPORARY LATIN-AMERICAN LITERATURE AND CULTURE, MODERNISM TO THE PRESENT (3-0) Topics may include: Latin-American literature and culture of Modernism, modern Latin-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. Prerequisite: SPAN 3315 with a grade of C or better. Offered as MAS 4315 or SPAN 4315; credit will be given for MAS 4315 or SPAN 4315 but not both in a given semester.

MAS 4317 CHICANO LITERATURE (3-0) Mexican-American literature, with special attention to its social, cultural, and linguistic background. Also listed as MAS 4317 or SPAN 4317; credit will be given for MAS 4317 or SPAN 4317 but not both in a given semester. Prerequisite: SPAN 3315 with a grade of C or better.

MAS 4318 MEXICAN LITERATURE (3-0) Studies in Mexican fiction, poetry, drama, and literary essay. Listed as MAS 4318 or SPAN 4318; credit will be given for MAS 4318 or SPAN 4318 but not both in a given semester. Prerequisite: SPAN 3315 with a grade of C or better.

MAS 4319 POLITICS OF MEXICAN AMERICANS (3-0) The influence of Mexican-American politics on United States government and policies with special attention given to organizational development, participation in political parties, leadership, ideology, the Chicano Movement, current issues, and relations with other ethnic groups. Offered as MAS 4319 and POLS 4319; credit will be given in only one department.

MAS 4327 WOMEN IN HISPANIC LITERATURE (3-0) Considers women as characters in and writers of Hispanic literature. Includes the analysis of themes, language, and how the writings of women often give voice to lesser-known aspects of culture. Also listed as SPAN 4327. Credit cannot be given for both.

MAS 4350 TOPICS IN MEXICAN AMERICAN STUDIES (3-0) Subjects of interest in Mexican American and Latino studies. May be repeated for credit when topic changes.

MAS 4352 U.S. IMMIGRATION POLICY AND THE AMERICAN DREAM (3-0) Focus on American identity through the examination of immigration to the United States, past and present, and the evolution of U.S. immigration policy. Topics include U.S. attitudes and policy responses to European, Asian, and Latin American immigration and to the incorporation of the descendants of African slaves and Native Americans. Emphasis on the decline of the melting pot idea and the incorporation of recent immigrants. Offered as MAS 4352 and POLS 4352. Credit will be granted only once.

MAS 4360 CONFERENCE COURSE (3-0) Permission of the director of the Center for Mexican American Studies required. Topics for research or study in designated areas assigned in consultation with course instructor.

MAS 4368 HISTORY OF MEXICO (3-0) Mexican history from its pre-Colonial indigenous foundation to the current situation. A social and economic analysis of the major events in Mexican history with emphasis upon the 19th and 20th centuries. The major theme in this class is the growth of Mexican nationalism and its relation to region, religion and ethnicity. Also listed as MAS 4368.

MAS 4370 CAPSTONE MEXICAN AMERICAN STUDIES (3-0) In consultation with the course instructor, students will design a research project or an internship that will integrate their previous course work into a capstone experience in either the applied or the cultural studies stream of the Mexican American Studies minor.

MAS 4391 CONFERENCE COURSE (3-0) Permission of the director of the Center for Mexican American Studies required. Topics for research or study in designated areas assigned in consultation with course instructor.

MATH 0301 THEA TEST PREPARATION (3-0) Review of topics covered on the Texas Higher Education Assessment (THEA) test (formerly the Texas Academic Skills Program [TASP] test), including algebra and geometry. Credit in this course does not fulfill any degree requirement.

MATH 0302 FUNDAMENTALS OF ALGEBRA (3-0) Basic algebraic operations, linear equations and inequalities, polynomials, rational expressions, factoring, exponents and radicals, and quadratic equations. Credit in this course does not fulfill any degree requirement. Prerequisite: MATH TASP score greater than 219.

MATH 1301 ELEMENTARY MATHEMATICAL MODELING (3-0) Intended for Liberal Arts majors to develop student capabilities in reasoning, analytical thinking, and problem solving. The majority of time and effort will be on solving word problems, with less emphasis on algebra than MATH 1302. Problems include growth projections, statistical modeling, optimization, and money problems, ie compound interest, amortization of loans. A graphing calculator, such as TI-83, is required. Business majors should enroll in MATH 1315. Science/Engineering majors should enroll in Math 1322. Credit may be received for only one of MATH 1301, MATH 1302, or MATH 1315. The Math Aptitude Test (MAT) is required to register for this course. See http://www.uta.edu/math/pages/main/mpt.htm for test details.

MATH 1302 COLLEGE ALGEBRA (3-0) Linear, quadratic and higher order polynomial equations and inequalities solved algebraically, graphically and numerically; graphs and operations on relations and functions; real and complex zeros of polynomials and rational functions; exponential and logarithmic functions; systems of linear equations; matrices. A graphing calculator, such as the TI-83, is required for this course. Business majors should enroll in Math 1315. The Math Aptitude Test (MAT) is required to register for this course. See http://www.uta.edu/math/pages/main/mpt.htm for test details.

MATH 1303 TRIGONOMETRY (3-0) Trigonometric functions, radian measure, solution of triangles, graphs of trigonometric functions, trigonometric identities and equations, and complex numbers. This course is not intended for Science majors. The Math Aptitude Test (MAT) is required to register for this course. See http://www.uta.edu/math/pages/main/mpt.htm for test details.

MATH 1308 ELEMENTARY STATISTICAL

ANALYSIS (3-0) Descriptive statistics, relationships between variables, interpretation of data and graphs, rudiments of probability, elementary statistical models, hypothesis testing, inference, and estimation. The Math Aptitude Test (MAT) is required to register for this course. See http://www.uta.edu/math/pages/main/mpt.htm for test details.

MATH 1313 LIBERAL ARTS HONORS MATHEMATICS (3-0) Topics include the development of the real number system, different orders of infinity, the idea of convergence and how this led to the development of calculus, the concept of a mathematical proof, the conceptual foundations of topology, networks, and knot theory, and modern applications of mathematics to the sciences.

MATH 1315 COLLEGE ALGEBRA FOR ECONOMICS & BUSINESS ANALYSIS (3-0) Presents material covered in a traditional algebra course but with emphasis toward business applications. Linear equations, systems of linear equations, systems of linear inequalities, elements of matrix algebra and probability. Credit may be received for only one of MATH 1301, MATH 1302, or math 1315. The Math Aptitude Test (MAT) is required to register for this course. See http://www.uta.edu/math/pages/main/mpt.htm for test details.

MATH 1316 MATHEMATICS FOR ECONOMICS AND BUSINESS ANALYSIS (3-0) Presents some of the mathematical tools that are useful in the analysis of business and economic problems. Topics are: compound interest, annuities, differential and integral calculus. Prerequisite: C or better in MATH 1315 or MATH 1302.

MATH 1319 FORTRAN PROGRAMMING AND COMPUTER LITERACY (2-2) Computing techniques using the Fortran programming language. Word processing, spreadsheets, e-mail, Internet access, library search. This course will satisfy both the computer programming and computer literacy requirements for math majors. Prerequisite: MATH 1323 or 1426 or concurrent registration.

MATH 1322 PRECALCULUS I (3-0) This is the first semester of a two-semester sequence to prepare students for the study of calculus. An emphasis will be placed on introducing vocabulary, notation, and concepts encountered in calculus. Topics include: a review of fundamental algebra concepts, equations, inequalities, functions, graphs, polynomial functions, systems of equations, exponential functions, and logarithmic functions. The Math Aptitude Test (MAT) is required to register for this course. See http://www.uta.edu/math/pages/main/mpt.htm for test details.

MATH 1323 PRECALCULUS II (3-0) This is the second semester of a two semester sequence to prepare students for the study of calculus. An emphasis will be placed on introducing vocabulary, notation and concepts that are basic to the study of first year calculus. Course topics include: right angle trigonometry, unit circle trigonometry, trigonometric identities, trigonometric functions and their graphs, trigonometric equations, rational functions

and topics from analytic geometry. Prerequisite: C or better in MATH 1322 or the Math Aptitude Test (MAT) is required to register for this course. See http://www.uta.edu/math/pages/main/mpt.htm for test details.

MATH 1324 ALGEBRA AND TRIGONOMETRY (3-0) A fast-paced summary study of the topics of MATH 1302 and 1303. This course is not intended for calculus track students; those students should take MATH 1322 and 1323. Credit cannot be received for MATH 1324 and MATH 1302 or 1303. The Math Aptitude Test (MAT) is required to register for this course. See http://www.uta.edu/math/pages/main/mpt.htm for test details.

MATH 1325 ANALYTIC GEOMETRY (3-0) Vectors, lines in two dimensions, circles, conics, transformation of coordinates, polar coordinates, parametric equations, and the solid analytic geometry of vectors, lines, planes, cylinders, spherical and cylindrical coordinates. The Math Aptitude Test (MAT) is required to register for this course. See http://www.uta.edu/math/pages/main/mpt.htm for test details.

MATH 1330 ARITHMETICAL PROBLEM SOLVING (3-0) This is a course in small and large group problem solving, with emphasis on reasoning and writing. Topics include problem solving, sets, operations and relations, arithmetic, place value and bases, propositional logic, fractions, number theory, number systems and estimation. Prerequisite: C or better in MATH 1302 and enrollment as an education major.

MATH 1331 GEOMETRICAL INFERENCE AND REASONING (3-0) A discovery-oriented exploration of two-and three-dimensional geometry, with emphasis on reasoning and writing. Topics include constructions, polygons, tessellations, polyhedra, symmetry, rigid motions in the plane, measurement, and discovering theorems. Prerequisite: C or better in MATH 1330 and enrollment as an education major.

MATH 1332 FUNCTIONS, DATA, AND APPLICATIONS (3-0) An exploration of interpreting data, using cooperative groups, spreadsheets and mathematical models. Topics include graphs, applications to economics and natural sciences, function concepts, counting principles, and basic probability and statistics. Prerequisite: C or better in MATH 1330 and enrollment as an education major.

MATH 1421 CONSOLIDATED PRECALCULUS (4-0) A one-semester coverage of the topics of MATH 1322 and MATH 1323. This course is intended for calculus track students who are unable to qualify for MATH 1426 (Calculus I) but are able to address the necessary prerequisites in one semester. Credit cannot be received for MATH 1421 and 1322 or 1323. Permission of a math undergraduate advisor is required.

MATH 1426 CALCULUS I (3-2) Concepts of limit, continuity, differentiation and integration; applications of these concepts. Prerequisite: C or better in MATH 1323 or MATH 1421 or the Math Aptitude Test (MAT) is required to register for this course. See http://www.uta.edu/math/pages/main/mpt.htm for test details.

MATH 2326 CALCULUS III (3-0) Partial differentiation, multiple integrals (with applications), line integrals, Green's Theorem, surface integrals, Stokes' Theorem, divergence theorem. Prerequisite: C or better in MATH 2425.

MATH 2350 MATHEMATICAL MODELING IN ECOLOGY (3-0) An introductory course in modeling techniques in biology with emphasis on construction and interpretation of models in ecology and epidemiology. Students will work with mathematical models chosen from areas such as optimization, statistics, difference equations and differential equations. Offered as BIOL 2350 and MATH 2350: credit will be granted only once. Prerequisite: C or better in BIOL 1441 and MATH 1426.

MATH 2425 CALCULUS II (3-2) Applications of integration, techniques of integration, parametric equations, polar coordinates, sequences, series vectors, dot product, cross product, planes and quadric surfaces. Prerequisite: C or better in MATH 1426.

MATH 3300 INTRODUCTION TO PROOFS (3-0) Techniques for constructing proofs for various propositions. The propositions chosen exhibit properties of functions, relations, sets, cardinality, and other ideas in mathematics. An axiomatic approach to some areas in mathematics. Oral presentations of proofs are required. Prerequisite: C or better in MATH 1426. MATH 2425 is strongly encouraged.

MATH 3301 FOUNDATIONS OF GEOMETRY (3-0) A development of the foundations of geometry. Prerequisite: C or better in MATH 2425.

MATH 3302 MULTIVARIATE STATISTICAL METHODS (3-0) Topics in multivariate data analysis with applications in various areas of interest, including multiple regression, analysis of experimental designs, covariate adjustment, non-linear regression and the use of standard multivariate statistical packages. Prerequisite: MATH 3316 or consent of instructor.

MATH 3303 MATHEMATICAL GAME THEORY (3-0) Two-person zero-sum games, solving matrix games by linear programming, two-person non-zero sum games, noncooperative n-person games, Nash equilibrium points and refinements, cooperative n-person games, core, Shapley value, and other concepts of solution. Applications to cost allocation, fair division, and voting power. Prerequisite: C or better in MATH 3330 or MATH 3319, or consent of the instructor.

MATH 3304 LINEAR OPTIMIZATION APPLICATIONS (3-0) An introduction to basic methods of optimization with applications to optimal resource application, minimal cost allocation and interpersonal decision making in noncooperative and cooperative environments. Includes simplex method, duality, zero sum games, transportation and assignment. Prerequisite: C or better in MATH 3330.

MATH 3307 ELEMENTARY NUMBER THEORY (3-0) Various topics in elementary number theory. Divisibility, congruences, quadratic reciprocity, and multiplicative functions. Prerequisite: 2.0 or better in nine hours of college mathematics.

MATH 3313 INTRODUCTION TO PROBABILITY (3-0) Basic concepts in probability, random variables, probability distributions, functions of random variables, moment generating functions, central limit theorem and its role in statistics, joint probability functions and joint probability density functions, joint cumulative distribution functions, conditional and marginal probability distributions, covariance and correlation coefficients, transformation and order statistics. Prerequisite: MATH 2326.

MATH 3314 DISCRETE MATHEMATICS (3-0) An introduction into discrete structures. Propositional calculus, sets and operations, functions, induction, counting, relations and matrices, equivalences and partial orders, graphs and shortest path algorithms, trees and minimal spanning trees, tree traversal, elements of Boolean algebra. Prerequisite: C or better in MATH 1426.

MATH 3315 MATHEMATICAL MODELS (3-0) Methods for solving, by means of mathematics, problems which occur in other disciplines such as physics, engineering, biology, and economics. Basic mathematical tools are chosen from areas such as optimization, probability, differential equations, and computer-oriented mathematics. Problems arising in other disciplines or industrial applications are emphasized. Subject matter will depend on the instructor. Prerequisite: C or better in MATH 2326, or permission of instructor.

MATH 3316 STATISTICAL INFERENCE (3-0) A comprehensive study of basic statistical methods. Topics include descriptive statistics, numeracy, report writing, basic probability, experimental design and analysis. Prerequisite: C or better in MATH 1302 and 1308 or permission of the Math Department.

MATH 3318 DIFFERENTIAL EQUATIONS (3-0) Ordinary differential equations with emphasis on the solutions and analysis of first and higher order differential equations drawn from fields of physics, chemistry, geometry, and engineering. Prerequisite: C or better in MATH 2326 or concurrent registration.

MATH 3319 DIFFERENTIAL EQUATIONS & LINEAR ALGEBRA (3-0) Introductory course with emphasis on solution techniques. Ordinary differential equations, vector spaces, linear transformations, matrix/vector algebra, eigenvectors, Laplace Transform, and systems of equations. Math majors will not receive credit for this course. Prerequisite: C or better in MATH 2326 or concurrent enrollment.

MATH 3321 ABSTRACT ALGEBRA I (3-0) Groups including Lagrange's Theorem, Cauchy's Theorem, the homomorphism theorems, and symmetric groups. Prerequisite: C or better in MATH 3300 and MATH 3330.

MATH 3330 INTRODUCTION TO MATRICES AND LINEAR ALGEBRA (3-0) Solving systems of linear equations, matrix operations, determinants, vector spaces, linear transformation, orthogonality, Gram-Schmidt process, projections, and eigenvalues and eigenvectors. Prerequisite:

C or better in MATH 1426. MATH 2425 is strongly encouraged.

MATH 3335 ANALYSIS I (3-0) Real numbers, sequences, series, limits of functions, continuity. Prerequisite: Grade of C or better in both MATH 2326 and MATH 3300.

MATH 3345 NUMERICAL ANALYSIS AND COMPUTER APPLICATIONS (3-0) Numerical solutions of nonlinear equations, numerical integration and differentiation, polynomial interpolation, solutions of linear systems, and an introduction to spline functions. Prerequisite: Grade of C or better in both MATH 2326 and MATH 3330.

MATH 3350 DYNAMICAL SYSTEMS IN BIOLOGY (3-0) An introductory course in the existence and properties of solutions of differential and difference equations, qualitative analysis methods, and numerical solutions of differential equations using finite-difference methods. Offered as BIOL 3350 and MATH 3350: credit will be granted only once. Prerequisite: C or better in BIOL/MATH 2350 or consent of the instructor.

MATH 3351 PROBABILITY AND RANDOM PROCESSES IN BIOLOGY (3-0) Introduction to random processes arising in biological modeling. Topics include introduction to probability, Poisson processes, birth-death processes, Markov chains, and Markov processes. Course taught as BIOL 3351 and MATH 3351; credit will be granted only once. Prerequisite: C or better in BIOL 3350 or MATH 3350 or consent of the instructor.

MATH 4150 SEMINAR IN MATHEMATICAL BIOLOGY (1-0) Formulation and definition of interdisciplinary research problems in Mathematical Biology, the formulation and execution of strategies of solution, and the presentation of results. Research under faculty supervision and mentorship involving collaboration within a small group. Prerequisite: Consent of the instructor.

MATH 4180 ORAL COMMUNICATION OF MATHEMATICS (1-0) This course trains students in giving effective oral presentations of mathematics and topics involving mathematics. Students will give presentations to the class and evaluate the presentations of their classmates. Topics may be chosen from mathematics and science journals at a level suitable for undergraduates, from books and articles on the history and development of mathematics, or from previous course material.

MATH 4191 SPECIAL TOPICS IN MATHEMATICS (1-0) Special topics in mathematics are assigned to individuals or small groups. Faculty members closely supervise the projects and assign library reference material. Small groups will hold seminars at suitable intervals. May be repeated for credit. Prerequisite: senior standing and written permission of the instructor & department chair.

MATH 4291 SPECIAL TOPICS IN MATHEMATICS (2-0) Special topics in mathematics are assigned to individuals or small groups. Faculty members closely supervise the projects and assign library reference material. Small groups will hold seminars at suitable intervals. May be repeated for credit. Prerequisite: senior standing and written permission of the

instructor & department chair.

MATH 4303 INTRODUCTION TO TOPOLOGY (3-0) A first course in topology from the axiomatic point of view. Prerequisite: C or better in MATH 3335.

MATH 4311 STOCHASTIC MODELS AND SIMULATION (3-0) A study of processes, whose outcomes are governed by chance, through a combination of lectures and computer lab sessions. Experiments include random number generation, coin tossing and other games of chance, random walks, Markov Chains, Poisson processes, birth-death processes, branching processes, and Brownian Motion. A foundation for modeling random phenomena in sciences, engineering and business. Prerequisite: C or better in MATH 2326 and knowledge of basic probability (MATH/STATS 3313 or equivalent), or consent of instructor

MATH 4312 PROBABILITY AND MATHEMATICAL STATISTICS II (3-0) Basic probability theory, random variables, expectation, probability models, generating functions, transformations of random variables, limit theory. Prerequisite: MATH 3313. NOTE: This class is offered as MATH 4312 and MATH 5312. Students taking MATH 4312 will attend MATH 5312.

MATH 4313 APPLICATIONS OF MATHEMATICAL STATISTICS (3-0) A continuation of MATH 3313. Sampling distributions, estimation of parameters, confidence intervals, testing of hypotheses, linear regression, linear time series models, moving average, autoregressive and/or autoregressive integrated moving average (ARIMA) models, estimation, data analysis and forecasting with time series models and forecast errors and confidence intervals. Prerequisite: C or better in MATH 3313 or STATS 3313.

MATH 4314 ADVANCED DISCRETE MATHEMATICS (3-0) Finite automata, Turing machines, formal languages, graph theory, combinatorial optimization, complexity of algorithms, P versus NP, and decidable versus undecidable problems. Prerequisite: C or better in MATH 3314.

MATH 4318 MATHEMATICAL METHODS FOR SCIENCES (3-0) Infinite series: complex variables; determinants; matrices; tensor analysis; Fourier analysis; differential equations; special functions. Prerequisite: C or better in MATH 3318 or MATH 3319 and eight hours in the discipline of appropriate department.

MATH 4320 ADVANCED DIFFERENTIAL EQUATIONS (3-0) The existence and properties of solution of differential equations. Prerequisite: C or better in MATH 3318 or 3319.

MATH 4321 ABSTRACT ALGEBRA II (3-0) Rings and field theory, including polynomial rings and field extensions. Prerequisite: C or better in MATH 3321.

MATH 4322 INTRODUCTION TO COMPLEX VARIABLES (3-0) An introduction to the theory of functions of a complex variable and also an introduction to applications including uses of the residue theory, contour integration and conformal mapping. Prerequisite: C or better in MATH 2326.

MATH 4324 INTRODUCTION TO PARTIAL

DIFFERENTIAL EQUATIONS (3-0) Methods of solutions of selected elliptic, parabolic, and hyperbolic partial differential equations with reference to physical applications. Prerequisite: C or better in MATH 3318 or MATH 3319.

MATH 4334 ADVANCED MULTIVARIABLE CALCULUS (3-0) The properties of continuous mappings from N-dimensional Euclidean space to M-dimensional Euclidean space; an introduction to differential forms and vector calculus, based upon line integrals, surface integrals, and the general Stokes theorem. Prerequisite: C or better in MATH 3335.

MATH 4335 ANALYSIS II (3-0) Integration, sequences and series of functions, and metric spaces. Prerequisite: C or better in MATH 3335.

MATH 4345 NUMERICAL ANALYSIS & COMPUTER APPLICATIONS II (3-0) Numerical solutions for ordinary differential equations, boundary value problems, minimizations of multivariate functions, and methods of least squares. Prerequisite: C or better in MATH 3345.

MATH 4350 PRECALCULUS FOR MID-LEVEL MATHEMATICS TEACHERS (3-0) This course serves to bridge the gap between algebra and calculus for middle level teachers. It will develop a firm understanding of the concept of function, how to graphically represent various functions, analyze their behavior and create new functions from old. Functions will be used to model real-life situations. The course will focus on the essential elements of precalculus, as given by the TEKS. It will develop the foundations for functions and explore functions as a unifying theme. This includes transformations, inverses, and solving equations. These foundational ideas will be explored and applied to specific functions, including exponential, logarithmic, power, polynomial, rational, and trigonometric functions. There will be an emphasis on multiple representations of mathematical ideas: verbal, concrete, pictorial, tabular, symbolic and graphical. Throughout, the mathematical connections between precalculus and school mathematics will be highlighted. Prerequisite: C or better in MATH 1302,1308, 1330, 1331 and 1332 This course does not count toward a degree in mathematics.

MATH 4351 CALCULUS FOR MID-LEVEL MATHEMATICS TEACHERS (3-0) This course serves to introduce the basic concepts of calculus to middle level teachers. The primary goal is to help teachers develop a fundamental understanding of the key mathematical ideas in calculus in order to broaden their mathematical perspective and gain insight into the topics in the middle level curriculum which are related and foundational to its development. Participants will develop conceptual knowledge of the processes of differentiation and integration, and understanding of their applications and an understanding of the relationship between the two processes. Prerequisite: C or better in MATH 4350. This course does not count toward a degree in mathematics.

MATH 4381 MATHEMATICS RESEARCH (3-0) Formulation and definition of research problems, the formulation and execution of strategies of solution, and the presentation

of results. Prerequisite: consent of instructor. Recommendation by other faculty encouraged.

MATH 4391 SPECIAL TOPICS IN MATHEMATICS (3-0) Special topics in mathematics are assigned to individuals or small groups. Faculty members closely supervise the projects and assign library reference material. Small groups will hold seminars at suitable intervals. May be repeated for credit. Prerequisite: senior standing and written permission of the instructor & department chair.

MATH 4392 ADVANCED TOPICS IN MATHEMATICS (3-0) Varies from semester to semester. New developments in mathematics, in-depth study of a topic not covered in other courses, or a special faculty expertise made available to undergraduates. May be repeated for credit as topic varies. Prerequisite: permission of instructor.

MATH 4393 HONORS THESIS/SENIOR PROJECT (3-0) Required of all students in the University Honors College. During the senior year the student must complete a thesis or a project under the direction of a faculty member in the math department. Prerequisite: enrollment in the University Honors College and written permission of the instructor and chair.

MATH 4394 UNDERGRADUATE RESEARCH EXPERIENCES (3-0) Research under faculty supervision and mentorship involving collaboration within a small group. The topic varies from semester to semester, is determined by the faculty teaching the course, and is announced in advance. The course promotes active learning based on inquiry, development of higher-order thinking skills, and meaningful scientific research. Prerequisite: consent of instructor.

MILS 0180 LEADERSHIP LAB (0-3) A practical laboratory of applied leadership and skills. Student-planned, -organized and -conducted training, oriented toward leadership development. Laboratory topics include marksmanship, small unit tactics, multi-tiered programs focused on individual skill levels. Uniform and equipment provided. Concurrent enrollment in appropriate Military Science course (1141, 1142, 2251, 2252, 3341, 3342, 4341, 4342, 2291 and/or 4391) required. Prerequisite: permission from the Professor of Military Science (PMS). May be repeated for credit.

MILS 1141 FOUNDATIONS OF LEADERSHIP (1-0) Fundamental concepts of leadership in a profession in both classroom and outdoor laboratory environments. The study of time management skills, basic drill and ceremony, physical fitness, repelling, leadership reaction course, first aid, making presentations and marksmanship. Concurrent enrollment in MILS 0180 leadership lab and mandatory participation in independent physical fitness training, plus optional participation in a weekend field training exercise.

MILS 1142 INTRODUCTION TO LEADERSHIP (1-3) Application of principles of leadership through participation in physically and mentally challenging exercises with upper division ROTC students. Course focuses on communication skills, organizational ethics, and study and time management

techniques. Concurrent enrollment in MILS 0180 leadership lab and mandatory participation in individual physical fitness training, plus optional participation in a weekend field training exercise.

MILS 2251 INDIVIDUAL/TEAM DEVELOPMENT (2-0) Application of ethics-based leadership skills and fundamentals of ROTC's Leadership Development Program. Develop skills in oral presentations, concise writing, event planning, coordination of group efforts, advanced first aid, land navigation, and military tactics. Concurrent enrollment in MILS 0180 leadership lab and mandatory participation in individual physical fitness training, plus optional participation in a weekend field training exercise.

MILS 2252 INDIVIDUAL/TEAM MILITARY TACTICS (2-3) Introduction to individual and team aspects of military tactics in small unit operations. Includes use of radio communications, making safety assessments, movement techniques, planning for team safety/security, and pre-execution checks. Concurrent enrollment in MILS 0180 leadership lab and mandatory participation in individual physical fitness training, plus optional participation in a weekend field training exercise.

MILS 2291 CONFERENCE COURSE (0-0) Independent study. Designed to supplement the military science curricula by a student's concentrated study in a narrower field of military skill or subject matter. May be repeated for credit. Does not count for PE credit. Prerequisite: permission of the Professor of Military Science (PMS).

MILS 2343 LEADERSHIP TRAINING CAMP (LTC) (0-0) A rigorous five-week summer camp conducted at an Army post, stresses leadership, initiative and self-discipline. No military obligation incurred. Completion of MILS 2343 qualifies a student for entry into the Advanced Course. Three different cycles offered during the summer, but spaces are limited by the Army. Candidates can apply for a space any time during the school year prior to the summer. Open only to students who have not taken all four of MILS 1141, 1142, 2251, and 2252, and who pass an ROTC physical examination. P/F grade only.

MILS 3341 LEADERSHIP I (3-0) Development of ability to evaluate situations, plan and organize training, learn military tactics, review case studies in leadership management and develop teaching and briefing skills. Concurrent enrollment in MILS 0180 mandatory. Prerequisite: permission of the Professor of Military Science (PMS).

MILS 3342 LEADERSHIP II (3-0) Practical application of squad and platoon leadership in tactical situations; operation of small unit communications systems. Development of the leaders' ability to express themselves, analyze military problems, and prepare and deliver logical solutions. Demanding physical fitness training and performance-oriented instruction, in preparation for Summer Field Training. Concurrent enrollment in MILS 0180 mandatory. Prerequisite: permission of the Professor of Military Science (PMS).

MILS 3443 Leader Development and

Assessment Course (0-0) A five-week off-campus field training course stressing the practical application of leadership management, with emphasis on tactical and technical military field skills. Open only to students who have successfully completed MILS 3341 and 3342, P/F grade only.

MILS 3495 NURSING ADVANCED SUMMER TRAINING (4-4) Seven-week off-campus internship at a major U.S. Army hospital for ROTC nursing students. A nursing practicum with the focus on providing the student with hands-on experience which integrates clinical, interpersonal, and leadership knowledge and skills. Practical experience and familiarization with Army nursing in a variety of clinical tasks in the areas of medical-surgical nursing, pediatrics, obstetrics, and, in some cases, intensive care in ICUs. May be used for partial credit for NURS 3647 or NURS 3347 with prior arrangement and approval of the Dean of Nursing.

MILS 4341 ADVANCED LEADERSHIP I (3-0) Stresses leadership qualities necessary for Command and Staff functions and operations. Plan and conduct meetings, briefings and conferences. Introduction to the Army Logistical System and the Personnel Management System. Preparation of after-action reports. Plan and conduct physical training programs. Concurrent enrollment in MILS 0180 mandatory. Prerequisite: permission of the Professor of Military Science (PMS).

MILS 4342 ADVANCED LEADERSHIP II (3-0) Provides students with a basic working knowledge of the Military Justice System with emphasis on company-level actions and requirements, including Law of Land Warfare. Examines the ethical standards, professional roles, responsibilities, and uniqueness of the profession of officership. Concurrent enrollment in MILS 0180 mandatory. Prerequisite: permission of the Professor of Military Science (PMS).

MILS 4391 CONFERENCE COURSE (0-0) Independent study on an individual basis on current topics in military science. Performance will be assessed by oral examination, written test, or research paper as arranged. May be repeated for credit. Prerequisite: permission of the Professor of Military Science (PMS).

MODL 1441 TOPICS IN MODERN LANGUAGE LEVEL I (3-2) (Chinese, etc.). This course parallels the 1441 courses in FREN, GERM, RUSS, and SPAN.

MODL 1442 TOPICS IN MODERN LANGUAGE LEVEL II (3-2) (Chinese, etc.). This course parallels the 1442 courses in FREN, GERM, RUSS, and SPAN.

MODL 2313 TOPICS IN MODERN LANGUAGE LEVEL III (3-2) (Chinese, etc.). This course parallels the 2313 courses in FREN, GERM, RUSS, and SPAN.

MODL 2314 TOPICS IN MODERN LANGUAGE LEVEL IV (3-2) (Chinese, etc.). This course parallels the 2314 courses in FREN, GERM, RUSS, and SPAN.

MODL 2391 INDEPENDENT STUDY (3-0) Independent study; consultation with instructor on a regular basis. May be repeated for credit.

MODL 3301 TOPICS IN COMPARATIVE LANGUAGES, CULTURE, AND LITERATURES (3-0) Comparisons of language and language/culture issues across languages and/or time. Topics may include folklore across cultures, comparison of language and cultural production (e.g., international film and international feminism). May be counted toward fulfilling core curriculum requirement in literature or culture. May be repeated for credit when content changes. No prerequisites.

MODL 3391 INDEPENDENT STUDY (3-0) Independent study; consultation with instructor on a regular basis. May be repeated for credit.

MODL 4391 INDEPENDENT STUDY (3-0) Independent study; consultation with instructor on a regular basis. May be repeated for credit.

MSE 3300 MATERIALS SCIENCE (3-0) 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. Prerequisites: CHEM 1442 or CHEM 1465; PHYS 1444.

MSE 3324 STRUCTURE & MECHANICAL BEHAVIOR OF MATERIALS (3-0) Crystal structure and defects in materials. Diffusion, phase diagrams and phase transformations in metallic systems. The inter relationships between processing, structure, and properties of engineering materials with emphasis on the mechanical behavior of metals, polymers, and composite materials. Semesters offered: Fall, Spring, Long Summer. Prerequisites: C or better in CHEM 1465, C or better in PHYS 1444, C or better in MAE 2312 (or concurrent enrollment).

MSE 4191 ADVANCED PROBLEMS IN MATERIALS SCIENCE & ENGINEERING (1-0) The investigation of special individual problems in materials science and engineering under the direction of a faculty member. Prerequisite: consent of the head of the department.

MSE 4291 ADVANCED PROBLEMS IN MATERIALS SCIENCE & ENGINEERING (2-0) The investigation of special individual problems in materials science and engineering under the direction of a faculty member. Prerequisite: consent of the head of the department.

MSE 4310 POLYMER MATERIALS SCIENCE (3-0) 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. Prerequisite: MSE 3300 or MAE 2321.

MSE 4315 INTRODUCTION TO COMPOSITES (3-0) Composite classification, laminate coding, fabrication, processing and properties of composite laminates, point stress analysis and failure prediction of composite laminates, material allowable, issues in composite structural design. Also offered as MAE 4315. Prerequisite: MAE

1312 and MAE 2312; plus one of MSE 3300 or MSE 3324 or MAE 3324; and one of MAE 2322 or CE 2311.

MSE 4320 NANOSCALE MATERIALS (3-0) Introduction to the synthesis and characterization of nano-materials. Fundamental concepts of surface physics and chemistry. Survey of electronic, biological and biomedical applications. The materials presented include semiconductor and metal thin films, nanoparticles and nanowires, carbon fullerenes and nanotubes, and organic nanoparticles. Prerequisite: MSE 3300 or MSE 2321.

MSE 4336 ADVANCED MECHANICAL BEHAVIOR OF MATERIALS (3-0) Concept of stress and strain, theory of plasticity; elementary dislocation theory. Deformation of single crystals; strengthening mechanisms like solid solution strengthening, and precipitation hardening. Fracture mechanics; microscopic aspects of fracture, fatigue, and creep of materials; design and processing of materials for improved mechanical properties. Also offered as MAE 4336. Prerequisite: MSE 3324 or MAE 3324; MAE 2312.

MSE 4337 FATIGUE OF ENGINEERING MATERIALS (3-0) 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. Prerequisite: MSE 3324 or MAE 3324.

MSE 4338 FAILURE ANALYSIS (2-3) Theory and practice of techniques for determining modes of failure and fracture of engineering materials. Also offered as MAE 4338. Prerequisite: MSE 3324 or MAE 3324.

MSE 4339 FRACTURE MECHANICS (3-0) Theory and applications of fracture mechanics. Stress analysis of cracks, crack-tip plasticity, fatigue crack growth, and stress corrosion cracking. Applicability to materials selection, structural design, failure analysis, and structural reliability. Also offered as MAE 4339. Prerequisite: MSE 3324 or MAE 3324; MAE 2312.

MSE 4390 SPECIAL TOPICS IN MATERIALS SCIENCE & ENGINEERING (3-0) Special topics pertinent to the field of materials science and engineering, such as electrical, optical, and magnetic properties of materials, will vary from semester to semester depending on the availability of faculty. May be repeated, provided that topics are different. Prerequisite: prior approval by the MSE undergraduate advisor.

MSE 4391 ADVANCED PROBLEMS IN MATERIALS SCIENCE & ENGINEERING (3-0) The investigation of special individual problems in materials science and engineering under the direction of a faculty member. Prerequisite: consent of the head of the department.

MUSI 0101 MARCHING BAND (1-0) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0102 WIND SYMPHONY (1-0) The music major must receive credit for the

ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0103 SYMPHONIC WINDS (1-0) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0104 A CAPPELLA CHOIR (1-0) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0106 CHAMBER SINGERS (0-3) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0108 UNIVERSITY SINGERS (1-0) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0109 KEYBOARD ENSEMBLE (1-0) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0110 WOODWIND ENSEMBLE (3-0) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0111 BRASS CHOIR (3-0) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0112 JAZZ ORCHESTRA (1-0) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0114 PERCUSSION ENSEMBLE (1-0) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0115 MUSICAL THEATRE / OPERA LAB (0-1) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director. By audition only.

MUSI 0116 JAZZ ENSEMBLE (1-0) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0117 TROMBONE CHOIR (2-0) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0118 MARCHING PERCUSSION (3-0) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0119 TRUMPET ENSEMBLE (1-0) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0120 FRENCH HORN ENSEMBLE (1-0) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0121 COLOR GUARD (1-0) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0122 JAZZ COMBO (2-0) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0123 VOCAL JAZZ (2-0) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0124 FLUTE CHOIR (1-0) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0125 SAX CHOIR (1-0) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0126 STRING QUARTET (1-0) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0127 TUBA ENSEMBLE (1-0) The music

major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0128 ORCHESTRA (1-0) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0130 SYMPHONIC BAND (1-0) The music major must receive credit for the ensembles required in his/her option. The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

MUSI 0171 ELECTIVE PERFORMANCE (1-0) For students who desire elective private instruction in strings, woodwinds, brass, keyboard, voice, or percussion. May be repeated eight times for credit.

MUSI 0174 SECONDARY KEYBOARD (1-0) For music majors whose degree option requires secondary piano, organ, or harpsichord. A jury is required to receive credit. May be repeated for credit. Prerequisite: MUSI 2181 or faculty approval.

MUSI 0175 SECONDARY VOICE (1-0) For music majors whose degree option requires secondary voice. A jury is required to receive credit. May be repeated for credit.

MUSI 1101 JAZZ LISTENING (1-0) Develop intelligent listening habits with regard to standard small and large jazz ensemble repertoire. Students are exposed to influential recordings by performers such as Miles Davis, John Coltrane, Charlie Parker, etc. Open to all students; required of jazz studies majors. Topics change each semester.

MUSI 1103 HIGH BRASS CLASS (0-2) Open to music majors only. Emphasis on pedagogical techniques for teaching the trumpet and French horn. Lectures and playing opportunities will provide information concerning the teaching of embouchure, tonguing, tonal and technical development to beginning students.

MUSI 1104 WOODWIND CLASS I (0-2) Open to music majors only. Emphasis on pedagogical techniques for teaching the clarinet and flute. Lectures and playing opportunities will provide information concerning the teaching of embouchure, tonguing, tonal and technical development to beginning students.

MUSI 1105 VOICE CLASS (0-2) Open to music majors only. A practical study of the physiology of the voice with emphasis on vocal technique, sound production, the changing voice, and limited repertoire.

MUSI 1106 LOW BRASS CLASS (0-2) Open to music majors only. Emphasis on pedagogical techniques for teaching the trombone and euphonium/tuba. Lectures and playing opportunities will provide information concerning the teaching of embouchure, tonguing, tonal and technical development to beginning students.

MUSI 1107 WOODWIND CLASS II (0-2) Open to music majors only. Emphasis on

pedagogical techniques for teaching the saxophone, oboe and bassoon. Lectures and playing opportunities will provide information concerning the teaching of embouchure, tonguing, tonal and technical development to beginning students.

MUSI 1180 FUNCTIONAL PIANO I (0-2) Required of and limited to music majors who are not piano majors or concentrates. The aim is to develop keyboard skills necessary to use the piano as a tool in teaching, composing, improvising, and performing.

MUSI 1181 FUNCTIONAL PIANO II (0-2) Required of and limited to music majors who are not piano majors or concentrates. The aim is to develop keyboard skills necessary to use the piano as a tool in teaching, composing, improvising, and performing. A continuation of MUSI 1180. Prerequisite: MUSI 1180.

MUSI 1185 SIGHTSINGING AND EAR TRAINING I (0-2) (MUSI 1116). Techniques of melodic and rhythmic sightsinging and procedures of dictation.

MUSI 1186 SIGHTSINGING AND EAR TRAINING II (0-2) A continuation of MUSI 1185 using more difficult materials. Prerequisite: MUSI 1185.

MUSI 1240 PRIVATE LESSONS IN VOICE (1-0) This sequence of courses is required of music majors whose concentration is voice. These courses are open to non-music majors only with written approval of the Music Department chair.

MUSI 1241 PRIVATE LESSONS IN VOICE (0-1) This sequence of courses is required of music majors whose concentration is voice. These courses are open to non-music majors only with written approval of the Music Department chair.

MUSI 1242 PRIVATE LESSONS IN PIANO (1-0) This sequence of courses is required of music majors whose concentration is piano. These courses are open to non-music majors only with the written approval of the Music Department chair.

MUSI 1243 PRIVATE LESSONS IN PIANO (1-0) This sequence of courses is required of music majors whose concentration is piano. These courses are open to non-music majors only with the written approval of the Music Department chair. Prerequisite: MUSI 1242.

MUSI 1244 PRIVATE LESSONS IN STRINGS (1-0) This sequence of courses meets the requirements of music majors whose concentration is strings. These courses are open to non-music majors only with written approval of the Music Department chair.

MUSI 1245 PRIVATE LESSONS IN STRINGS (1-0) This sequence of courses meets the requirements of music majors whose concentration is strings. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 1244.

MUSI 1246 PRIVATE LESSONS IN WOODWINDS (1-0) This sequence of courses is required of music majors whose concentration is woodwinds. These courses are open to non-music majors only with written approval of the Music Department chair.

MUSI 1247 PRIVATE LESSONS IN WOODWINDS (1-0) This sequence of courses is required of music majors whose concentration is woodwinds. These courses are open to non-music majors only with written approval of the Music Department chair.

MUSI 1248 PRIVATE LESSONS IN BRASS (1-0) This sequence of courses is required of music majors whose concentration is brass. These courses are open to non-music majors only with written approval of the Music Department chair.

MUSI 1249 PRIVATE LESSONS IN BRASS (1-0) This sequence of courses is required of music majors whose concentration is brass. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 1248.

MUSI 1250 PRIVATE LESSONS IN PERCUSSION (1-0) This sequence of courses is required of music majors whose concentration is percussion. These courses are open to non-music majors only with written approval of the Music Department chair.

MUSI 1251 PRIVATE LESSONS IN PERCUSSION (1-0) This sequence of courses is required of music majors whose concentration is percussion. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 1250.

MUSI 1252 PRIVATE LESSONS IN JAZZ BASS (2-0) This sequence of courses meets the requirements of jazz studies majors whose concentration is jazz bass. These courses are open to non-music majors only with written approval of the Music Department chair.

MUSI 1253 PRIVATE LESSONS IN JAZZ BASS (2-0) This sequence of courses meets the requirements of jazz studies majors whose concentration is jazz bass. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 1252.

MUSI 1257 PRIVATE LESSONS IN ORGAN (1-0) This sequence of courses is required of music majors whose concentration is organ. These courses are open to non-music majors only with written approval of the Music Department chair.

MUSI 1258 PRIVATE LESSONS IN ORGAN (2-0) This sequence of courses is required of music majors whose concentration is organ. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 1257.

MUSI 1267 PRIVATE LESSONS IN HARPSICHORD (2-0) This sequence is required of music majors whose concentration is harpsichord. These courses are open to non-music majors only with written approval of the music department chair.

MUSI 1268 PRIVATE LESSONS IN HARPSICHORD (2-0) This sequence is required of music majors whose concentration is harpsichord. These courses are open to non-music majors only with written approval of the music department chair. Prerequisite: MUSI 1267.

MUSI 1300 MUSIC APPRECIATION (3-0) Open to all students as fine arts elective, designed to develop intelligent listening and enjoyment of music. Provides an opportunity to increase the student's cultural experience and vocabulary.

MUSI 1301 ELEMENTS OF MUSIC (3-0) Basic musical notation, harmony, and theory for non-music majors as a fine arts elective

MUSI 1302 HISTORY OF JAZZ (3-0) The development of American jazz from its African and European roots to the present. Open to all students of the University as a fine arts elective.

MUSI 1304 HISTORY OF ROCK MUSIC (3-0) Open to all students as fine arts elective. Explores the history and evolution of rock music emphasizing musical style and social context, from rhythm and blues through the present.

MUSI 1325 THEORY AND HARMONY I (3-0) Scales, intervals, triads, and part writing with primary triads. Prerequisite: Open to music majors or faculty approval.

MUSI 1326 THEORY AND HARMONY II (3-0) Part writing including all diatonic triads, seventh chords, and traditional non-chord tones. Prerequisite: MUSI 1325.

MUSI 2101 BRASS SURVEY (1-0) Open to music majors in the All-level Instrumental Option (orchestra emphasis) and All-level Choral Option only. Emphasis on pedagogical techniques for teaching brass instruments. Lectures and playing opportunities will provide information concerning the teaching of embouchure, tonguing, tonal and technical development to beginning students.

MUSI 2102 WOODWIND SURVEY (1-0) Open to music majors in the All-level Instrumental Option (orchestra emphasis) and All-level Choral Option only. Emphasis on pedagogical techniques for teaching woodwind instruments. Lectures and playing opportunities will provide information concerning the teaching of embouchure, tonguing, tonal and technical development to beginning students.

MUSI 2103 STRING CLASS (0-2) Open to music majors only. A practical study of the string instruments of the orchestra with emphasis on bowing techniques, articulation, performance of scales, and limited repertoire.

MUSI 2104 PERCUSSION CLASS (0-2) (MUSI 1188). Open to music majors only. A practical study of the percussion instruments of the band and orchestra with emphasis on rudimental techniques and performance of limited repertoire.

MUSI 2112 INTRODUCTION TO MUSIC PEDAGOGY (1-0) Comprehensive survey of instrumental, choral and elementary music through lecture and research pertaining to professional responsibilities and career opportunities.

MUSI 2180 FUNCTIONAL PIANO III (0-2) Required of and limited to music majors who are not piano majors or concentrates. The aim is to develop keyboard skills necessary to use the piano as a tool in teaching, composing, improvising, and

performing. A continuation of MUSI 1181. Prerequisite: MUSI 1181.

MUSI 2181 FUNCTIONAL PIANO IV (0-2) Required of and limited to music majors who are not piano majors or concentrates. The aim is to develop keyboard skills necessary to use the piano as a tool in teaching, composing, improvising, and performing. A continuation of MUSI 2180. Prerequisite: MUSI 2180.

MUSI 2185 SIGHTSINGING AND EAR TRAINING III (0-2) A continuation of MUSI 1186 using moderately complex melodies and rhythms in more than one part. Prerequisite: MUSI 1186.

MUSI 2186 SIGHTSINGING AND EAR TRAINING IV (0-2) A continuation of MUSI 2185 using complex melodies and dictation in four parts. Prerequisite: MUSI 2185.

MUSI 2222 DEVELOPMENTAL PRIVATE LESSONS (2-0) Continued work in technique and repertoire to meet the requirements of the sophomore barrier.

MUSI 2227 COMPOSITION TECHNIQUES (2-0) Course designed to meet the needs of students desiring to become composers or teachers of composition. Prerequisite: C or better in MUSI 2325.

MUSI 2240 PRIVATE LESSONS IN VOICE (2-0) This sequence of courses is required of music majors whose concentration is voice. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 1241.

MUSI 2241 PRIVATE LESSONS IN VOICE (2-0) This sequence of courses is required of music majors whose concentration is voice. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 2240.

MUSI 2242 PRIVATE LESSONS IN PIANO (2-0) This sequence of courses is required of music majors whose concentration is piano. These courses are open to non-music majors only with the written approval of the Music Department chair. Prerequisite: MUSI 1243.

MUSI 2243 PRIVATE LESSONS IN PIANO (2-0) This sequence of courses is required of music majors whose concentration is piano. These courses are open to non-music majors only with the written approval of the Music Department chair. Prerequisite: MUSI 2242.

MUSI 2244 PRIVATE LESSONS IN STRINGS (2-0) This sequence of courses meets the requirements of music majors whose concentration is strings. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 1245.

MUSI 2245 PRIVATE LESSONS IN STRINGS (2-0) This sequence of courses meets the requirements of music majors whose concentration is strings. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 2244.

MUSI 2246 PRIVATE LESSONS IN WOODWINDS (2-0) This sequence of courses is required of music majors whose concentration is woodwinds. These courses are open to non-music majors only with written approval of the Music Department

chair. Prerequisite: MUSI 1247.

MUSI 2247 PRIVATE LESSONS IN WOODWINDS (2-0) This sequence of courses is required of music majors whose concentration is woodwinds. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 2246.

MUSI 2248 PRIVATE LESSONS IN BRASS (2-0) This sequence of courses is required of music majors whose concentration is brass. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 1249.

MUSI 2249 PRIVATE LESSONS IN BRASS (2-0) This sequence of courses is required of music majors whose concentration is brass. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 2248.

MUSI 2250 PRIVATE LESSONS IN PERCUSSION (2-0) This sequence of courses is required of music majors whose concentration is percussion. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 1251.

MUSI 2251 PRIVATE LESSONS IN PERCUSSION (2-0) This sequence of courses is required of music majors whose concentration is percussion. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 2250.

MUSI 2252 PRIVATE LESSONS IN JAZZ BASS (2-0) This sequence of courses meets the requirements of jazz studies majors whose concentration is jazz bass. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 1253.

MUSI 2253 PRIVATE LESSONS IN JAZZ BASS (2-0) This sequence of courses meets the requirements of jazz studies majors whose concentration is jazz bass. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 2252.

MUSI 2257 PRIVATE LESSONS IN ORGAN (2-0) This sequence of courses is required of music majors whose concentration is organ. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 2252.

MUSI 2258 PRIVATE LESSONS IN ORGAN (2-0) This sequence of courses is required of music majors whose concentration is organ. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 2257.

MUSI 2267 PRIVATE LESSONS IN HARPSICHORD (2-0) This sequence is required of music majors whose concentration is harpsichord. These courses are open to non-music majors only with written approval of the music department chair. Prerequisite: MUSI 1268.

MUSI 2268 PRIVATE LESSONS IN HARPSICHORD (2-0) This sequence is required of music majors whose concentration is harpsichord. These courses are open to non-music majors only with written approval of the music department

chair. Prerequisite: MUSI 2267.

MUSI 2300 MUSICAL TRADITIONS OF THE WORLD (3-0) The music of Asia, Africa, and Oceania and the native traditions of the Americas; the role of music in the world's societies and non-Western music systems. Open to all students as a fine arts or liberal arts elective.

MUSI 2301 MUSIC IN FILM (3-0) A study of the history, compositional styles and impact of music in films during the 20th century. Open to all students as a fine arts or liberal arts elective.

MUSI 2302 MUSIC LITERATURE (3-0) An introduction to music literature of various style periods with an emphasis on reading orchestral scores.

MUSI 2325 THEORY AND HARMONY III (3-0) Modulation, chromatic part writing, and harmonic analysis. Prerequisite: MUSI 1326.

MUSI 2326 THEORY AND HARMONY IV (3-0) Harmonic, linear, and formal analysis of 19th- and 20th-century compositional techniques. Prerequisite: MUSI 2325.

MUSI 3101 ITALIAN AND FRENCH DICTION (0-2) A guide to correct pronunciation of Italian and French in vocal music.

MUSI 3103 VOCAL PEDAGOGY (1-0) A basic survey of the science of voice culture and the skills and knowledge needed to teach healthy, effective vocal production in school and/or private studio. Prerequisite: MUSI 2241.

MUSI 3125 JAZZ THEORY (1-0) Basic musical concepts relating to the jazz idiom such as scales, harmonies, styles, etc. Prerequisite: MUSI 1325 or faculty approval.

MUSI 3127 COMPUTER COMPOSITION I (1-0) Course designed to meet the needs of students desiring to become composers or teachers of composition. Prerequisite: MUSI 1326 and MUSI 3394.

MUSI 3128 COMPUTER COMPOSITION II (1-0) Course designed to meet the needs of students desiring to become composers or teachers of composition. Prerequisite: MUSI 3127.

MUSI 3180 FUNCTIONAL JAZZ PIANO (0-1) Develops basic jazz piano techniques necessary to use the keyboard as a tool in jazz education, composition, and improvisation. Required of all jazz studies majors. Offered fall odd years only. Prerequisite: C or better in MUSI 2181.

MUSI 3191 SECONDARY LESSONS IN STRINGS (1-0) Open only to music majors in the All-Level Instrumental (Orchestra Emphasis) Program. Applied instruction in the fundamentals and techniques specific to string instruments. Taken twice; may not repeat study in any one instrument.

MUSI 3200 MARCHING BAND TECHNIQUES (2-0) Open to music majors only. A detailed study of the theory and history of marching band presentations.

MUSI 3211 EARLY CHILDHOOD MUSIC (2-0) Musical characteristics of children, folksong and composed literature, performance activities, song analysis, and techniques for reading and writing music. Open to music

majors only. Prerequisite: MUSI 2186, MUSI 2326, C or better in MUSI 2112, or by permission of the chair of the department.

MUSI 3212 JAZZ TECHNIQUES (2-0) A study of jazz techniques as they apply to solo and ensemble performance.

MUSI 3213 INSTRUMENTAL MATERIALS AND TECHNIQUES I (2-0) A study of literature, music selection, rehearsal planning, sound production, and performance practices for beginning and intermediate instrumental ensembles. Prerequisite: C or better in MUSI 2112.

MUSI 3214 CHORAL MATERIALS AND TECHNIQUES I (2-0) A study of literature, music selection, rehearsal planning, vocal production, and performance practices for beginning and intermediate choral ensembles. Offered every Fall odd year. Prerequisite: MUSI 2186, 2326, and C or better in MUSI 2112.

MUSI 3225 JAZZ IMPROVISATION I (2-1) The melodic and harmonic foundations of contemporary jazz solo performance. Prerequisite: MUSI 3125 or faculty approval.

MUSI 3226 JAZZ IMPROVISATION II (2-1) A continuation of Jazz Improvisation I. This course explores advanced techniques of contemporary jazz solo performance. Prerequisite: MUSI 3225.

MUSI 3239 APPLIED INSTRUCTION ON A SECONDARY INSTRUMENT (2-0) Open to music majors only. Applied instruction that covers the fundamentals and techniques specific to a secondary instrument.

MUSI 3240 PRIVATE LESSONS IN VOICE (2-0) This sequence of courses is required of music majors whose concentration is voice. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 2241.

MUSI 3241 PRIVATE LESSONS IN VOICE (2-0) This sequence of courses is required of music majors whose concentration is voice. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 3240.

MUSI 3242 PRIVATE LESSONS IN PIANO (2-0) This sequence of courses is required of music majors whose concentration is piano. These courses are open to non-music majors only with the written approval of the Music Department chair. Prerequisite: MUSI 2243.

MUSI 3243 PRIVATE LESSONS IN PIANO (2-0) This sequence of courses is required of music majors whose concentration is piano. These courses are open to non-music majors only with the written approval of the Music Department chair. Prerequisite: MUSI 3242.

MUSI 3244 PRIVATE LESSONS IN STRINGS (2-0) This sequence of courses meets the requirements of music majors whose concentration is strings. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 2245.

MUSI 3245 PRIVATE LESSONS IN STRINGS (2-0) This sequence of courses meets the requirements of music majors whose concentration is strings. These courses are open to non-music majors only with written approval of the Music Department chair.

Prerequisite: MUSI 3244.

MUSI 3246 PRIVATE LESSONS IN WOODWINDS (2-0) This sequence of courses is required of music majors whose concentration is woodwinds. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 2247.

MUSI 3247 PRIVATE LESSONS IN WOODWINDS (2-0) This sequence of courses is required of music majors whose concentration is woodwinds. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 3246.

MUSI 3248 PRIVATE LESSONS IN BRASS (2-0) This sequence of courses is required of music majors whose concentration is brass. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 2249.

MUSI 3249 PRIVATE LESSONS IN BRASS (2-0) This sequence of courses is required of music majors whose concentration is brass. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 3248.

MUSI 3250 PRIVATE LESSONS IN PERCUSSION (2-0) This sequence of courses is required of music majors whose concentration is percussion. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 2251.

MUSI 3251 PRIVATE LESSONS IN PERCUSSION (2-0) This sequence of courses is required of music majors whose concentration is percussion. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 3250.

MUSI 3252 PRIVATE LESSONS IN JAZZ BASS (2-0) This sequence of courses meets the requirements of jazz studies majors whose concentration is jazz bass. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 2253.

MUSI 3253 PRIVATE LESSONS IN JAZZ BASS (2-0) This sequence of courses meets the requirements of jazz studies majors whose concentration is jazz bass. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 3252.

MUSI 3257 PRIVATE LESSONS IN ORGAN (2-0) This sequence of courses is required of music majors whose concentration is organ. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 2258.

MUSI 3258 PRIVATE LESSONS IN ORGAN (2-0) This sequence of courses is required of music majors whose concentration is organ. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 3257.

MUSI 3267 PRIVATE LESSONS IN HARPSICHORD (2-0) This sequence is required of music majors whose concentration is harpsichord. These courses are open to non-music majors only with written approval of the music department

chair. Prerequisite: MUSI 2268.

MUSI 3268 PRIVATE LESSONS IN HARPSICHORD (2-0) This sequence is required of music majors whose concentration is harpsichord. These courses are open to non-music majors only with written approval of the music department chair. Prerequisite: MUSI 3267.

MUSI 3294 APPLIED PEDAGOGY (2-0) A study of teaching techniques as they apply to studio or class instruction in applied music. Specific areas of study will change from semester to semester. May be repeated for credit. Prerequisite: Faculty approval.

MUSI 3295 PIANO PEDAGOGY (2-0) Open to music majors only. Teaching methods of beginning level private and class instruction. Prerequisite: Faculty approval.

MUSI 3300 MUSIC HISTORY I (3-0) The music of western civilization from ancient times to 1750. Prerequisite: MUSI 2326 or faculty approval.

MUSI 3301 MUSIC HISTORY II (3-0) The music of western civilization from 1750 to the present. Prerequisite: MUSI 2326 or faculty approval.

MUSI 3302 FORM AND ANALYSIS (3-0) Structure and analysis of the major forms of music literature. Prerequisite: MUSI 2326 and a passing grade on the Music Theory Barrier.

MUSI 3303 COUNTERPOINT (3-0) Overview of modal counterpoint; detailed study of harmonic counterpoint including canon, invention, and fugue. Prerequisite: MUSI 2326 and a passing grade on the Music Theory Barrier.

MUSI 3305 MUSIC FOR CHILDREN (3-0) A study of musical activities and the role of music in childhood. Includes music fundamentals, folk song literature, and musical characteristics of children. Cannot be counted toward a Bachelor of Music Degree.

MUSI 3308 Instrumental Conducting I (3-0) Open to music majors only. A practical study of basic instrumental conducting and score reading techniques. Prerequisite: MUSI 2186 and MUSI 2326.

MUSI 3309 CHORAL CONDUCTING I (3-0) Open to music majors only. A practical study of the technical and expressive skills required of choral conductors, as well as the development of score study techniques and error detection skills necessary to successfully conduct choral ensembles. Offered every Fall even year. Prerequisite: MUSI 2186 and MUSI 2326.

MUSI 3317 SINGING FOR THE ACTOR (3-0) An applied study of the vocal apparatus, vocal placement, the voice/body relationship, character, working with text, phrasing, and auditioning as they relate to singing in musical theatre for the Broadway or West End theatre. Emphasis is placed on integrating singing and acting skills. Prerequisites: THEA 1307, 2352 and permission of faculty. Same as offering THEA 3317; may not be repeated and credit will only be granted in one department.

MUSI 3326 POST-TONAL ANALYSIS (3-0)

Study of pitch, harmony, rhythm, & form in music from Debussy to the present. Prerequisite: MUSI 2326, passing grade on the theory barrier exam.

MUSI 3350 PRIVATE LESSONS IN VOICE (3-0) Courses meet the requirements of performance majors in voice. Performance of a junior (half) recital is the minimum requirement for completion of MUSI 3351. Prerequisite: MUSI 2241.

MUSI 3351 PRIVATE LESSONS IN VOICE (3-0) Courses meet the requirements of performance majors in voice. Performance of a junior (half) recital is the minimum requirement for completion of MUSI 3351. Prerequisite: MUSI 3350.

MUSI 3352 PRIVATE LESSONS IN PIANO (3-0) Courses meet the requirements of performance majors in piano. Performance of a junior (half) recital is the minimum requirement for completion of MUSI 3353. Prerequisite: MUSI 2243.

MUSI 3353 PRIVATE LESSONS IN PIANO (3-0) Courses meet the requirements of performance majors in piano. Performance of a junior (half) recital is the minimum requirement for completion of MUSI 3353. Prerequisite: MUSI 3352.

MUSI 3354 PRIVATE LESSONS IN STRINGS (3-0) These courses meet the requirements of performance majors in strings. Performance of a junior (half) recital is the minimum requirement for completion of MUSI 3355. Prerequisite: MUSI 2245.

MUSI 3355 PRIVATE LESSONS IN STRINGS (3-0) These courses meet the requirements of performance majors in strings. Performance of a junior (half) recital is the minimum requirement for completion of MUSI 3355. Prerequisite: MUSI 3354.

MUSI 3356 PRIVATE LESSONS IN WOODWINDS (3-0) These courses meet the requirements of performance majors in woodwinds. Performance of a junior (half) recital is the minimum requirement for completion of MUSI 3357. Prerequisite: MUSI 2247.

MUSI 3357 PRIVATE LESSONS IN WOODWINDS (3-0) These courses meet the requirements of performance majors in woodwinds. Performance of a junior (half) recital is the minimum requirement for completion of MUSI 3357. Prerequisite: MUSI 3356.

MUSI 3358 PRIVATE LESSONS IN BRASS (3-0) These courses meet the requirements of performance majors in brass. Performance of a junior (half) recital is the minimum requirement for completion of MUSI 3359. Prerequisite: MUSI 2249.

MUSI 3359 PRIVATE LESSONS IN BRASS (3-0) These courses meet the requirements of performance majors in brass. Performance of a junior (half) recital is the minimum requirement for completion of MUSI 3359. Prerequisite: MUSI 3358.

MUSI 3360 PRIVATE LESSONS IN PERCUSSION (3-0) These courses meet the requirements of performance majors in percussion. Performance of a junior (half) recital is the minimum requirement for completion of MUSI 3361. Prerequisite: MUSI 2251.

MUSI 3361 PRIVATE LESSONS IN PERCUSSION (3-0) These courses meet the requirements of performance majors in percussion. Performance of a junior (half) recital is the minimum requirement for completion of MUSI 3361. Prerequisite: MUSI 3360.

MUSI 3367 PRIVATE LESSONS IN ORGAN (3-0) These courses meet the requirements of performance majors in organ. Performance of a junior (half) recital is the minimum requirement for completion of MUSI 3368. Prerequisite: MUSI 2258.

MUSI 3368 PRIVATE LESSONS IN ORGAN (3-0) These courses meet the requirements of performance majors in organ. Performance of a junior (half) recital is the minimum requirement for completion of MUSI 3368. Prerequisite: MUSI 3367.

MUSI 3377 PRIVATE LESSONS IN HARPSICHORD (3-0) These courses meet the requirements of performance majors in harpsichord. Performance of a junior (half) recital is the minimum requirement for completion of MUSI 3378. Prerequisite: MUSI 2268.

MUSI 3378 PRIVATE LESSONS IN HARPSICHORD (3-0) These courses meet the requirements of performance majors in harpsichord. Performance of a junior (half) recital is the minimum requirement for completion of MUSI 3378. Prerequisite: MUSI 3377.

MUSI 3390 SCHENKERIAN ANALYSIS (3-0) An introduction to the methods of Schenkerian analysis and harmonic reduction. Seminar designed to meet the needs of students desiring to become theorists or teachers of theory. Prerequisite: Theory majors (grades of B or better in MUSI 2186, 2325, and 2326, and a passing grade on the Music Theory barrier exam); all other degree options (grades of C or better in MUSI 2186, 2326, and a passing grade on the Music Theory barrier exam).

MUSI 3391 ADVANCED SONATA THEORY (3-0) An introduction to the methods of Hepokoski and Darcy's Sonata Theory, including intensive writing and analysis assignments. Seminar designed to meet the needs of students desiring to become theorists or teacher of theory. Prerequisite: Grade of C or better MUSI 3390.

MUSI 3392 COMPOSITION I (3-0) Course designed to meet the needs of students desiring to become composers or teachers of composition. Prerequisite: B or better in MUSI 2227, 2325, 2326, and 2186 and a passing grade on the Music Theory barrier exam.

MUSI 3393 COMPOSITION II (3-0) Course designed to meet the needs of students desiring to become composers or teachers of composition. A continuation of MUSI 3392. Prerequisite: MUSI 3392.

MUSI 3394 DIGITAL MUSIC TECHNOLOGY (3-0) An introduction to the computer and to its use in the field of music. Topics include basic computer operation, information-management software, computer-assisted instruction in music, and music notation and sequencing software, MIDI (Musical Instrument Digital Interface).

MUSI 4101 GERMAN AND ENGLISH DICTION (0-2) A guide to correct pronunciation of German and English in vocal music.

MUSI 4128 ADVANCED AUDIO RECORDING (1-0) Further study and practical studio work for students who have successfully completed the required recording techniques sequence utilizing Studio 301 in an independent study format. Prerequisite: MUSI 4326.

MUSI 4191 CONFERENCE COURSE (1-0) Special problems in music. Topic may change from semester to semester. May be repeated for credit. Prerequisite: Consent of the instructor or chair of the department.

MUSI 4205 ADVANCED FUNCTIONAL PIANO (2-0) Concentrated study of keyboard skills which include: sightreading, transposition, harmonization, and open score reading. Prerequisite: MUSI 2181 or faculty approval.

MUSI 4211 ELEMENTARY MUSIC (2-0) Focus on perception as it relates to children's development and participation in music through singing and playing instruments. Prerequisite: MUSI 3211.

MUSI 4213 INSTRUMENTAL MATERIALS AND TECHNIQUES II (2-0) A study of literature, music selection, rehearsal planning, sound production, and performance practices for intermediate and advanced instrumental ensembles. Prerequisite: MUSI 3213 or faculty approval.

MUSI 4214 CHORAL MATERIALS AND TECHNIQUES II (2-0) A study of literature, music selection, rehearsal planning, vocal production, and performance practices for intermediate and advanced choral ensembles. Offered every Spring even year. Prerequisite: MUSI 3214 or faculty approval.

MUSI 4215 ADMINISTRATION IN CHORAL AND INSTRUMENTAL MUSIC (2-0) Open to music education majors only. This course will emphasize administrative organization and management issues that are specific to music educators. Topics include UIL contests, festivals, fundraising, budgeting, booster clubs, public relations, music handbooks, and other pertinent administrative duties. Prerequisite: C or better in MUSI 2112.

MUSI 4216 STRATEGIES AND ASSESSMENT IN MUSIC PEDAGOGY (2-0) Open to music education majors only. Current trends in music education will be examined. Topics include behavior management, learning styles, students with special needs, exceptional students, and examination of major learning theories and principles of cognitive, social, emotional, physical and aesthetic development. This course will also examine a variety of assessment techniques that are used in a music classroom. Assessment tools such as rubrics, rating scales, National Standards, TEKS, TAKS, and TExES will be examined and implemented into lesson planning. Prerequisite: C or better in MUSI 2112.

MUSI 4225 ADVANCED JAZZ IMPROVISATION (2-0) A continuation of Jazz Improvisation II. This course explores advanced techniques of contemporary jazz solo performance. Prerequisite: MUSI 3226.

MUSI 4240 PRIVATE LESSONS IN VOICE (2-0) This sequence of courses is required of

music majors whose concentration is voice. These courses are open to non-music majors only with written approval of the Music Department chair. Performance of a senior (half) recital is required for completion of this course for all students in the concentration Bachelor of Music in Preparation for Teacher Certification. Prerequisite: MUSI 3241.

MUSI 4241 PRIVATE LESSONS IN VOICE
(2-0) This sequence of courses is required of music majors whose concentration is voice. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 4240.

MUSI 4242 PRIVATE LESSONS IN PIANO
(2-0) This sequence of courses is required of music majors whose concentration is piano. These courses are open to non-music majors only with the written approval of the Music Department chair. Performance of a senior (half) recital is required for completion of this course for all students in the concentration Bachelor of Music in Preparation for Teacher Certification. Prerequisite: MUSI 3243.

MUSI 4243 PRIVATE LESSONS IN PIANO
(2-0) This sequence of courses is required of music majors whose concentration is piano. These courses are open to non-music majors only with the written approval of the Music Department chair. Prerequisite: MUSI 4242.

MUSI 4244 PRIVATE LESSONS IN STRINGS
(2-0) This sequence of courses meets the requirements of music majors whose concentration is strings. These courses are open to non-music majors only with written approval of the Music Department chair. Performance of a senior (half) recital is required for completion of this course for all students in the concentration Bachelor of Music in Preparation for Teacher Certification. Prerequisite: MUSI 3245.

MUSI 4245 PRIVATE LESSONS IN STRINGS
(2-0) This sequence of courses meets the requirements of music majors whose concentration is strings. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 4244.

MUSI 4246 PRIVATE LESSONS IN WOODWINDS (2-0) This sequence of courses is required of music majors whose concentration is woodwinds. These courses are open to non-music majors only with written approval of the Music Department chair. Performance of a senior (half) recital is required for completion of this course for all students in the concentration Bachelor of Music in Preparation for Teacher Certification. Prerequisite: MUSI 3247.

MUSI 4247 PRIVATE LESSONS IN WOODWINDS (2-0) This sequence of courses is required of music majors whose concentration is woodwinds. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 4246.

MUSI 4248 PRIVATE LESSONS IN BRASS
(2-0) This sequence of courses is required of music majors whose concentration is brass. These courses are open to non-music majors only with written approval of the Music Department chair. Performance of a senior (half) recital is required for completion of this course for all students in the

concentration Bachelor of Music in Preparation for Teacher Certification. Prerequisite: MUSI 3249.

MUSI 4249 PRIVATE LESSONS IN BRASS (2-0) This sequence of courses is required of music majors whose concentration is brass. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 4248.

MUSI 4250 PRIVATE LESSONS IN PERCUSSION (2-0) This sequence of courses is required of music majors whose concentration is percussion. These courses are open to non-music majors only with written approval of the Music Department chair. Performance of a senior (half) recital is required for completion of this course for all students in the concentration Bachelor of Music in Preparation for Teacher Certification. Prerequisite: MUSI 3251.

MUSI 4251 PRIVATE LESSONS IN PERCUSSION (2-0) This sequence of courses is required of music majors whose concentration is percussion. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 4250.

MUSI 4252 PRIVATE LESSONS IN JAZZ BASS (2-0) This sequence of courses meets the requirements of jazz studies majors whose concentration is jazz bass. These courses are open to non-music majors only with written approval of the Music Department chair. Performance of a senior (half) recital is required for completion of this course for all students in the concentration Bachelor of Music in Preparation for Teacher Certification. Prerequisite: MUSI 3253.

MUSI 4253 PRIVATE LESSONS IN JAZZ BASS (2-0) This sequence of courses meets the requirements of jazz studies majors whose concentration is jazz bass. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 4252.

MUSI 4257 PRIVATE LESSONS IN ORGAN (2-0) This sequence of courses is required of music majors whose concentration is organ. These courses are open to non-music majors only with written approval of the Music Department chair. Performance of a senior (half) recital is required for completion of this course for all students in the concentration Bachelor of Music in Preparation for Teacher Certification. Prerequisite: MUSI 3258.

MUSI 4258 PRIVATE LESSONS IN ORGAN (2-0) This sequence of courses is required of music majors whose concentration is organ. These courses are open to non-music majors only with written approval of the Music Department chair. Prerequisite: MUSI 4257.

MUSI 4267 PRIVATE LESSONS IN HARPSICHORD (2-0) This sequence is required of music majors whose concentration is harpsichord. These courses are open to non-music majors only with written approval of the music department chair. Performance of a senior (half) recital is required for completion of this course for all students in the concentration Bachelor of Music in Preparation for Teacher Certification. Prerequisite: MUSI 3268.

MUSI 4268 PRIVATE LESSONS IN HARPSICHORD (2-0) This sequence is

required of music majors whose concentration is harpsichord. These courses are open to non-music majors only with written approval of the music department chair. Prerequisite: MUSI 4267.

MUSI 4280 SPECIAL TOPICS IN MUSIC (2-0) Special studies in music. Topics will vary from semester to semester. May be repeated for credit when topics vary.

MUSI 4291 CONFERENCE COURSE (2-0) Special problems in music. Topic may change from semester to semester. May be repeated for credit. Prerequisite: Consent of the instructor or chair of the department.

MUSI 4300 JAZZ PERSPECTIVES (3-0) Open to music majors only. An in-depth study of the history, literature, and styles of the jazz idiom.

MUSI 4301 ORCHESTRATION (3-0) Scoring for strings, woodwinds, brass, percussion, and voice as related to orchestra, band, and choir. Prerequisite: MUSI 2186, 2326 and a passing grade on the Music Theory Barrier.

MUSI 4302 JAZZ ARRANGING (3-0) Arranging in the jazz and commercial idioms with emphasis on the large jazz ensemble. Prerequisite: MUSI 3125 and 3225 or consent of the instructor.

MUSI 4303 ADVANCED STRING CLASS (3-0) Open to music majors only. An advanced study of orchestral string instruments with emphasis on advanced technique and pedagogy. Prerequisite: MUSI 3191.

MUSI 4308 INSTRUMENTAL CONDUCTING II (3-0) Open to music majors only. A study of advanced conducting techniques, including score reading, rehearsal techniques, ensemble concepts, articulations and musical style. Prerequisite: MUSI 3308.

MUSI 4309 CHORAL CONDUCTING II (3-0) Open to music majors only. Application of the technical and expressive aspects of choral conducting, score study techniques, error detection skills, and rehearsal planning and implementation techniques in a laboratory-conducting situation. Offered every spring odd year. Prerequisite: MUSI 3309.

MUSI 4323 BUSINESS OF MUSIC (3-0) A study of the structure of the music business and relationships among occupations in the industry. Topics include publishing, copyright licensing, artist management, the record industry, music in film and broadcasting, and career development and planning.

MUSI 4324 HISTORY OF MUSICAL THEATRE (3-0) A historical survey of American theatre music from the colonial period to the present. Open to all students as a fine arts elective.

MUSI 4325 RECORDING TECHNIQUES II (3-0) Students will continue to learn recording engineering through audio analysis, recording practice, and audio theory. Signal processing, analog tape techniques, mastering, and studio business will be discussed. Students will work independently on jazz and pop/rock recording projects in Studio 301. Prerequisite: MUSI 4390.

MUSI 4326 RECORDING TECHNIQUES III

(3-0) This course builds upon the previous two courses by introducing students to more advanced aspects of audio engineering, such as combining MIDI and audio, syncing audio to video, advanced aural skills, and mixing automation. Students will be able to utilize Studio 301 and Irons Hall in order to pursue their recording work in a more independent fashion. Prerequisite: MUSI 4325 (Recording Techniques II).

MUSI 4327 TECHNIQUES AND TECHNOLOGY IN FILM COMPOSITION (3-0) Study in the technical and artistic requirements of film composition and the realization of film scores. Prerequisite: MUSI 2227 and MUSI 3392.

MUSI 4350 20TH CENTURY FORM & TECHNIQUE (3-0) Introduction to twentieth-century form and techniques, as well as relevant analytical methods and compositional strategies. Seminar designed to meet the needs of students desiring to become theorists or teacher of theory. This course formerly MUSI 4490. Prerequisite: Grade of C or better in MUSI 3391.

MUSI 4351 MUSIC THEORY CAPSTONE/SEMINAR (3-0) Seminar designed to meet the needs of students desiring to become theorists or teachers of theory; includes preparation and presentation of a senior research project in music theory in a conference setting. This course formerly 4491. Prerequisite: Grade of C or better in MUSI 4390 (formerly 4490).

MUSI 4390 RECORDING TECHNIQUES I (3-0) Live performance and studio recording techniques. Topics include microphone selection and placement, equalization techniques, overdubbing, console-mixing, sound synchronization, and related recording techniques. Prerequisite: MUSI 3394.

MUSI 4391 CONFERENCE COURSE (3-0) Special problems in music. Topic may change from semester to semester. May be repeated for credit. Prerequisite: Consent of the instructor or chair of the department.

MUSI 4393 CAPSTONE IN MUSIC THEORY (3-0) Senior project in music theory, culminating in a professional presentation on a selected topic in music theory. Prerequisite: MUSI 4490.

MUSI 4394 HONORS THESIS/SENIOR PROJECT (0-0) Required of all students in the University Honors College. During the senior year, the student must complete a thesis or a project under the direction of a faculty member in the major department.

MUSI 4395 INTERNSHIP (3-0) The Internship course is designed to give students practical experience in a variety of music media and music business settings. The student must work with a local business for at least ten hours per week (140 hours total).

MUSI 4450 PRIVATE LESSONS IN VOICE (1-0) These courses meet the requirements of performance majors in voice. Performance of a senior (full) recital is required for completion of MUSI 4451. Prerequisite: MUSI 3351.

MUSI 4451 PRIVATE LESSONS IN VOICE (1-0) These courses meet the requirements of performance majors in voice. Performance of a senior (full) recital is

required for completion of MUSI 4451. Prerequisite: MUSI 4450.

MUSI 4452 PRIVATE LESSONS IN PIANO (1-0) These courses meet the requirements of performance majors in piano. Performance of a senior (full) recital is required for completion of MUSI 4453. Prerequisite: MUSI 3353.

MUSI 4453 PRIVATE LESSONS IN PIANO (1-0) These courses meet the requirements of performance majors in piano. Performance of a senior (full) recital is required for completion of MUSI 4453. Prerequisite: MUSI 4452.

MUSI 4454 PRIVATE LESSONS IN STRINGS (1-0) These courses meet the requirements of performance majors in strings. Performance of a senior (full) recital is required for completion of MUSI 4455. Prerequisite: MUSI 3355.

MUSI 4455 PRIVATE LESSONS IN STRINGS (1-0) These courses meet the requirements of performance majors in strings. Performance of a senior (full) recital is required for completion of MUSI 4455. Prerequisite: MUSI 4454.

MUSI 4456 PRIVATE LESSONS IN WOODWINDS (1-0) These courses meet the requirements of performance majors in woodwinds. Performance of a senior (full) recital is required for completion of MUSI 4457. Prerequisite: MUSI 3357.

MUSI 4457 PRIVATE LESSONS IN WOODWINDS (1-0) These courses meet the requirements of performance majors in woodwinds. Performance of a senior (full) recital is required for completion of MUSI 4457. Prerequisite: MUSI 4456.

MUSI 4458 PRIVATE LESSONS IN BRASS (1-0) These courses meet the requirements of performance majors in brass. Performance of a senior (full) recital is required for completion of MUSI 4459. Prerequisite: MUSI 3359.

MUSI 4459 PRIVATE LESSONS IN BRASS (1-0) These courses meet the requirements of performance majors in brass. Performance of a senior (full) recital is required for completion of MUSI 4459. Prerequisite: MUSI 4458.

MUSI 4460 PRIVATE LESSONS IN PERCUSSION (1-0) These courses meet the requirements of performance majors in percussion. Performance of a senior (full) recital is required for completion of MUSI 4461. Prerequisite: MUSI 3361.

MUSI 4461 PRIVATE LESSONS IN PERCUSSION (1-0) These courses meet the requirements of performance majors in percussion. Performance of a senior (full) recital is required for completion of MUSI 4461. Prerequisite: MUSI 4460.

MUSI 4467 PRIVATE LESSONS IN ORGAN (1-0) These courses meet the requirements of performance majors in organ. Performance of a senior (full) recital is required for completion of MUSI 4468. Prerequisite: MUSI 3368.

MUSI 4468 PRIVATE LESSONS IN ORGAN (1-0) These courses meet the requirements of performance majors in organ. Performance of a senior (full) recital is

required for completion of MUSI 4468. Prerequisite: MUSI 4467.

MUSI 4477 PRIVATE LESSONS IN HARPSICHORD (1-0) This course meets the requirements of performance majors in harpsichord. Performance of a senior (full) recital is required for completion of MUSI 4478. Prerequisite: MUSI 3378.

MUSI 4478 PRIVATE LESSONS IN HARPSICHORD (1-0) These courses meet the requirements of performance majors in harpsichord. Performance of a senior (full) recital is required for completion of MUSI 4478. Prerequisite: MUSI 4477.

MUSI 4492 COMPOSITION III (4-0) Individual instruction designed to meet the needs of students desiring to become composers or teachers of composition. A continuation of MUSI 3393. Prerequisite: MUSI 3393.

MUSI 4493 COMPOSITION IV (4-0) Individual instruction designed to meet the needs of students desiring to become composers or teachers of composition. A continuation of MUSI 4492. Prerequisite: MUSI 4492.

NE 3301 INTRODUCTION TO NUCLEAR ENGINEERING (3-2) Fundamentals of radiation, radiation decay, binding energy, types of interactions, shielding, and radioisotopes, fission cross section, fission in a reactor, controlling fission chains, basic reactor model, reactor theory, reactor generations I, II, III, IV, review heat transfer terms, reactor coolant, Loss-Of-Coolant Accidents, reactor accidents, safety, emergency planning zone, nuclear fuel and fuel cycle, waste storage, decontamination and decommissioning, fusion power, regulating nuclear reactors, nuclear power economics and environment. Prerequisite: PHYS 1444; MATH 3319 or MAE 3360.

NE 4302 NUCLEAR REACTOR THEORY/ANALYSIS (3-2) The neutronics behavior of fission reactors, primarily from a theoretical, one-speed perspective. Criticality, fission product poisoning, reactivity control, reactor stability and introductory concepts in fuel management, followed by slowing down and one-speed diffusion theory. Multi-group diffusion theory, finite-difference and nodal methods, core heterogeneous effects, pin power reconstruction, thermal neutron spectra, fine group whole spectrum calculations and coarse group constant generation. Prerequisite: NE 3301.

NE 4303 REACTOR THERMAL HYDRAULICS (3-0) Thermal hydraulic processes involved in the transfer of power from the reactor core to the secondary systems of nuclear power plants. Major topics include an overview of nuclear heat generation, fluid dynamics with respect to the flow in reactor channels, steady state radial and axial temperature distribution, thermal analysis of fuel elements and subchannel flow, Hot channel factors, two-phase flow dynamics. Prerequisite: NE 3301; MAE 3314 or MAE 3309.

NE 4391 SPECIAL TOPICS IN NUCLEAR ENGINEERING (3-0) Special topics in the field of nuclear engineering. Topic may vary from semester to semester. May be repeated for credit when topic changes. Departmental approval required in advance to use for degree credit. Prerequisite: NE 3301 or consent of instructor.

NURS 1123 INTRODUCTION TO NURSING (1-0) Designed to introduce the freshman level prenursing student to the language of nursing, the critical thinking process, and the interpersonal skills required for success in nursing school and the nursing profession.

NURS 1124 SERVICE LEARNING IN NURSING (1-0) Strategies will be taught to enable students to plan, execute, and evaluate a service learning project under the guidance of nursing faculty. Activities will include reflection journal and a group reflection activity and 10 hours of service learning.

NURS 1335 INTRODUCTION TO PROFESSIONAL NURSING (3-0) Designed to introduce and transition the freshman and transfer pre-nursing student to the language of nursing, critical thinking, the essential academic skills for incoming students and the interpersonal skills required for success in nursing school and the nursing profession. Selected concepts and processes for professional nursing will be included in the course, including an introduction to nursingÿs theoretical, philosophical, ethical and legal dimensions.

NURS 2240 CONCEPTS OF PROFESSIONAL NURSING (2-0) Selected concepts and processes for professional nursing. Introduction to nursing's theoretical, philosophical, ethical, and legal dimensions. Socialization into nursing roles. Prerequisite: Student must be classified as a sophomore or above.

NURS 3100 COOPERATIVE NURSING WORK EXPERIENCE (0-0) Designed for nursing cooperative education students to integrate classroom study with career-related practical experience in the workplace. May be repeated for credit. Prerequisite: consent of instructor.

NURS 3137 INDEPENDENT STUDY (1-3) Topic and mode of study are agreed upon by the student and instructor. May be repeated with various topics.

NURS 3147 SPECIALIZED TOPICS IN NURSING (1-0) Areas of special interest. May be repeated with varied topics. Prerequisite: junior standing or consent of instructor.

NURS 3150 NURSING LEARNING SKILLS (1-0) A one semester course designed to enhance skills needed for success in the BSN program. Emphasis will be on identifying individual strengths and weaknesses, learning styles, problem solving, critical thinking, test taking skills, stress management, time management, computer skills and writing and math skills specific to nursing. Prerequisite: acceptance into junior level nursing courses.

NURS 3200 COOPERATIVE NURSING WORK EXPERIENCE (0-0) Designed for nursing cooperative education students to integrate classroom study with career-related practical experience in the workplace. May be repeated for credit. Prerequisite: consent of instructor.

NURS 3237 INDEPENDENT STUDY (2-6) Topic and mode of study are agreed upon by the student and instructor. May be repeated with various topics.

NURS 3247 SPECIALIZED TOPICS IN

NURSING (2-0) Areas of special interest. May be repeated with varied topics. Prerequisite: junior standing or consent of instructor.

NURS 3261 NURSING OF OLDER ADULTS (2-0) Selected concepts and issues related to aging and its impact on society and health care. Introduction to gerontologic nursing principles. Clinical application in diverse settings across the continuum of care. Prerequisite: NURS 3632 or concurrent enrollment. Department approval.

NURS 3300 COOPERATIVE NURSING WORK EXPERIENCE (3-0) Designed for nursing cooperative education students to integrate classroom study with career-related practical experience in the workplace. May be repeated for credit.

NURS 3320 HOLISTIC HEALTH ASSESSMENT ACROSS THE LIFESPAN (2-3) Theory and practice of holistic health assessment of individuals and families across the life span with emphasis on normal findings. Prerequisite: NURS 3333 (or concurrent enrollment).

NURS 3321 NURSING RESEARCH (3-0) Basic concepts, processes and applications of nursing research. Research role of the nurse in decision making and clinical practice. Prerequisite: NURS 3532; Prerequisite or Corequisite: NURS 3561.

NURS 3325 RN-BSN HOLISTIC CARE OF THE OLDER ADULT (3-0) Introduction to gerontologic nursing principles and standards. Selected concepts and issues related to aging and its impact on society and health care. RN-BSN students only. Previously listed as NURS 3322. Prerequisite or Corequisite: NURS 3645.

NURS 3333 HEALTH PROMOTION ACROSS THE LIFESPAN (3-0) Focus on health promotion and disease prevention strategies that can reduce morbidity and mortality, promote healthy lifestyles and empower individuals and aggregates to become informed health care consumers. Prerequisite: Acceptance into the nursing program.

NURS 3335 RN-BSN HEALTH PROMOTION ACROSS THE LIFESPAN (3-0) Health promotion for individuals and families. Opportunities to gain knowledge about primary prevention in health care. Importance of the role of the nurse in disease prevention and health promotion. RN-BSN students only. Previously NURS 3435. Prerequisite or Corequisite: NURS 3645.

NURS 3337 INDEPENDENT STUDY (3-9) Topic and mode of study are agreed upon by the student and instructor. May be repeated with various topics.

NURS 3344 ENHANCING NURSING PRACTICE AND SAFETY WITH HISPANIC PATIENTS THROUGH BETTER COMMUNICATION (3-0) Explores and augments the understanding of factors which facilitate or inhibit effective communication with Spanish-speaking clients. Focus on vocabulary specific to assessment and intervention with persons whose primary language is Spanish.

NURS 3347 SPECIALIZED TOPICS IN NURSING (3-0) Areas of special interest.

May be repeated with varied topics. Prerequisite: junior standing or consent of instructor.

NURS 3352 THE LEGACY OF THE FAMILY (3-0) Explore and enhance understanding and application of the principles of family science knowledge in therapeutic relationships with families across the lifespan. Prerequisite (for those taking the course online): Computer Technology Skills continuing education course or permission of instructor. *

NURS 3353 NURSING ASSESSMENT AND INTERVENTIONS FOR THE VIOLENT FAMILY (3-0) Explores the dynamics of family violence as to etiologies, assessments and interventions for both survivors and perpetrators of violence. An interdisciplinary approach is followed. Prerequisite: lower division psychology course.

NURS 3355 HEALTH CARE SYSTEMS (3-0) Focus is on a national and international comparison of health care systems with consideration of social, economic, and delivery structures. Emphasis is on U.S. health care delivery systems and roles of the advanced practice nurse. Prerequisite: Computer Technology Skills continuing education course for distance learning, or permission of the instructor.

NURS 3356 NURSING CARE AT THE END OF LIFE (3-0) An overview of the nursing care of the terminally ill patient and family. Explores the impact of personal values and beliefs about death on nursing care, the physiology of end stage disease processes, clinical approaches to pain and symptom management, societal issues and trends in end of life care and models of care delivery. Prerequisite: BSN students must complete all required Junior II courses, or Registered Nurse students.

NURS 3357 GENETICS AND NURSING (3-0) An overview of genetics principles and their application to health care, the genetic impact on health care, and the nursing implications of this health care revolution.

NURS 3363 ETHICAL ISSUES IN CONTEMPORARY HEALTH CARE (3-0) Examines philosophic foundations of ethical decision making in contemporary health care. Methods of moral reasoning based upon traditional ethical frameworks will be applied to selected ethical issues. Prerequisite: NURS 3421, 3561, 3581, or Registered Nurs students. *

NURS 3365 PHARMACOLOGY IN NURSING PRACTICE (3-0) Introduction to current concepts of pharmacology and their relationship to nursing practice. Included are basic principles of drug actions, side effects for major drug classifications, and the role of the nurse in drug therapeutics. Prerequisite: BIOL 2457, 2458, CHEM 1451.

NURS 3366 PATHOPHYSIOLOGIC PROCESSES: IMPLICATIONS FOR NURSING (3-0) Pathophysiologic alterations, their interactions, and effects on persons across the life span as a basis for therapeutic nursing interventions. Prerequisite: BIOL 2457, 2458, CHEM 1451.

NURS 3425 RN-BSN HOLISTIC HEALTH ASSESSMENT ACROSS THE LIFESPAN (4-0) Theory and practice of holistic health

assessment of individuals and families across the life span designed for the registered nurse. RN-BSN students only. Prerequisite or Corequisite: NURS 3645.

NURS 3437 INDEPENDENT STUDY (4-0) Topic and mode of study are agreed upon by the student and instructor. May be repeated with various topics.

NURS 3447 SPECIALIZED TOPICS IN NURSING (4-0) Areas of special interest. May be repeated with varied topics. Prerequisite: junior standing or consent of instructor.

NURS 3481 PSYCHIATRIC MENTAL HEALTH NURSING OF INDIVIDUALS, FAMILIES, AND GROUPS (2-6) Application of the nursing process with emphasis on critical thinking, therapeutic nursing interventions, and effective communication and interpersonal skills as they relate to persons with psychiatric mental health conditions. Prerequisite: NURS 3632.

NURS 3537 INDEPENDENT STUDY (5-0) Topic and mode of study are agreed upon by the student and instructor. May be repeated with various topics.

NURS 3547 SPECIALIZED TOPICS IN NURSING (5-0) Areas of special interest. May be repeated with varied topics. Prerequisite: junior standing or consent of instructor.

NURS 3561 NURSING OF ADULTS (3-6) Application of the nursing process with emphasis on critical thinking, therapeutic nursing interventions, and effective communication for persons experiencing medical-surgical problems. Theory and clinical application in diverse settings. Prerequisite: NURS 3632.

NURS 3632 CLINICAL NURSING FOUNDATIONS (3-9) Basic therapeutic nursing interventions with individuals and families in diverse settings using nursing process framework. Required to receive 90 percent or above (three opportunities) on medication competency test. Prerequisite or Corequisite: NURS 3320, 3333.

NURS 3637 INDEPENDENT STUDY (6-0) Topic and mode of study are agreed upon by the student and instructor. May be offered with any combination of lecture/lab hours. May be repeated with various topics.

NURS 3645 RN-BSN PROFESSIONAL NURSING (6-0) Introduction to concepts, values and behaviors necessary for transitioning to professional nursing role. Encompasses ethical, legal, legislative and political processes that impact the practice of professional nursing in contemporary health care. Strategies for personal and professional empowerment are identified. RN to BSN students only. Prerequisites: Acceptance into RN to BSN program. (This course replaces two previously offered courses, NURS 3442 and NURS 4324).

NURS 3647 SPECIALIZED TOPICS IN NURSING (6-0) Areas of special interest. May be repeated with varied topics. Prerequisite: junior standing or consent of instructor.

NURS 3677 RN FIRST ASSISTANT (3-9) Focuses on the delivery of care to surgical patients in all aspects of the surgical

experience: preoperative, intraoperative, and postoperative. Meets the requirements for RNs to assume the role of a registered nurse first assistant (RNFA). Registered Nurse students. Prerequisite: permission of instructor. CNOR or CNOR Eligible. (CNOR Eligible requires proof of eligibility to take the CNOR exam from the Competency and Credentialing Institution.)

NURS 4100 COOPERATIVE NURSING WORK EXPERIENCE (0-0) Designed for nursing cooperative education students to integrate classroom study with career-related practical experience in the workplace. May be repeated for credit. Prerequisite: consent of instructor.

NURS 4200 COOPERATIVE NURSING WORK EXPERIENCE (0-0) Designed for nursing cooperative education students to integrate classroom study with career-related practical experience in the workplace. May be repeated for credit. Prerequisite: consent of instructor.

NURS 4223 PROFESSIONAL NURSING TRENDS (2-0) Analysis of societal issues and trends influencing health care. Application of ethical, legal, economic, and political concepts. Identification of strategies for personal and professional empowerment. Prerequisite: NURS 4431, 4441, and 4581.

NURS 4261 NURSING OF OLDER ADULTS (2-0) Selected concepts and issues related to aging and its impact on society and health care. Introduction to gerontologic nursing principles. Clinical application in diverse settings across the continuum of care. Prerequisite: NURS 4581.

NURS 4300 COOPERATIVE NURSING WORK EXPERIENCE (3-0) Designed for nursing cooperative education student to integrate classroom study with career-related practical experience in the workplace. May be repeated for credit.

NURS 4307 US ARMY ROTC NURSE SUMMER TRAINING PROGRAM (3-0) A voluntary, paid three-week clinical elective for nurse cadets. The primary focus is to provide nurse cadets with at least 120 hours of clinical experience utilizing military, leadership, clinical nursing, administrative and interpersonal skills working side-by-side with an Army Nurse Corps officer preceptor. Prerequisite: 3 years of ROTC, NURS 3561.

NURS 4309 FORENSICS FOR NURSING (3-0) Explore the emerging field of forensic nursing, including the nurse's role in data collection, documentation, recognition of perpetrators, participation in the court system, and prevention of future violence. Prerequisite for RN - BSN: NURS 3442; Prerequisite for BSN: NURS 3561, NURS 3581.

NURS 4325 RN-BSN NURSING RESEARCH (3-0) Basic concepts, processes and applications of nursing research. Research role of the nurse in decision making and clinical practice. RN-BSN students only. Prerequisite: NURS 3645. (Previously offered as NURS 4321.)

NURS 4350 CAPSTONE: Transition to Professional Nursing (0-9) Focus on the synthesis of knowledge acquired throughout the curriculum and the enactment of the professional nurse role in a concentrated practicum. Prerequisite or Corequisite:

NURS 4223, 4261, 4351, and 4462.

NURS 4351 BSN NURSING LEADERSHIP AND MANAGEMENT (2-3) Exploration of organizational strategies, leadership theories and societal trends with implications for decision making in health care. Introduction to management skills needed by professional nurses with clinical application in diverse settings. Prerequisites: NURS 4431, 4441, 4581.

NURS 4360 CULTURAL VARIATION IN HEALTH CARE: A COMPARATIVE ANALYSIS OF TWO CULTURES (1-6) The purpose of this course is to further develop an awareness, understanding and appreciation of the cultural factors that underlie a person's way of living. This course will increase the practitioner's ability to make in-depth assessments of the cultural influences upon the individual's health care status and will develop the ability to deliver culturally sensitive, safe and effective care. Through the study of one specific cultural group, the Mexican culture. Students will gain knowledge, skills and principles that will enable them to generalize to other cultural groups.

NURS 4393 NURSING CERTIFICATION (3-0)

NURS 4431 NURSING OF CHILDREN AND ADOLESCENTS (2-6) Nursing care for infants, children, adolescents, and their families. Theory and clinical application in diverse settings. Prerequisite: NURS 3561, 3581.

NURS 4441 NURSING OF THE CHILDBEARING FAMILY (2-6) Application of the nursing process with emphasis on critical thinking, communication and therapeutic nursing interventions as related to care of individuals and families during the childbearing experience. Prerequisite: NURS 3581 and 3561.

NURS 4455 RN-BSN NURSING LEADERSHIP & MANAGEMENT (4-0) Exploration of organizational strategies, leadership theories and societal trends with implications for decision making in health care. Introduction to management skills needed by professional nurses with clinical application in diverse settings. RN-BSN students only. Prerequisite or Corequisite: NURS 3645.

NURS 4462 COMMUNITY HEALTH NURSING (2-6) Integrate knowledge from nursing theory and public health science in assessing health care needs of aggregates, communities, and society. Prerequisite: NURS 4431, 4441, 4581.

NURS 4465 RN-BSN Care of Vulnerable Populations Across the Lifespan (4-0) Integrates knowledge from nursing theory and public health science in assessing health care needs of aggregates, communities, and society for the Registered Nurse. RN-BSN students only. Prerequisite: NURS 3335, 3645.

NURS 4581 NURSING OF ADULTS WITH COMPLEX NEEDS (3-6) Use of critical thinking, therapeutic nursing interventions and communication skills in promoting quality of life for persons with complex health needs. Application of nursing roles in diverse settings. Prerequisite: NURS 3561, 3581.

NURS 4585 RN-BSN CAPSTONE SEMINAR (5-0) Synthesis of theories and concepts for professional nursing practice. Focuses on evolution and transition of professional nursing practice in diverse settings within a context of emerging societal issues and trends. Student will select one of three areas (management, clinical or education) of interest for concentrated study. RN-BSN students only. Prerequisite or Corequisite: NURS 4325, 4455, 4465.

NURS 4641 PERINATAL NURSING (4-6) Enhances foundations of nursing concepts learned in NURS 4541. Focuses on skills, issues and care required for childbearing families in the antepartum, intrapartum, and postpartum or neonatal intensive care settings. Contains both theoretical and clinical components with emphasis on development of clinical and critical thinking skills. Prerequisite: NURS 4441.

NURS 4655 CULTURAL VARIATION IN HEALTH CARE: COMPARATIVE ANALYSIS OF TWO CULTURES (6-0) A comparative analysis of two cultures and the influences of cultural beliefs and practices upon the delivery of health care. Includes field study in a foreign country. Prerequisite: Completion of Junior I required nursing courses or consent of instructor.

OPMA 3306 OPERATIONS MANAGEMENT (3-0) Introduction to concepts and problem-solving techniques important in operations management and production management. Topics include demand forecasting, capacity management, resource allocation, inventory management, supply chain management, quality control, project management. Corequisite: BUSA/STAT 3321.

OPMA 3308 OPERATIONS PLANNING AND CONTROL (3-0) 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, operations planning and control software. Prerequisite: OPMA 3306.

OPMA 3310 PROJECT MANAGEMENT (3-0) 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. Corequisite: OPMA 3306.

OPMA 4191 STUDIES IN OPERATIONS MANAGEMENT (1-0) Advanced studies, on an individual basis, in the various fields of operations management. Prerequisite: 90 credit hours and permission of instructor. May be repeated for credit with consent of department chair.

OPMA 4291 STUDIES IN OPERATIONS MANAGEMENT (2-0) Advanced studies, on an individual basis, in the various fields of operations management. Prerequisite: 90 credit hours and permission of instructor. May be repeated for credit with consent of department chair.

OPMA 4301 COMPUTER MODELS IN OPERATIONS MANAGEMENT (3-0) Course covers applications of computer models used in operations management. Prerequisite: OPMA 3306.

OPMA 4302 LOGISTICS MANAGEMENT (3-0) Physical supply, in-plant movement and storage, and physical distribution which comprise logistics systems in industry. Topics include facility location, transportation, warehousing, inventory control, distribution networks, and logistics information systems. Prerequisite: OPMA 3306.

OPMA 4307 QUALITY PLANNING AND ANALYSIS (3-0) Quality of products and services needed by society, to include consideration of quality costs and improvements, designing for quality, process controls, inspections, testing, acceptance sampling, management controls, and quality information systems. Prerequisite: OPMA 3306 and BUSA/STAT 3321.

OPMA 4309 GLOBAL SUPPLY CHAIN MANAGEMENT (3-0) 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. Prerequisite: OPMA 3306.

OPMA 4331 SEMINAR IN OPERATIONS MANAGEMENT (3-0) Readings and discussion of special topics in operations management. Prerequisite: Junior or senior standing and consent of instructor. May be repeated for credit with consent of department chair.

OPMA 4391 STUDIES IN OPERATIONS MANAGEMENT (3-0) Advanced studies, on an individual basis, in the various fields of operations management. Prerequisite: 90 credit hours and permission of instruction. May be repeated for credit with consent of department chair.

OPMA 4393 OPERATIONS MANAGEMENT INTERNSHIP (3-0) Practical training in operations management. Analysis of theory applied to real life situations. May be used as an advanced business elective only; graded on a pass/fail basis. No credit will be given for previous experience or activities. May not be repeated for credit. Prerequisite: Junior standing and consent of department internship advisor.

PHED 0113 PHYS EDUC (0-0)

PHIL 1301 CRITICAL THINKING (3-0) (PHIL 2303). The analysis of arguments and rhetorical forms. Deals with common forms of valid and fallacious reasoning and includes exercises and drill in practical reasoning.

PHIL 1304 CONTEMPORARY MORAL PROBLEMS (3-0) (PHIL 2306). Examination of ethical problems and theories which have a bearing on contemporary life. Texts may include both classical and contemporary ethical writings and deal with problems such as the conditions under which life may be taken (abortion, capital punishment, medical ethics), business ethics, social justice, and individual rights.

PHIL 1310 PHILOSOPHICAL PERSPECTIVES (3-0) Approaches philosophy through a broad application of philosophical perspectives to humanistic disciplines, including history, literature, and the arts.

Recommended for students satisfying the social/cultural core requirement.

PHIL 2300 INTRODUCTION TO PHILOSOPHY (3-0) (PHIL 1301). An examination of one or more basic problems of lasting interest to philosophers. Typical problems may include human nature and limits of knowledge. Formerly listed as 1300. Credit cannot be received for both 1300 and 2300.

PHIL 2311 LOGIC (3-0) The development of formal and symbolic systems for the analysis of arguments. The scope of the course will be basically modern logic: truth-functional analysis, propositional calculus, and some predicate calculus.

PHIL 2312 ETHICS (3-0) An inquiry into the basic principles of the moral life through a critical examination of traditional and current theories of value, right and wrong, good and evil, happiness, duty, and freedom.

PHIL 2313 PHILOSOPHY OF THE ARTS (3-0) Problems in the philosophy of art and art criticism; the history of aesthetic theory.

PHIL 3301 HISTORY OF PHILOSOPHY: ANCIENT PHILOSOPHY (3-0) The beginning and the early developments of the western philosophic tradition. Ancient Greek philosophy, basically the Pre-Socratics, Socrates, Plato and Aristotle.

PHIL 3302 HISTORY OF PHILOSOPHY: ROMAN AND MEDIEVAL PHILOSOPHY (3-0) Post-Aristotelians (e.g., the later Stoics, the Epicureans, Neo-Platonists); philosophy of the early Church Fathers through Aquinas and later Scholastics.

PHIL 3303 HISTORY OF PHILOSOPHY: RENAISSANCE AND EARLY MODERN EUROPEAN PHILOSOPHY (3-0) The philosophical views of Galileo, Newton, Bacon, and Hobbes, the Continental Rationalists and British Empiricists, and a brief introduction to the philosophy of Immanuel Kant.

PHIL 3304 HISTORY OF PHILOSOPHY: NINETEENTH AND EARLY TWENTIETH CENTURY PHILOSOPHY (3-0) Major philosophers from Kant to the early 20th century.

PHIL 3307 SEMINAR IN RESEARCH METHODS AND PHILOSOPHICAL WRITING (3-0) Examination of philosophical methodology; philosophical analysis, philosophical writing, discipline-specific bibliographic tools, etc. Students write a series of short papers on topics of interest.

PHIL 3316 PHILOSOPHY OF RELIGION (3-0) Problems that engage philosophy of religion (e.g., the existence of God, theodicy, religious language) and the way these problems have been treated by some outstanding Western thinkers.

PHIL 3317 INTERMEDIATE LOGIC (3-0) Begins with predicate calculus and includes such topics as soundness and completeness theorems, definite descriptions, identity, modal logic, and others. Prerequisite: PHIL 2311.

PHIL 3318 THE PHILOSOPHY OF SCIENCE AND TECHNOLOGY (3-0) The method and goals of scientific scholars and inquiry. The

distinction between formal and empirical sciences, laws and theories, measurement, the role of observation and experiment, and probability. Formerly listed as 4315. Credit cannot be received for both 4315 and 3318.

PHIL 3319 BIOMEDICAL ETHICS (3-0) Major ethical problems which arise in modern medicine and in medical/biological research (euthanasia, abortion, patient-physician relations, allocations of medical resources, genetic research, etc.).

PHIL 3320 PHILOSOPHY OF LAW (3-0) Examination of the institution of law, legal concepts, legal reasoning, and the legal process. Topics may include the nature of law; the moral limits of the criminal law; legal rights; liberty, justice, and equality; punishment; responsibility; the private law (property, contract, and tort); constitutional law; and feminist jurisprudence.

PHIL 3321 PHILOSOPHY OF LANGUAGE (3-0) Topics to be investigated include the nature of language and communication; the distinction between natural and artificial language; the traditional division of the field into syntax, semantics, and pragmatics; and such specialized subtopics as meaning, reference, truth, and speech acts. Completion of PHIL 2311 is recommended, but not required.

PHIL 3324 BUSINESS ETHICS (3-0) Selected ethical issues in business, such as the nature and moral status of capitalism; corporate moral agency and responsibility; issues and challenges in the workplace (e.g., civil liberties, personnel policies, unionization, privacy, and safety); moral choices facing employees (e.g., loyalty, insider trading, and whistleblowing); job discrimination (e.g., affirmative action, comparable worth, and sexual harassment); consumer protection; environmental protection; and globalization.

PHIL 3330 SOCIAL AND POLITICAL PHILOSOPHY (3-0) Investigation of the basis (if any) of political obligation. Analysis of social and political concepts, such as equality, liberty, rights, and justice. Discussion of social and political theories, such as anarchism, contractarianism, Marxism, and conservatism.

PHIL 3340 TOPICS IN APPLIED ETHICS (3-0) Investigation of a single moral issue or a cluster of issues that arise in the context of a particular profession. Examples of the former are abortion, punishment, freedom of speech, the environment, and the moral status of animals. Examples of the latter are business ethics, legal ethics, engineering ethics, nursing ethics, and computer ethics. May be repeated for credit as content changes.

PHIL 3390 HONORS COLLOQUIUM (3-0) An interdisciplinary course designed to meet the needs of advanced undergraduates in the Honors College.

PHIL 4191 UNDERGRADUATE CONFERENCE COURSE (1-0) Topics assigned on an individual basis covering research of individual students or study in designated areas. May be repeated for credit.

PHIL 4291 UNDERGRADUATE CONFERENCE COURSE (2-0) Topics assigned on an individual basis covering research of

individual students or study in designated areas. May be repeated for credit.

PHIL 4318 PHILOSOPHY AND LITERATURE (3-0) The role of ideas in literature and an analysis of the actual contacts between philosophy and the dominant world views of the great writers of literature.

PHIL 4380 PHENOMENOLOGY (3-0) Phenomenology is a major philosophical movement based on the methodically controlled and objectively validated description of human experience, as uncovered at first introspectively. This course focuses on (1) the origin of the movement in common problems stemming from the devaluation of the subjective point of view brought on by positivistic and scientistic views in philosophy and the sciences, (2) the development of the movement's method, and (3) a close study of some influential phenomenologists.

PHIL 4381 THEORIES OF INTERPRETATION (3-0) Philosophical hermeneuticsÿthe theory or study of interpretationÿdates back at least to Aristotle and grew in the 20th century from a focus on texts to an analysis of the interpretation of every human act and idea. This course traces the history of the problems of interpretation from Aristotle to the present.

PHIL 4385 THEORY OF KNOWLEDGE (3-0) Problems which arise from attempts to give an account of human knowledge. Skepticism, perception, induction, or the nature of truth. Note: Although there are no prerequisites for this course, students who have had no previous philosophy courses may find the material difficult.

PHIL 4386 METAPHYSICS (3-0) Problems which arise from attempts to give an account of reality and its manifestations. Possibility and necessity, causality, the nature of events, mind-body, and universals. Note: Although there are no prerequisites for this course, students who have had no previous philosophy courses may find the material difficult.

PHIL 4387 TOPICS IN VALUE THEORY (3-0) In-depth treatment of an issue or topic within value theory, which is broadly construed to include moral philosophy (and its subfields, such as moral epistemology and moral psychology), social philosophy, political philosophy, philosophy of law, aesthetics, philosophy of religion, and feminist philosophy. May be repeated for credit with permission of the department.

PHIL 4388 TOPICS IN THE HISTORY OF PHILOSOPHY (3-0) In-depth treatment of a single important philosophical writer, a related group of writers, or an extended tradition. May be repeated for credit with permission of the department.

PHIL 4389 TOPICS IN PHILOSOPHY AND THE SOCIAL SCIENCES (3-0) In-depth treatment of one or more of the social sciences from a philosophical perspective: may include the philosophy of history, social philosophy, political philosophy, philosophy of the social sciences, or any specific subject therein. Credit may not be granted for 4311 or 4317 (no longer offered) and 4389. May be repeated for credit with permission of the department.

PHIL 4391 UNDERGRADUATE CONFERENCE

COURSE (0-0) Topics assigned on an individual basis covering research of individual students or study in designated areas. May be repeated for credit.

PHIL 4394 SENIOR THESIS (3-0) During the senior year, the student completes a thesis under the direction of a faculty member in the major department. Required of all pre-professional track philosophy majors and of all philosophy majors who are members of the University Honors College.

PHYS 1188 SPECIAL PROBLEMS IN GENERAL PHYSICS (1-0) Primarily laboratory work and/or problem-solving in general technical physics. The objective is to prepare the student whose background in physics is of a non-technical nature to do advanced study in technical physics. Prerequisite: six hours of physics and concurrent enrollment in MATH 1325.

PHYS 1288 SPECIAL PROBLEMS IN GENERAL PHYSICS (0-0) Primarily laboratory work and/or problem-solving in general technical physics. The objective is to prepare the student whose background in physics is of a non-technical nature to do advanced study in technical physics. Prerequisite: six hours of physics and concurrent enrollment in MATH 1325.

PHYS 1313 MECH & HEAT (0-0)

PHYS 1400 INTRODUCTION TO MUSICAL ACOUSTICS (3-3) An introduction, for the music major, to the nature of periodic motion and its relation to music, characteristics of sound waves, sources of sound used in music, musical scales and temperament, mechanics of hearing, recording and reproduction of sound. May not be used to satisfy any of the requirements for the Bachelor of Science degree in physics.

PHYS 1401 PHYSICS FOR NON-SPECIALISTS I (3-2) PHYS 1401 and 1402 constitute a one-year introductory course for liberal arts and business majors. How physics plays a role in everyday life; explanations of how things work. Helps develop analytical thinking. The first semester explains motion and forces and heat.

PHYS 1402 PHYSICS FOR NON-SPECIALISTS II (3-2) Follows PHYS 1401 and explains sound, light, electricity, and magnetism. Prerequisite: PHYS 1401 or permission of instructor.

PHYS 1441 GENERAL COLLEGE PHYSICS I (3-3) The first half of a one-year, non-calculus introductory physics course taken by pre-medical, pre-dental, biology and architectural majors and others. The study of mechanics, elasticity, fluids, heat and waves is supplemented by laboratory experiments. Familiarity with high school algebra and trigonometry is required.

PHYS 1442 GENERAL COLLEGE PHYSICS II (3-3) The second half of a one-year, non-calculus introductory physics course. Subject matter includes electricity and magnetism, light and optics, and modern physics. Prerequisite: PHYS 1441 or equivalent, or permission of instructor.

PHYS 1443 GENERAL TECHNICAL PHYSICS I (3-3) The first half of a one-year technical course. Required for many science and engineering majors, exceeds premedical

requirement. The study of physical phenomena in the fields of mechanics, heat, and waves. Concurrent enrollment in MATH 1426 (per prerequisite) is not recommended if no prior background in calculus. Prerequisite: MATH 1426 or consent of instructor.

PHYS 1444 GENERAL TECHNICAL PHYSICS II (3-3) The second half of a one-year technical course. The study of physical phenomena including electricity, magnetism, circuit theory, light, and optics. Prerequisite: PHYS 1443 and MATH 2325 or 2425 or concurrent enrollment.

PHYS 1445 INTRODUCTORY ASTRONOMY I (3-2) PHYS 1445 and 1446 constitute a one-year sequence for any student who is interested in learning his/her place within the astronomical universe. These two courses satisfy eight hours of the 11-hour science requirement in the core curriculum and are designed for students in the Colleges of Liberal Arts or Business Administration. The first semester consists of an essentially descriptive treatment of the apparent motions and properties of members of the solar system including the sun, the planets and their moons, comets and rockets, and satellites as well as the mechanics and evolution of the solar system. The laboratory work includes the use of astronomical telescopes for observation.

PHYS 1446 INTRODUCTORY ASTRONOMY II (3-2) Follows PHYS 1445 and focuses on the science of stars and galaxies. Properties of light are applied to the understanding and classification of stars and to determining their distances. Topics include nuclear reactions, binary stars, variable stars, exploding stars, black holes, and star clusters. The course concludes with the structure of the Milky Way and the role galaxies play in modern cosmological theories. The laboratory work includes telescopic observations.

PHYS 2311 MATHEMATICAL METHODS OF PHYSICS (3-0) Harmonic oscillators, waves, vector description of particles and fields, coordinate transformations, eigenvalue problems, and systems of linear equations. Prerequisite: MATH 2325 or 2425 and PHYS 1288 or 1444.

PHYS 2315 INTRODUCTORY ASTROPHYSICS (3-0) This course introduces Science and Engineering majors to astrophysics. Subject matter includes the solar system, stellar properties and evolution, the Milky Way galaxy, normal and active galaxies, and cosmology. Prerequisite: PHYS 1444 or permission of the instructor.

PHYS 2321 COMPUTATIONAL PHYSICS (3-0) Development of computational techniques, including simulation, through applications to physical problems. A survey of topics including the multi-body problem, celestial mechanics, scattering, chaos, percolation, fractals, random processes, Fourier techniques in wave phenomena, Monte Carlo methods, and image reconstruction techniques. Prerequisite: PHYS 1444.

PHYS 2441 MAGN&ELEC (0-0)

PHYS 2442 SO LT&MOD PHYS (0-0)

PHYS 3183 MODERN PHYSICS LABORATORY (0-3) Supplements the topics covered in PHYS 3313. Prerequisite: PHYS 3313 or concurrent enrollment.

PHYS 3313 INTRODUCTION TO MODERN PHYSICS (3-0) A brief introduction to the theories of quantum mechanics and statistical mechanics followed by a survey of atomic physics, conductors, semiconductors and modern electronic devices, nuclear and sub-nuclear physics. Prerequisite: PHYS 1288 or 1444, and MATH 2325 or 2425.

PHYS 3315 ASTROPHYSICS AND COSMOLOGY (3-0) Diverse concepts in theoretical physics are applied to a wide range of astrophysical problems. Topics include stellar properties, spectra, and evolution, radiation transport, nuclear reactions, degenerate matter, orbital mechanics, galactic dynamics, introductory general relativity and cosmology. Prerequisite: PHYS 2315, 3313 and MATH 3318 or 3319, or permission by the instructor.

PHYS 3316 ASTROBIOLOGY (3-0) This is an interdisciplinary course between astrophysics, biology, and geology. Topics include properties of life, origin and evolution of life on Earth, mass extinctions, extremophiles, search for life in the Solar System, space missions, stellar habitable zones, SETI, Fermi paradox, Drake equation. Prerequisites: PHYS 1441, 1442, 2315 and BIOL 3315, or permission by the instructor. Offered as BIOL 3316, GEOL 3316, and PHYS 3316; credit will be granted only once.

PHYS 3321 INTERMEDIATE ELECTRICITY AND MAGNETISM (3-0) Vector algebra and vector calculus applied to electrostatics, magnetostatics, the study of dielectric materials, and boundary value problems. Prerequisite: PHYS 2311 and MATH 3318 or 3319.

PHYS 3366 SPECIAL TOPICS IN PRE-COLLEGE PHYSICAL SCIENCE INSTRUCTION (1-6) A laboratory oriented curriculum for teaching physical science and/or physics is developed and experienced. The developed curriculum is particularly appropriate for pre-college instruction. May be repeated for credit as the subject matter changes, but not more than six hours credit may be accumulated. Prerequisite: junior standing, six hours of science, three hours of education, and consent of the instructor.

PHYS 3445 OPTICS (3-3) Fundamental principles of physical and geometric optics, absorption and scattering, Planck's quantum theory of radiation, diffraction, interference, light sources, and spectra. Prerequisite: PHYS 1288 or 1444, and MATH 2325 or 2425.

PHYS 3446 NUCLEAR AND PARTICLE PHYSICS (3-3) The study of atomic nuclei and the fundamental constituents of matter. Topics include nuclear structure, radioactivity, nuclear reactions, fission, fusion, particles and their interactions, the standard model of particle physics, experimental methods, accelerators, and examples from current research topics. Prerequisite: PHYS 3313.

PHYS 3455 ELECTRONICS (3-3) A study of

electronic components and quantum devices and their application to circuits and instrumentation of interest to physics students. Prerequisite: PHYS 3313 and MATH 2325 or 2425 or permission of the instructor.

PHYS 4117 INDIVIDUAL LEARNING BY SEMINAR (0-0) Individual instruction on using the seminar as a model of learning current topics in physics. An individual report is required. Prerequisite: 18 hours of physics and senior standing.

PHYS 4171 ADVANCED OPTICS LABORATORY (0-3) Special laboratory projects in advanced optics. Prerequisite: PHYS 3445 or permission of the instructor.

PHYS 4181 SPECIAL PROBLEMS (0-0) Selected projects in research or teaching laboratories, which may be repeated in any order for a total credit not to exceed four hours, unless authorized by the undergraduate advisor. Prerequisite: permission of the instructor and the undergraduate advisor.

PHYS 4185 ADVANCED ELECTRICITY AND MAGNETISM LABORATORY (0-3) Supplements the topics covered in PHYS 3321 and 4324. Prerequisite: PHYS 4324 or concurrent enrollment.

PHYS 4191 SPECIAL TOPICS IN PHYSICS (1-0) Selected topics arranged on an individual basis, which may be repeated in any order for a total credit not to exceed three hours, unless authorized by the undergraduate advisor. Prerequisite: permission of the instructor and the undergraduate advisor.

PHYS 4271 ADVANCED OPTICS LAB (0-6) Special laboratory projects in advanced optics. Prerequisite: PHYS 3445 or permission of the instructor.

PHYS 4281 SPECIAL PROBLEMS (0-0) Selected projects in research or teaching laboratories, which may be repeated in any order for a total credit not to exceed four hours, unless authorized by the undergraduate advisor. Prerequisite: permission of the instructor and the undergraduate advisor.

PHYS 4291 SPECIAL TOPICS (2-0) Selected topics arranged on an individual basis, which may be repeated in any order for a total credit not to exceed three hours, unless authorized by the undergraduate advisor. Prerequisite: permission of the instructor and the undergraduate advisor.

PHYS 4315 THERMODYNAMICS AND STATISTICAL MECHANICS (3-0) Topics in classical thermodynamics include the laws of thermodynamics, Gibbs' and Helmoltz's free energies, the Maxwell relations, heat capacities, entropy change calculations, phase and chemical changes. Statistical mechanics centers on the partition function and its applications, such as the entropy of an ideal gas, the Maxwell velocity distribution, the heat capacity of a solid, photon statistics, and blackbody radiation. Fermi-Dirac and Bose-Einstein statistics. Prerequisite: PHYS 3313 and MATH 2326 or permission of the instructor.

PHYS 4319 ADVANCED MECHANICS (3-0) Coupled oscillators, central forces, Lagrange's equations, Hamilton's canonical

equations, the moment of inertia tensor, and the application of Euler's angles to rotational motion. Prerequisite: PHYS 2311, 3321, and MATH 3318 or 3319, or permission of the instructor.

PHYS 4324 ADVANCED ELECTRICITY AND MAGNETISM (3-0) Electromagnetic phenomena based on Maxwell's equations and particle-field interactions. Prerequisite: PHYS 3321 or permission of the instructor.

PHYS 4325 SOLID STATE PHYSICS (3-0) Classification of crystalline solids and elastic and thermal properties, electric and magnetic properties, and electronic properties of solids. An introduction to current research problems. Prerequisite: PHYS 4315 or permission of the instructor.

PHYS 4326 INTRODUCTION TO QUANTUM MECHANICS (3-0) Schroedinger's equation and implications, the free particle, the one-electron atom, the potential barrier, and perturbation theory. Prerequisite: PHYS 3313, MATH 3318 or 3319, or permission of the instructor.

PHYS 4391 SPECIAL TOPICS (3-0) Selected topics arranged on an individual basis, which may be repeated in any order for a total credit not to exceed three hours, unless authorized by the undergraduate advisor. Prerequisite: permission of the instructor and the undergraduate advisor.

PHYS 4393 HONORS THESIS IN PHYSICS (3-0) Required of all students in the University Honors College. During the senior year the honors physics major will perform a research project under the direction of a Physics Department faculty member.

POLS 2311 GOVERNMENT OF THE UNITED STATES (3-0) (GOVT 2305). The constitution and government of the United States. The organization, procedures, and duties of the branches of the government, together with their accomplishments and defects.

POLS 2312 STATE AND LOCAL GOVERNMENT (3-0) (GOVT 2306). The principles and organization of American state, county, and municipal government, together with current problems and the constitution and government of Texas.

POLS 3303 INTRODUCTION TO PUBLIC ADMINISTRATION (3-0) The scope and development of public administrative organizations; both the traditional and behavioral approaches to the treatment of administrative principles, decision making, and organizational environment.

POLS 3304 INTRODUCTION TO COMPARATIVE POLITICS (3-0) Cross-national and cross-cultural comparisons of political systems. Institutional structure, political process, dynamics of change, and ideology.

POLS 3305 GOVERNMENT IN URBAN AMERICA (3-0) Problems associated with the growth, diversity, and complexity of urban areas and governmental solutions. Urban regimes, neighborhood governments, electoral politics, and intergovernmental relations. Useful for students interested in urban management.

POLS 3306 LEGISLATIVE ORGANIZATION AND PROCEDURE (3-0) Internal and

external influences on the U.S. Congress: rules, norms, committees, seniority, political parties, presidents, media, constituents and interest groups.

POLS 3307 COMPARATIVE STATE AND LOCAL POLITICS (3-0) Comparison of state and local political institutions and policy choices in the United States. Useful for students interested in state and local government policy innovations.

POLS 3308 POLITICS OF A TEXAS CITY: ARLINGTON CITY POLITICS (3-0) Describes the political processes over a period of fifty years from the immediate post-World War II years to the present. The outlines of Arlington city government, its structure, the changes, and personalities that have shaped it and held power. This course does not satisfy area distribution requirements.

POLS 3310 RESEARCH METHODS AND POLITICAL ANALYSIS (3-0) How to study politics scientifically, through proper research design, quantitative and qualitative methods. Students are familiarized with a statistical package to analyze political data, which will fulfill the computer competency requirement.

POLS 3311 PUBLIC OPINION (3-0) Measurement of attitudes, public opinion and ideology, the learning and influencing of public opinion, and expression of public opinion in elections and mass political movements. The logic and practice of survey research.

POLS 3312 INTRODUCTION TO PUBLIC POLICY ANALYSIS (3-0) The American policymaking process from issue creation to program administration and evaluation. Policy models and methods of policy analysis. Oriented toward providing students with skills as a professional policy analyst.

POLS 3313 MODERN CRITICS OF SOCIETY AND POLITICS (3-0) Designed for both political science and other majors. Focus on writers like Banfield, Galbraith, Marcuse, Reich, Revel, Skinner, and Toffler.

POLS 3314 POLITICAL SYSTEMS OF EASTERN AND CENTRAL EUROPE (3-0) POLS 3314 or RUSS 3314. Examination of the political institutions and processes of the former communist systems of Eastern Europe and the Baltics, as well as selected Central European states. Credit will be given in only one department. Students receiving credit in Russian will complete projects using the Russian language.

POLS 3315 VIOLENCE & REPRESSION IN THE AMERICAS (3-0) Examination of extra-legal behavior in the Americas (particularly Latin America). Topics include human rights violations, repression, insurrection, terrorism, and revolution. Analysis of different causes and outcomes of such political participation. Prerequisite: POLS 2311 and POLS 2312.

POLS 3316 DICTATORSHIP AND DEMOCRACY IN LATIN AMERICAN POLITICS (3-0) The political development of Latin American nations and various explanations for trends and differences in Latin American politics. Strategies of development; Latin America's relationship with the United States; and contemporary events in Latin America.

POLS 3317 MEXICAN POLITICS AND U.S.-MEXICO RELATIONS (3-0) Current economic and political systems of Mexico and relevant issues in U.S.-Mexico relations. Trade, immigration, economic dependency, energy, contraband, and other topics. Offered as MAS 3317 and POLS 3317; credit will be given in only one department.

POLS 3318 POLITICAL SYSTEMS OF EAST ASIA (3-0) The political institutions and dynamics in the political systems of East Asia including China and Japan.

POLS 3327 AMERICAN POLITICAL PARTIES (3-0) The development and characteristics of the American political party system, including systematic goals, formal organizations, membership recruitment, ideological and issue orientations, electoral and participatory functions, and linkages in the political system.

POLS 3328 INTRODUCTION TO MIDDLE EAST POLITICS (3-0) The historical developments that have led to the current political, social, economic, and security order of the Middle East, as well as the contemporary challenges facing the region and its inhabitants. Prerequisites: POLS 2311 and 2312.

POLS 3329 THE POLITICS OF INTERNATIONAL CONFLICT (3-0) The impact of factors such as national security and political ideologies on international conflict and the role of international organizations in maintaining world peace.

POLS 3330 JUDICIAL BEHAVIOR AND THE JUDICIAL PROCESS (3-0) Decision making, role perception, recruitment and socialization of judges, and the relationship between attitudes and values of justices and their decisions. The judicial process and how courts relate to the larger political system and society. Especially recommended for pre-law majors.

POLS 3331 CONTEMPORARY ISSUES IN CIVIL LIBERTIES (3-0) The status and function of civil liberties in modern America emphasizing problem areas of Equal Employment Opportunity, invasion of privacy by government, obscenity and pornography, and corporate and industrial assaults on civil liberties.

POLS 3333 JURISPRUDENCE (3-0) An empirical and normative examination of the nature of law, legal reasoning, and modern legal systems, particularly in the U.S. Other topics: the origins of American legal concepts as they have evolved from earlier legal systems in the Western world and a comparative treatment of legal systems in the world today. Especially recommended for pre-law majors.

POLS 3334 WOMEN AND U.S. LAW (3-0) An exploration of the status and rights of women under the law in the United States. Examines the changing nature of sex discrimination through Supreme Court cases, federal legislation and other primary source material. Analyzes the impact of the Supreme Court on national policy making in areas such as employment, education, privacy and the family.

POLS 3335 CRIMINAL LAW (3-0) The substantive legal provisions of criminal justice; major crimes prohibited by our

legal system with stress upon social values. Texas and Anglo-American criminal laws treated and contrasted.

POLS 3336 STATE JUDICIAL INSTITUTIONS & JURISPRUDENCE (3-0) An examination of state judicial institutions emphasizing the role of processes in determining judicial behavior and the composition of state courts. Examines the role of law and courts, judicial system structures, and judicial policy-making in state government.

POLS 3390 HONORS COLLOQUIUM (3-0) An interdisciplinary course designed to meet the needs of advanced undergraduates in the honors program.

POLS 4101 MOOT COURT (1-0) An understanding of legal debate from the perspective of student competitions, discussions of legal doctrines, and legal research methods. Statewide competitions required. This course does not satisfy area distribution requirements. May be repeated for total of 3 hours credit.

POLS 4102 POLITICAL SCIENCE SERVICE LEARNING (1-0) Students will engage in service learning placements to supplement political science course work with the goal of civic education and community involvement. Placements will be coordinated with the Center for Community Service Learning and students will be required to fulfill not only placement hours, but also additional reflection in writing in consultation with the faculty advisor. This course does not satisfy area distribution requirements.

POLS 4300 POLITICS IN FILM (3-0) Use of film and video in the presentation of political ideas, opinions, and facts. Techniques, subject matter, and alternative forms of presentation. This course does not satisfy area distribution requirements.

POLS 4303 PUBLIC ADMINISTRATION AND THE POLITICAL PROCESS (3-0) The relationships of public administration at all levels with democratic institutions, including its interactions in the formulation and execution of public policies with the chief executive, the legislative and judicial branches, political parties, clientele groups, and the public at large.

POLS 4313 POLITICAL DEVELOPMENT (3-0) The concept of political development, political values, structures, issues, and patterns of political processes in the pre-industrial, industrial, and post-industrial political communities.

POLS 4314 SEPARATION OF POWERS AND AMERICAN INSTITUTIONS (3-0) Theories behind institutional design and development of the executive, legislative, and judicial branches in the United States. Emphasis is placed on interactions of these units of government.

POLS 4316 WOMEN IN THE POLITICAL PROCESS (3-0) This course introduces students to the unique experiences of women in the political process, the impact of these experiences on the political system, and theories of gender and politics. Offered as POLS 4316 and WOMS 4316; credit will be granted only once.

POLS 4317 ETHNIC GROUP POLITICS IN

THE UNITED STATES (3-0) The influence of selected major ethnic groups with special attention given to organizational development, participation in political parties, leadership, ideology, immigration policy, current issues, and relations with the dominant culture and other ethnic groups.

POLS 4318 POLITICS OF AFRICAN AMERICANS (3-0) The influence of African-American politics on United States government and policies with special attention given to organizational development, participation in political parties, leadership, ideology, the Civil Rights movement, current issues, and relations with other ethnic groups.

POLS 4319 POLITICS OF MEXICAN AMERICANS (3-0) The influence of Mexican-American politics on United States government and policies with special attention given to organizational development, participation in political parties, leadership, ideology, the Chicano Movement, current issues, and relations with other ethnic groups. Offered as MAS 4319 and POLS 4319; credit will be given in only one department.

POLS 4322 ISSUES IN POLITICAL THEORY (3-0) Each time this course is offered it will focus on one particular issue central to the study of political theory for example, authority, justice, citizenship, methodology of the social sciences. May be repeated for credit when content varies.

POLS 4323 FEMINIST POLITICAL THOUGHT (3-0) Issues raised by the feminist critique of political theory; the exclusion of women from the political sphere until the 20th century; Marxist, liberal, and radical feminist political thought; alternative feminist conceptions of the political. Offered as POLS 4323 and WOMS 4323; credit will be granted only once..

POLS 4324 ELECTORAL BEHAVIOR (3-0) Major theories of candidate strategy and voter choice, including rational behavior and empirical democratic theory. Introduction to voting behavior analysis in contemporary elections.

POLS 4326 ELECTION STRATEGY AND CAMPAIGN MANAGEMENT (3-0) Strategies relating to elections and various aspects of managing campaigns, including the techniques of demographic survey, voting behavior analysis, opinion survey, issue research, and candidate research.

POLS 4327 POLITICAL IDEAS OF THE ANCIENT WORLD (3-0) Principal theorists and schools of political thought prior to 1500, with emphasis upon those making significant contributions to the political heritage of Western Europe.

POLS 4328 MODERN POLITICAL IDEAS (3-0) The development of political thought from Machiavelli to Marx. Emphasis on the Renaissance, Classical Liberalism, French Radicalism and Marxism.

POLS 4329 CONTEMPORARY CONTROVERSIES IN POLITICAL THEORY (3-0) Examination of twentieth-century approaches to political thought and central controversies in the field. Topics may include: liberal, conservative, and socialist theories; critical theory;

communitarianism; postmodernism; feminism; and identity politics.

POLS 4330 THE U.S. PRESIDENCY (3-0) The U.S. Presidency, including sources of power, changes in the office over time, and the relationship between the individual and the institution.

POLS 4331 U.S. CONSTITUTIONAL LAW: GOVERNMENT POWER (3-0) U.S. Supreme Court decisions regarding the structure of government in the United States. Focus on Congress, the President, Federalism, and the relation of the judicial process to these topics. Recommended for pre-law majors.

POLS 4332 U.S. CONSTITUTIONAL LAW: FUNDAMENTAL RIGHTS (3-0) U.S. Supreme Court decision making involving the Bill of Rights and other fundamental rights. Especially recommended for pre-law majors.

POLS 4333 PRESIDENTIAL LEADERSHIP IN DOMESTIC POLICY MAKING (3-0) Explores the policy process from the perspective of the U.S. president, examining the president's influence through the policy stages. Prerequisite: POLS 2311 and POLS 2312.

POLS 4334 PRESIDENTIAL LEADERSHIP IN FOREIGN POLICY (3-0) The roles, powers, and expectations of the presidency in crafting and implementing foreign policy. By analyzing how presidents utilize the tools of foreign policy available to them, an understanding of broader social and political forces shaping the formulation and implementation of foreign policy is gained. Prerequisite: POLS 2311, POLS 2312.

POLS 4335 LEADERSHIP IN AMERICAN (U.S.) POLITICAL DEVELOPMENT (3-0) This course critically examines the tension between democracy and leadership in the development of American (U.S.) politics. By analyzing the role of political leaders in American political development, an understanding of the dynamics that drive change in American politics is gained. Prerequisite: POLS 2311 and POLS 2312.

POLS 4336 CONTEMPORARY UNITED STATES FOREIGN POLICY (3-0) Theories and analytical structure for understanding United States foreign policy. Policy examined from theoretical, structural, regional, and topical perspectives.

POLS 4351 ENERGY POLICY AND ADMINISTRATION (3-0) Basic issues underlying the politics, economics, and administration of energy policy within the United States. Emerging energy sources, such as solar and geothermal.

POLS 4352 U.S. IMMIGRATION POLICY AND THE AMERICAN DREAM (3-0) Focus on American identity through the examination of immigration to the United States, past and present, and the evolution of U.S. immigration policy. Topics include U.S. attitudes and policy responses to European, Asian, and Latin American immigration and to the incorporation of the descendants of African slaves and Native Americans. Emphasis on the decline of the melting pot idea and the incorporation of recent immigrants. Offered as MAS 4352 and POLS 4352. Credit will be granted only once.

POLS 4353 PUBLIC BUDGETING AND

TAXATION (3-0) The concepts, processes, and policy impacts of taxation and public budgeting. Individual, group, and institutional roles in taxes and budgeting are emphasized. Introduction to current research techniques in political economy.

POLS 4354 THE POLITICS OF REFORM POLICY (3-0) Current and past efforts to change the way American government functions. Sources of reform, consequences of reform, and case studies of current reforms.

POLS 4355 INTERNATIONAL POLITICS (3-0) The background, principles, practices, risks, and problems of international relations and politics in the world composed of nation-states; international conflicts, their bases, and mechanisms for their solution.

POLS 4360 THEORIES OF THE INTERNATIONAL SYSTEM (3-0) Major theories and approaches to the international system. Traditionalist, behavioralist, and post-behavioralist theories rather than institutional, legal, or topical considerations.

POLS 4361 THE POLITICAL ENVIRONMENT OF RUSSIA AND THE SUCCESSOR STATES (3-0) The domestic political systems of Russia and the other former Soviet republics. The communist state in retrospect. Development of political actors, institutions, and parties. Offered as POLS 4361 and RUSS 4361; credit will be given in only one department. Taught in English; for Russian language credit, research will be done in Russian.

POLS 4362 RUSSIA AND THE SUCCESSOR STATES TODAY (3-0) The metamorphosis of the Communist Party and the current political philosophies of the post-Soviet states. Examination of attitudes and self-perceptions of citizens of these states in the post-period. Emphasis is on area studies and culture. The course will be taught in English, but for Russian language credit; research will be done in the Russian language. May be repeated for credit as topics change. Offered as HIST 4362, POLS 4362, & RUSS 4362. Credit will be granted in only one department.

POLS 4365 FOREIGN POLICIES OF RUSSIA AND THE SUCCESSOR STATES (3-0) The foreign policies of Russia and other former Soviet republics. Development of their policymaking structures and the major issues confronting them. Emphasis on Russia and the superpower relationship, European security and cooperation, relations with developing states, and the interactions of the former Soviet republics. Also listed as RUSS 4365; credit will be given in only one department.

POLS 4370 INTERNATIONAL RELATIONS OF THE MIDDLE EAST (3-0) This course will focus on the international interactions among actors in the Middle East. Topics to be covered include: theoretical and conceptual approaches to understanding regional politics; main conflicts in the region; contemporary challenges and issues; and a survey examination of the foreign policies of select countries.

POLS 4371 THE POLITICS AND FOREIGN POLICY OF ISRAEL (3-0) This course will examine the domestic politics and foreign

policies of Israel. The course will be divided into two sections. The first section will focus on the domestic institutions and politics of Israel, while the second section will focus on Israelÿs foreign policies and the impact of domestic politics on them. Topics to be covered include: the rise of Zionism; the pre-state period in Palestine; efforts at state-building and institutional development; domestic politics (including institutions, parties, electoral system); divisions in Israeli society; and determinants and examples of foreign policy. Prerequisite: POLS 2311 and 2312.

POLS 4389 BEYOND CONGRESS AND THE WHITE HOUSE (3-0) An examination of power in Washington, focusing on what lies outside the Executive and Legislative branches. Students visit and study significant institutions and monuments in the city as windows into complex political and social issues. Enrollment is restricted to designated Archer Fellows.

POLS 4390 POLICYMAKING IN WASHINGTON (3-0) An analysis of the central role of Congress in shaping public policy. Emphasis on real-world policymaking. Students play the role of legislative assistants to members of Congress and produce analyses of the public policy issues. Enrollment is restricted to designated Archer Fellows. Prerequisite: POLS 2311 and 2312.

POLS 4392 SPECIAL TOPICS IN POLITICAL SCIENCE (3-0) May be repeated for credit as topics change.

POLS 4393 PREPARING FOR CAREERS IN POLITICAL SCIENCE (3-0) Supervised employment in a government or government-related organization with the student performing duties related to the academic curricula of political science. Students are required to submit a term paper, case study, or an approved academic project related to the work performed. Work is generally graded pass/fail. A maximum of six semester hours of credit in Political Science Internship may be used to satisfy a political science elective requirement for graduation. Students must be classified as juniors or seniors, be political science majors or minors, and have a minimum 3.0 GPA in their major and overall. Majors must have completed 21 hours of political science; minors must have completed 12 hours of political science. Contact the Department for a complete description of requirements. Departmental consent required before enrollment.

POLS 4394 HONORS THESIS/SENIOR PROJECT (0-0) Required of all students in the University Honors College. During the senior year, the student must complete a thesis or a project under the direction of a faculty member in the major department.

POLS 4395 CONFERENCE COURSE READINGS IN POLITICAL SCIENCE (3-0) Designed for the advanced undergraduate student who is capable of independent study. An in-depth examination of one area of political science not necessarily covered in regular course work. May be repeated for credit when the subject matter varies, but only with permission of the department . Only two such courses will be counted on a student's degree plan. Prerequisites: permission of the undergraduate advisor; appropriate previous coursework; written

consent of the instructor. Students must be Political Science majors or minors, have a minimum of 60 credit hours/junior status, have a 3.0 grade point average, and have completed at least 9 hours of Political Science.

POLS 4691 ARCHER PROGRAM INTERNSHIP (6-0) One-semester work experience in Washington, DC carried out during the studentÿs tenure of an Archer Fellowship. The internship is custom-designed with the assistance of the director of the Archer Program based on the studentÿs academic and professional goals. Enrollment is restricted to designated Archer Fellows. Prerequisite: POLS 2311 and 2312.

PORT 1441 BEGINNING PORTUGUESE I (3-2) Multimedia immersion in the culture and language of Portuguese-speaking countries. Designed to enable students to understand and communicate effectively in Portuguese at the beginning level. No prerequisites.

PORT 1442 BEGINNING PORTUGUESE II (3-2) Continuation of beginning Portuguese. Prerequisite: PORT 1441 with a grade of C or better.

PORT 2313 INTERMEDIATE PORTUGUESE I (3-0) Continued immersion in the culture and language of Portuguese -speaking countries. Application of strategies and technology in mastering listening, speaking, reading, and writing at the intermediate level. Prerequisite: PORT 1442 with a grade of C or better.

PORT 2314 INTERMEDIATE PORTUGUESE II (3-0) Continuation of intermediate Portuguese. Prerequisite: PORT 2313 with a grade of C or better.

PORT 3391 CONFERENCE COURSE (3-0) Independent study; consultation with instructor on a regular basis. May be repeated for credit. Prerequisite: consent of the department.

PREL 2338 INTRODUCTION TO PUBLIC RELATIONS (3-0) Principles and methods of building goodwill and obtaining publicity; process of influencing public opinion; analysis of media; implementation of public relations programs.

PREL 3339 PUBLIC RELATIONS METHODS (2-2) The theory and practice of selecting the appropriate mass media channels to reach and influence specialized groups, with practice in public relations writing. Prerequisite: PREL 2338 with a grade of C or higher (2.0/4.0 scale), JOUR 2346, 60 or more hours earned, PREL math requirement (six hours to include MATH 1308, Elementary Statistical Analysis, with a grade of C or higher (2.0/4.0 scale), and three hours of college algebra or higher).

PREL 3355 PUBLIC RELATIONS CASE STUDIES (3-0) The use of case studies to study the techniques of goal-setting and strategy-selection as applied in actual programs and under varying information conditions. Prerequisite: PREL 2338 with a grade of C or higher (2.0/4.0 scale), JOUR 2346, 60 or more hours earned and PREL math requirement [six hours to include MATH 1308, Elementary Statistical Analysis, with a course grade of C or higher (2.0/4.0 scale), and three hours of college algebra or higher].

PREL 4316 PUBLIC RELATIONS CAMPAIGNS (3-0) The study of advanced public relations campaign strategies based on research techniques; campaign development, implementation and assessment. Prerequisite: PREL 3339, 3355, COMM 2315, 3303, and MARK 3321 or FMRK 3350, and completion or concurrent enrollment in PREL 4320.

PREL 4320 PUBLIC RELATIONS MANAGEMENT (3-0) Public relations management decision-making in areas of operation, personnel, content, promotion, finance, and governmental regulations. Prerequisite: PREL 3339, 3355.

PREL 4391 CONFERENCE COURSE (3-0) Topic assigned on an individual basis, covering individual research or study in the designated areas. May be repeated when topic changes, for a maximum of six credit hours. Prerequisite: COMM 2315, 60 or more hours earned, and permission of the department.

PREL 4393 SPECIAL TOPICS (3-0) Special studies in public relations. Topic varies from semester to semester. May be repeated when topic changes for a maximum of six credit hours. Prerequisite: COMM 2315, 60 or more hours earned, and permission of the department.

PREL 4395 PROFESSIONAL INTERNSHIP (10-0) Individual research while working with business and industry. Individual conference to be arranged. Prerequisite: PREL 3339, 60 or more hours earned, and permission of the department. Graded Pass/Fail.

PSYC 1315 INTRODUCTION TO PSYCHOLOGY (3-0) The fundamental methods and content of scientific psychology. Concentration on the understanding of basic principles.

PSYC 2317 BASIC CONCEPTS IN HUMAN SEXUALITY (3-0) The physiological, psychological, and sociological aspects of human sexuality. Offered as BIOL 2317, HEED 2317, PSYC 2317, and WOMS 2317. Credit will be granted for one of these courses only. Students seeking certification in Health Education must enroll in HEED 2317. Students seeking credit toward their science requirement must enroll in BIOL 2317. May not be used for biology grade point calculation or biology credit toward a BS degree in biology, microbiology, medical technology, psychology, or sociology.

PSYC 2359 CURRENT TOPICS IN PSYCHOLOGY (3-0) Students will delve into detail regarding current issues, problems, or topics in modern psychology. Topics will vary depending on instructor. May be repeated for credit as different topics are offered. Prerequisite: PSYC 1315.

PSYC 2443 RESEARCH DESIGN & STATISTICS I (3-2) Theoretical and practical approaches to research methodology, statistical analyses and techniques of report research. Prerequisite: PSYC 1315, MATH 1302 (or equivalent), ENGL 1302, and completion of computer competency requirement.

PSYC 2444 RESEARCH DESIGN & STATISTICS II (3-2) Theoretical and practical approaches to research

methodology, statistical analyses and techniques of report research. Prerequisite: PSYC 2443.

PSYC 3100 PSYCHOLOGY SERVICE LEARNING (1-0) In coordination with the Center for Community Service Learning, students will engage in service learning placements to supplement psychology course work with the goals of research, community involvement and civic engagement. Students will be required to fulfill placement hours and reflective journaling in consultation with the faculty advisor. This course does not satisfy area distribution requirements. Prerequisite: permission of the instructor.

PSYC 3142 LABORATORY IN BEHAVIORAL NEUROSCIENCE (0-3) Research methodologies employed in the study of the biological bases of behavior. Must have completed or be concurrently enrolled in PSYC 3322 or BIOL 3322. Offered as BIOL 3142 and PSYC 3142; credit will be granted only once. BIOL prerequisite: BIOL 1441 & BIOL 1442. PSYC 3142 prerequisite: PSYC 2442 or PSYC 2444.

PSYC 3143 HEALTH PSYCHOLOGY LABORATORY (0-1) Laboratory study of health psychology and critical evaluation of methodologies. Prerequisite: PSYC 2444 and PSYC 4357 or concurrent enrollment.

PSYC 3144 SOCIAL PROCESSES LABORATORY (0-3) Laboratory study and field research of social behavior and critical evaluation of methodologies. Prerequisite: PSYC 2444, and 3315 or concurrent enrollment.

PSYC 3145 COGNITIVE PROCESSES LABORATORY (0-3) Laboratory study of cognitive processes and critical evaluation of methodologies. Prerequisite: PSYC 2444 and 4334 or concurrent enrollment .

PSYC 3146 LABORATORY IN ANIMAL BEHAVIOR (0-3) An introduction to methods in animal behavior used in field, semi-natural, and laboratory settings. In order to enroll, students must have completed or be concurrently enrolled in PSYC 3326. Prerequisite: PSYC 2444.

PSYC 3301 PSYCHOLOGY OF HUMAN RELATIONS (3-0) Workplace applications of topics including person perception, social influence, group processes and dynamics, interpersonal relations, teamwork, leadership, workplace discrimination, diversity, stress, and burnout.

PSYC 3302 BUSINESS PSYCHOLOGY (3-0) A survey of the fields of industrial and organizational psychology, focusing on the application of psychological theory to understanding and solving problems in the workplace. Topics include recruitment, employee selection and training, the effects of attitudes, motivation, group dynamics and leadership, job satisfaction, productivity and morale.

PSYC 3303 DRUGS AND BEHAVIOR (3-0) A survey of the psychoactive agents, their therapeutic uses, and social abuses. Alcohol, nicotine, caffeine, narcotics, hallucinogens, stimulants, and tranquilizers. Offered as BIOL 3303, HEED 3303, and PSYC 3303; credit will be granted only once. May not be used for biology grade point calculation or biology credit toward a

B.S. degree in biology, microbiology, or medical technology. Students seeking certification in health education must enroll in HEED 3303.

PSYC 3304 ANALYSIS & MANAGEMENT OF BEHAVIOR (3-0) Behavioral control techniques for remediation and prevention of problem behaviors and for optimization of normal behaviors in real life settings. Contrasting therapeutic approaches, the ethics of behavior control, and the impact of behaviorism on society. Prerequisite: PSYC 1315 or permission of the instructor.

PSYC 3306 PSYCHOLOGY OF CREATIVITY AND CREATIVE THINKING (3-0) Research and theory relevant to the traits, attitudes, and abilities which are related to creative functioning with emphasis on the conceptual-cognitive components of creative formation and problem solving. Methods of stimulating creative behavior in individuals and in groups. Relevant research findings provide the substance of the course. Prerequisite: PSYC 1315.

PSYC 3307 UNDERSTANDING PSYCHOLOGY THROUGH FILM (3-0) An exploration of psychological issues represented in film. Using an interdisciplinary approach, the medium of film will be used to discuss psychological mechanisms as well as psychotherapeutic processes. Human behaviors such as those involved in character and plot development, as well as the perspectives of filmmakers and movie-goers will be explored. Prerequisite: Six hours of behavioral science (i.e., psychology, sociology, anthropology, and others).

PSYC 3308 FORENSIC PSYCHOLOGY (3-0) Examines the legal system's basic assumptions and procedures in light of social scientific evidence pertaining to human behavior relevant to the rights of defendants, victims, children, and mental patients, including areas of clinical psychology in which psychologists act as expert witnesses and consultants.

PSYC 3310 DEVELOPMENTAL PSYCHOLOGY (3-0) Human development and growth from conception through old age, concerned with the physical, behavioral, and social aspects. Prerequisite: PSYC 1315.

PSYC 3311 ADULTHOOD AND AGING (3-0) Developmental changes in major psychological processes and abilities are related to health, sex, ethnicity, socioeconomic status, and lifestyle. Emphasis is on models of psychobiological changes with age and current empirical knowledge having implications for the preservation of intellectual function, mental health, and physical condition. Prerequisite: PSYC 1315.

PSYC 3312 SOCIAL & PERSONALITY DEVELOPMENT (3-0) A review of psychological theory and research on age trends and individuals differences in personality and social development. Topics include emotional development, aggression, identity and achievement, attachment, gender role development, and familial and extrafamilial influences on development. Prerequisite: PSYC 1315.

PSYC 3313 PSYCHOLOGY OF CULTURAL & GENDER DIVERSITY (3-0) Theory and

research regarding psychological issues related to gender and cultural diversity. These issues will be approached from different perspectives within psychology, including clinical, developmental, social, health, and cognitive psychology. Prerequisite: PSYC 1315.

PSYC 3314 PSYCHOLOGY OF PERSONALITY (3-0) A broad survey of major theories, assessment methods, and representative research in the field of personality. The theoretical approaches considered include the psychoanalytic, neo-Freudian, trait, biological, humanistic, behavioral social/learning, and cognitive approaches. Prerequisite: PSYC 1315.

PSYC 3315 SOCIAL PSYCHOLOGY (3-0) The theories and research dealing with individual behavior in the social environment. Social influence processes, interpersonal attraction, group behavior, aggression, conformity, and attitude formation and change. PSYC 3144 is an optional laboratory which, when added to PSYC 3315, satisfies a portion of the laboratory requirement.

PSYC 3316 ENVIRONMENTAL PSYCHOLOGY (3-0) The effect of the social, physical, and ecological features of the environment on human behavior. The effects of crowding, noise, architecture, urban design, and climate. Prerequisite: PSYC 1315.

PSYC 3317 INTRODUCTION TO CLINICAL AND COUNSELING PSYCHOLOGY (3-0) The student is introduced to psychodiagnostic procedures and the basic approaches of counseling and psychotherapy. Prerequisite: PSYC 1315.

PSYC 3318 ABNORMAL PSYCHOLOGY (3-0) Major forms of psychopathology. Classification, etiology, and treatment of major disorders. Prerequisite: PSYC 1315.

PSYC 3319 PSYCHOLOGY OF ADOLESCENCE (3-0) A topical study of adolescent behavioral and psychological development with emphasis on theory, methods of inquiry, and practical implications. Prerequisite: PSYC 1315.

PSYC 3320 BEHAVIOR AND MOTIVATION (3-0) Theory and research involving relation of motivation and emotion to learning theory, social behavior, personality, and development. Prerequisite: PSYC 1315.

PSYC 3322 BRAIN AND BEHAVIOR (3-0) A comprehensive survey of physiological processes and structures underlying human and animal behavior. PSYC 3142 is an optional laboratory which, when taken concurrently with or after completion of PSYC 3322, satisfies a portion of the laboratory requirement. Formerly listed as PSYC 4322. Offered as BIOL 3322 and PSYC 3322; credit will be granted only once. BIOL 3322 prerequisite: BIOL 1441, 1442. Prerequisite for PSYC 3322: PSYC 1315.

PSYC 3326 ANIMAL BEHAVIOR (3-0) A survey of research and theory comparing behavior at various phyletic levels. Offered as BIOL 3326 and PSYC 3326. Credit will be granted for only one of these courses. Prerequisite: BIOL 1441, 1442.

PSYC 3329 BEHAVIORAL ENDOCRINOLOGY (3-0) The effects of hormones on behavior and the physiological mechanisms which

mediate these effects. Principles of brain-hormone interaction, sexual and aggressive behavior, parental care, ingestion, activity, motivation, learning and memory, behavioral disorders, environmental, and experiential influences on hormone production. Also offered as PSYC 3329; credit will be granted for only one of these courses. Students seeking credit toward the science requirement must enroll in BIOL 3329. Prerequisite: PSYC 1315, or BIOL 4315.

PSYC 3334 COGNITIVE PROCESSES (3-0) Current theory and research in cognitive processes such as memory, information processing, concept formation, and problem solving. Prerequisite: PSYC 1315.

PSYC 3351 PRACTICUM IN APPLIED BEHAVIOR ANALYSIS (0-0) Students receive supervised experience in the application of behavior modification procedures to everyday behavior problems. Practicum students work off-campus in a community setting. The course provides an opportunity to develop skills in setting behavior objectives, analyzing contingencies of reinforcement, and designing, writing, and implementing practical behavior change programs.

PSYC 3355 INTERNSHIP IN PSYCHOLOGY (0-0) Provides the student with an opportunity to apply academic experience to practical situations by serving for a specified number of hours as participant-observer in an off-campus activity. The activity will be reflected in the title on the transcript. Internships must be arranged with an internship supervisor and/or faculty member in the semester prior to enrolling for this course.

PSYC 3356 EVOLUTIONARY PSYCHOLOGY (3-0) A consideration of how evolution has influenced social, cognitive and developmental processes in humans. Comparisons between humans and other species, and between different human cultures will be included. Topics such as mate selection, marriage and family practices, child rearing, social relations, language, thinking, neuropsychology, learning and related topics will be considered. Methods of gathering data and theory about evolutionary processes will be stressed. Prerequisite: PSYC 1315 and nine hours of psychology.

PSYC 4155 ORAL COMMUNICATION SKILLS IN PSYCHOLOGY (1-0) Study and practice of effective oral communication skills in psychology. Students will gain experience in developing effective oral communication techniques by learning to evaluate, prepare, and make oral presentations based on selected topics in psychology. This course will satisfy the Oral Communication Competency requirement in Psychology. Graded by pass/fail only. Prerequisite: PSYC 3315 and 3144 or PSYC 3326 and 3146 or 3420 of PSYC 4322 and 3142 or PSYC 3431 or PSYC 4334 and 3145.

PSYC 4161 READINGS IN PSYCHOLOGY (1-0) Topics arranged on an individual basis. Performance may be assessed by oral exam, written test, or review paper as arranged. Prerequisite: permission of the instructor.

PSYC 4181 RESEARCH IN PSYCHOLOGY (0-0) Research problems arranged on an individual basis, to be conducted by the

student, and written in publishable journal format. Prerequisite: permission of the instructor.

PSYC 4261 READINGS IN PSYCHOLOGY (2-0) Topics arranged on an individual basis. Performance may be assessed by oral exam, written test, or review paper as arranged. Prerequisite: permission of the instructor.

PSYC 4281 RESEARCH IN PSYCHOLOGY (0-0) Research problems arranged on an individual basis, to be conducted by the student, and written in publishable journal format. Prerequisite: permission of the instructor.

PSYC 4301 INTRO TO NEUROSCIENCE (3-0) An in depth understanding of the mechanisms underlying the function of the nervous system. Topics include cellular mechanisms of neural communication, neuroanatomy and neurophysiology of sensory, motor, and autonomic systems, cellular mechanisms of learning and memory, and neuropathological conditions that contribute to neurological disorders. Course offered as BIOL 4301 and PSYC 4301. Credit will be granted only once. Prerequisite: PSYC 3322 (BIOL 3322) or permission of instructor.

PSYC 4303 PAIN RESEARCH AND MANAGEMENT (3-0) An introduction to the psychological and biological factors that underlie pain conditions with a focus on the underlying mechanisms of clinical pain disorders and current pain management strategies.

PSYC 4305 DRUGS & BEHAVIOR (3-0)

PSYC 4306 MAJOR PERSONALITY DISORDERS (3-0) This course surveys the major disorders of human personality. It begins with a review of classic and contemporary perspectives for understanding personality disorders and considers how personality disorders are assessed and treated in the context of psychotherapy. The major personality disorders are examined in considerable detail. They include the avoidant personality, the antisocial personality, the narcissistic personality, the dependent personality, and the borderline personality. Prerequisite: PSYC 1315 and 3314 or 3318.

PSYC 4309 NEUROPHARMACOLOGY (3-0) A survey of how drugs affect the nervous system. General topics will include cellular and molecular foundations of neuropharmacology, receptors and modulation of neural signaling. The specific role of neurotransmitter systems (i.e. acetylcholine, dopamine, norepinephrine, serotonin, and opiate) will be explored. Offered as BIOL 4309 and PSYC 4309; credit will be granted only once. Prerequisite: one or more of the following courses or permission of instructor: BIOL 1441 or PSYC/BIOL 3322 or BIOL 3301.

PSYC 4310 BEHAVIOR THERAPY (3-0) Current theory and practice in the analysis and treatment of psychological disorders using problem solving techniques derived from the experimental analysis of behavior. Behavioral treatment strategies are reviewed for chronic disorders such as fears and phobias, obsessive-compulsive disorder, depression, and anxiety as well as childhood disorders such as language delay, autism, attention deficits, and

hyperactivity. Prerequisite: PSYC 1315. "

PSYC 4325 DEVELOPMENTAL PSYCHOBIOLOGY (3-0) The biological basis of behavioral development. A survey of the influences of maternal factors, genes, hormones, teratogens, early nutrition, and environmental change upon the maturation of the central nervous system. Basic concepts such as critical periods, the organization of behavioral systems, neural plasticity, and the ontogeny of consciousness. Offered as BIOL 4325 and PSYC 4325; credit will be granted only once. Students seeking credit toward the science requirement must enroll in BIOL 4325. Prerequisite: PSYC 3310 or PSYC 3322 (BIOL 3322), or BIOL 3346.

PSYC 4327 BEHAVIORAL GENETICS (3-0) Genetic influences on behavioral phenotypes. Research strategies, quantitative methods, and pharmacogenetic approaches to the brain; sociality and altruism; the personality, emotionality and intelligence; psychopathology; chromosomal abnormalities; forensic implications of genetic counseling. Offered as BIOL 4327 and PSYC 4327; credit will be granted only once. Students seeking credit toward the science requirement must enroll in BIOL 4327. Prerequisite: BIOL 3315 or PSYC 2441.

PSYC 4329 ANIMAL LEARNING AND COGNITION (3-0) A comprehensive survey of psychological, biological, and ethological perspectives on learning, memory, and cognition in animals. Prerequisite: PSYC 2444.

PSYC 4332 THEORIES OF HUMAN LEARNING AND MEMORY (3-0) A comprehensive survey of theories and research concerning basic learning and memory processes and their application to a variety of areas, e.g., eyewitness memory, false memory syndrome, autobiographical memory, memory decline in aging. Theoretical and background perspectives include associative mechanism, information processing approaches, and neurophysiological bases for encoding, storage, and retrieval. Prerequisite: PSYC 2444.

PSYC 4335 COGNITIVE DEVELOPMENT (3-0) Theories and phenomena concerning development of all aspects of human cognition across the life span. Prerequisite: PSYC 2444.

PSYC 4337 PSYCHOLOGY OF TESTING (3-0) The student will become familiar with a wide variety of group and individual tests. Statistical interpretation will be emphasized in terms of validity, reliability, objectivity, item analysis, correlation, and other pertinent criteria. PSYC 1315, 2444.

PSYC 4338 COGNITIVE NEUROPSYCHOLOGY (3-0) Theory and research on the relationship between the brain and human cognition. Normal functioning and comparisons between normal and disordered states (e.g., Alzheimer's disease, amnesia, localized brain injury, age changes). Prerequisite: PSYC 3431, 4332, or 4334.

PSYC 4339 PSYCHOLOGY OF JUDGMENT AND CHOICE (3-0) Research and theory on the errors of intuitive judgment and how formal decision methods improve choices.

Prerequisite: PSYC 2444.

PSYC 4350 SPORTS PSYCHOLOGY (3-0) The course will provide an overview of the growing field of Sports Psychology, which involves applying psychological science to sports. Topics such as maximizing sports performance, elite performance and personality, motivation techniques in sports, leadership skills in sports, etc., will be covered.

PSYC 4355 THE HISTORY OF PSYCHOLOGY (3-0) The evolution of psychology as a science, up to and including contemporary developments.Prerequisite: nine hours of psychology.

PSYC 4357 HEALTH PSYCHOLOGY (3-0) This course provides a broad introduction to health psychology and its interface with the medical world. The course provides a balanced presentation of the important issues in the field, as well as specific content topics that are especially relevant today to better understand health and illness. Offered as BIOL 4357, HEED 4357, and PSYC 4357. Students seeking science requirement credit must enroll in BIOL 4357; students seeking Certification in Health must enroll in HEED 4357. Prerequisite: PSYC 1315 or BIOL 1333 or BIOL 1441 or BIOL 2457; junior standing recommended.

PSYC 4359 SELECTED TOPICS IN PSYCHOLOGY (3-0) Topics pertinent to the field of psychology. Topic, format, and prerequisites to be determined by the instructor. May be repeated for credit as different topics are offered. Prerequisite: to be determined by the instructor.

PSYC 4361 READINGS IN PSYCHOLOGY (3-0) Topics arranged on an individual basis. Performance may be assessed by oral exam, written test, or review paper as arranged. Prerequisite: permission of the instructor.

PSYC 4381 RESEARCH IN PSYCHOLOGY (0-0) Research problems arranged on an individual basis, to be conducted by the student, and written in publishable journal format. Prerequisite: permission of the instructor.

PSYC 4398 HONORS THESIS (3-0) Students may take this course only at the invitation of the department. Consists of a research project of a type and level which would be publishable in one of the psychological journals. Particular emphasis is placed on independent work by the student. Prerequisite: departmental invitation.

PSYC 4410 ADVANCED TOPICS IN DEVELOPMENTAL PSYCHOLOGY (3-2) This course will cover current topics in Developmental Psychology using an interactive, participatory format that includes a lecture portion and a laboratory section. The course will focus on specific content topics that are especially relevant today to better understand and use advanced concepts in Developmental Psychology. Completion of the course is essential for students who are interested in pursuing a career in Developmental Psychology research. Prerequisites: C or better in both PSYC 2444 and PSYC 3310; junior standing recommended.

PSYC 4411 ADVANCED TOPICS IN PERSONALITY (3-2) This course will cover

current topics in Personality using an interactive, participatory format that includes a lecture portion and a laboratory section. The course will focus on specific content topics that are especially relevant today to better understand and use advanced concepts in Personality. Completion of the course is essential for students who are interested in pursuing a career in Personality research. Prerequisites: C or better in both PSYC 2444, PSYC 3314; junior standing recommended.

PSYC 4412 ADVANCED TOPICS IN SOCIAL PSYCHOLOGY (3-2) This course will cover current topics in Social Psychology using an interactive, participatory format that includes a lecture portion and a laboratory section. The course will focus on specific content topics that are especially relevant today to better understand and use advanced concepts in Social Psychology. Completion of the course is essential for students who are interested in pursuing a career in Social Psychology research. Prerequisites: C or better in both PSYC 2444 and PSYC 3315; junior standing recommended.

PSYC 4420 EXPERIMENTAL ANALYSIS OF BEHAVIOR (3-3) A laboratory course examining basic principles of behavior control and analysis with single animals and automated testing apparatus. Emphasis is placed on individualized, self-paced instruction and creative experimentation. Prerequisite: PSYC 2444 and either PSYC 3304 or PSYC 4310.

PSYC 4421 ADVANCED TOPICS IN NEUROSCIENCE (3-3) This course will cover current topics in Neuroscience using an interactive, participatory format that includes a lecture portion and a laboratory section. The course will focus on specific content topics that are especially relevant today to better understand and use advanced concepts in Neuroscience. Completion of the course is essential for students who are interested in pursuing a career in Neuroscience research. Prerequisites: C or better in both PSYC 2444 and PSYC 3322; junior standing recommended.

PSYC 4430 ADVANCED TOPICS IN CLINICAL COUNSELING (3-3) This course will cover current topics in Clinical and Counseling using an interactive, participatory format that includes a lecture portion and a laboratory section. The course will focus on specific content topics that are especially relevant today to better understand and use advanced concepts in Clinical and Counseling. Completion of the course is essential for students who are interested in pursuing a career in Clinical and Counseling research. Prerequisite: PSYC 2444, PSYC 3317 and PSYC 3318; junior standing recommended.

PSYC 4431 ADVANCED TOPICS IN COGNITIVE SCIENCE (3-3) This course will cover current topics in Cognitive Psychology using an interactive, participatory format that includes a lecture portion and a laboratory section. The course will focus on specific content topics that are especially relevant today to better understand and use advanced concepts in Cognitive Psychology. Completion of the course is essential for students who are interested in pursuing a career in Cognitive l Psychology research.

May be repeated for credit as specific topics vary. Prerequisite: PSYC 2444 and PSYC 3334. Junior standing recommended.

PSYC 4432 ADVANCED TOPICS IN HEALTH (3-3) This course will cover current topics in Health Psychology using an interactive, participatory format that includes a lecture portion and a laboratory section. The course will focus on specific content topics that are especially relevant today to better understand and use advanced concepts in Health Psychology. Completion of the course is essential for students who are interested in pursuing a career in Health Psychology research. May be repeated for credit as specific topics vary. Prerequisite: C or better in both PSYC 2444 and PSYC 4357. Junior standing recommended.

REAE 3325 REAL ESTATE FUNDAMENTALS (3-0) A foundation for study and research in specialized areas such as real estate financing, real estate investment and counseling, real estate management, real estate development, and property appraising. Formerly BUSA 3325; credit will be granted only once. Prerequisite: MATH 1316 (or permission of instructor) and junior standing.

REAE 4191 STUDIES IN REAL ESTATE (1-0) Advanced studies, on an individual basis, in the various fields of real estate. Prerequisite: 90 credit hours and permission of instructor. May be repeated for credit with consent of department chair.

REAE 4291 STUDIES IN REAL ESTATE (2-0) Advanced studies, on an individual basis, in the various fields of real estate. Prerequisite: 90 credit hours and permission of instructor. May be repeated for credit with consent of department chair.

REAE 4314 REAL ESTATE DEVELOPMENT (3-0) The land conversion process including feasibility analysis, site selection, design, construction, and financial analysis. Land use controls, planning, and environmental constraints are also examined. Formerly REAE 4311; credit will be granted only once. Prerequisite: junior standing.

REAE 4319 REAL ESTATE FINANCE (3-0) Problems associated with real property financing. In-depth study of financial intermediaries who supply funds for real property investment. May be included as a part of the finance concentration. Formerly BUSA 4319; credit will be granted only once. Prerequisite: REAE 3325 (FINA 3313 may be substituted for non-real estate majors).

REAE 4321 REAL ESTATE INVESTMENT (3-0) The determination of financial feasibility for proposed real estate investments, the effect of income taxes and various financing patterns on the equity investment, and the criteria for proper decision making to maximize benefits for equity investors. Formerly REAE 4310; credit will be granted only once. Prerequisite: REAE 3325 (FINA 3313 may be substituted for non-real estate majors).

REAE 4331 SEMINAR IN REAL ESTATE (3-0) Readings and discussion of special topics in real estate. Prerequisite: Junior or senior standing and consent of instructor. May be repeated for credit with consent of department chair.

REAE 4334 REAL ESTATE APPRAISAL (3-0)

Theory and methods of residential and income property appraisal. Market analysis, highest-and-best-use analysis, capitalization techniques, and market, cost, and income approaches to valuation and reconciliation of value indicators. Prerequisite: REAE 3325 (FINA 3313 may be substituted for non-real estate majors).

REAE 4391 STUDIES IN REAL ESTATE (3-0) Advanced studies, on an individual basis, in the various fields of real estate. Prerequisite: 90 credit hours and permission of instructor. May be repeated for credit with consent of department chair.

REAE 4393 Real Estate Internship (3-0) Practical training in real estate. Analysis of theory applied to real life situations. May be used as an advanced business elective only; graded on a pass/fail basis. No credit will be given for previous experience or activities. May not be repeated for credit. Prerequisite: Junior standing and consent of department internship advisor.

RUSS 1441 BEGINNING RUSSIAN I (3-2) Multimedia immersion in the culture and language of Russian-speaking countries. Designed to enable students to understand and communicate effectively in Russian at the beginning level. No prerequisites.

RUSS 1442 BEGINNING RUSSIAN II (3-2) Continuation of beginning Russian. Prerequisite: RUSS 1441 with a grade of C or better.

RUSS 2313 INTERMEDIATE RUSSIAN I (3-0) Continued immersion in the culture and language of Russian-speaking countries. Application of strategies and technology in mastering listening, speaking, reading, and writing at the intermediate level. Prerequisite: RUSS 1442 with a grade of C or better.

RUSS 2314 INTERMEDIATE RUSSIAN II (3-0) Continuation of intermediate Russian. Prerequisite: RUSS 2313 with a grade of C or better.

RUSS 3301 RUSSIAN LITERATURE IN TRANSLATION (3-0) The works of major Russian authors during the period from the beginning of Russian literature until the 1917 Revolution. The interrelationship of various literary movements and philosophies. Students receiving Russian credit will be required to compare selected translations with the original works and must complete a research or translation project. ENGL 3301: Study of representative works of the major Russian writers from Pushkin through Chekhov. Offered as ENGL 3301 and RUSS 3301; credit will be granted in only one department.

RUSS 3306 SOVIET AND POST-SOVIET LITERATURE IN TRANSLATION (3-0) RUSS 3306: The works of major Soviet and post-Soviet authors from 1917 to the present against the background of unfolding social and political development in the USSR and post-USSR. May be repeated for credit as topics and periods vary. Students receiving credit in Russian will complete a translation or research project using the Russian language. Also listed as ENGL 3306; credit will be given in only one department. ENGL 3306: Study of representative works of Russian writers immediately preceding the 1917 Revolution; of writing by Soviet authors acceptable to the Communist

regime as well as by dissident voices; of the works from the period of glasnost; and of works written after the dissolution of the USSR. Also listed as RUSS 3306; credit will be granted in only one department.

RUSS 3310 LOCALIZATION AND TRANSLATION I (3-0) Introduction to cultural and linguistic issues in the translation of Russian language texts. Students will explore current technologies used in various real-world translation contexts and how to adapt texts, products, and services to the locale for which they are intended. May be repeated once. Prerequisite: RUSS 2314 with a grade of B or better.

RUSS 3311 LOCALIZATION AND TRANSLATION II (3-0) Continued study of cultural and linguistic issues in the translation of Russian and English language texts. Systematic development of advanced skills in localization and computer-aided translation and in using TMX/TBX (international standards for translation memory and terminology exchange) tools. Translation practice, individually and in translation teams, with increasingly longer and more specialized texts. Prepares localization and translation specialists for real-world careers in the language-services industry. May be repeated once. Prerequisite: RUSS 3310 with a grade of B or better.

RUSS 3314 POLITICAL SYSTEMS OF EASTERN AND CENTRAL EUROPE (3-0) POLS 3314 or RUSS 3314. Examination of the political institutions and processes of the former communist systems of Eastern Europe and the Baltics, as well as selected Central European states. Credit will be given in only one department. Students receiving credit in Russian will complete projects using the Russian language.

RUSS 3333 CONVERSATION AND TOPICS IN RUSSIAN CULTURE (3-0) Intermediate practice in spoken Russian using print and media resources on a range of cultural topics. Students actively master the discourse of the source media through dialogue, debate, and short presentations in Russian. May be repeated as topic varies. May be taken concurrently with RUSS 2313 and/or 2314. Credit will not be granted to native speakers. Prerequisite: RUSS 1442 with a grade of C or better.

RUSS 3343 RUSSIAN PHONETICS (3-0) Introduction to the articulatory phonetics of Russian. Of special interest to students who wish to improve their pronunciation, comprehension, and oral expression. Prerequisite: RUSS 2314 with a grade of C or better.

RUSS 3391 CONFERENCE COURSE (3-0) Independent study; consultation with instructor on a regular basis. May be repeated for credit. Prerequisite: Permission.

RUSS 4301 SELECTED AUTHORS AND TOPICS (3-0) Detailed reading and analysis of selected Russian writers such as Alexander Pushkin, Nikolai Gogol, Fyodor Dostoevsky, Leo Tolstoy, Ivan Turgenev and Anton Chekhov. Their works are compared in the light of urgent social, political, literary and philosophical questions of their day. May be repeated as topic varies. No prerequisites. Students majoring in Russian

read some texts in the original. Taught in English. Satisfies the core curriculum requirement for literature.

RUSS 4302 RUSSIAN AND SOVIET CINEMA (3-0) A survey of Russian and Soviet cinema from their beginnings to the present. Special attention is paid to film theory and formal analysis, the ideological uses of film art, and cinema as a medium of cultural dissent and witness to social change. No prerequisites. May also be offered as ENGL 3300; credit will be granted in only one department. Taught in English.

RUSS 4303 PROPAGANDA AND IDEOLOGY IN SOVIET ART AND LITERATURE (3-0) An examination of the purpose, value and influence of the arts in revolutionary Russia with the aid of diverse source documents and artistic media. Focus is on the symbols, stories, rituals and ideologies that defined the Russian experience of `building socialismÿ in the early decades of the Soviet Union. No prerequisites. Students majoring in Russian read some texts in the original. Taught in English. Satisfies the core curriculum requirement for literature.

RUSS 4304 BANNED AND CENSORED WORKS OF RUSSIAN LITERATURE (3-0) An examination of selected works of Russian literature that were censored, banned or otherwise prohibited, from tsarist Russia through the Soviet period. The role of censorship in Russian cultural life, and the great works of literature that flourished in spite of it. No prerequisites. Students majoring in Russian read some texts in the original. Taught in English. Satisfies the core curriculum requirement for literature.

RUSS 4334 THE CULTURE OF BUSINESS (3-0) A preparatory course in business Russian, focusing on social, political, and economic structures in Russia and Russian-speaking areas. Special emphasis will be placed on current events affecting the Russian business world. Prerequisite: two 3000-level Russian courses.

RUSS 4335 BUSINESS RUSSIAN (3-0) An introduction to business terminology, skills needed for writing business letters, conducting telephone conversations, commercial transactions, and international procedures. Operational and strategic issues involved in interaction with Russian firms and markets; international trade; competitive, vendor-customer, and collaborative relations. Prerequisite: two 3000-level Russian courses.

RUSS 4359 HISTORY OF RUSSIA TO 1885 (3-0) A survey of Russian history from the origins of the first Russian state through the reign of Nicholas I. Special attention to such topics as the Kievan Rus, the Mongol impact and Muscovite state, the rise of Imperial Russia, and Russia's emergence as a global power. Offered as HIST 4359 and RUSS 4359.

RUSS 4360 HISTORY OF RUSSIA SINCE 1855 (3-0) A survey of Russian history from the reign of Alexander II to the present. Special attention to such topics as the decline of Imperial Russia, the rise of the revolutionary spirit, and the emergence, consolidation, and development of the Soviet state. Offered as HIST 4360 and RUSS 4360.

RUSS 4361 THE POLITICAL ENVIRONMENT OF RUSSIA AND THE SUCCESSOR STATES

(3-0) The domestic political systems of Russia and the other former Soviet republics. The communist state in retrospect. Development of political actors, institutions, and parties. Offered as POLS 4361 and RUSS 4361; credit will be given in only one department. Taught in English; for Russian language credit, research will be done in Russian.

RUSS 4362 RUSSIA AND THE SUCCESSOR STATES TODAY (3-0) The metamorphosis of the Communist Party and the current political philosophies of the post-Soviet states. Examination of attitudes and self-perceptions of citizens of these states in the post-period. Emphasis is on area studies and culture. The course will be taught in English, but for Russian language credit; research will be done in the Russian language. May be repeated for credit as topics change. Offered as HIST 4362, POLS 4362, & RUSS 4362. Credit will be granted in only one department.

RUSS 4365 FOREIGN POLICIES OF RUSSIA AND THE SUCCESSOR STATES (3-0) The foreign policies of Russia and other former Soviet republics. Development of their policymaking structures and the major issues confronting them. Emphasis on Russia and the superpower relationship, European security and cooperation, relations with developing states, and the interactions of the former Soviet republics. Also listed as RUSS 4365; credit will be given in only one department.

RUSS 4391 CONFERENCE COURSE (0-0) Independent study in the preparation of a paper or a translation on a research topic; consultation with instructor on a regular basis. May be repeated for credit.

RUSS 4393 RUSS INTERNSHIP (0-5)

RUSS 4394 HONORS THESIS/SENIOR PROJECT (0-0) Required of all students in the University Honors College. During the senior year, the student must complete a thesis or a project under the direction of a faculty member in the major department. May not be repeated for credit.

SCIE 1101 STEP 1: INQUIRY APPROACHES TO TEACHING (1-0) Step 1 allows students to explore teaching as a career. Following an introduction to the theory and practice behind excellent inquiry-based science and mathematics instruction, students teach lessons in elementary classrooms to obtain firsthand experience in planning and implementation.

SCIE 1102 STEP 2: INQUIRY-BASED LESSON DESIGN (1-0) In Step 2, students continue developing the lesson planning skills learned in Step 1 as they become familiar with exemplary middle school science curricula. After observing a lesson being taught in a local school district classroom, students work alone or in pairs to plan and teach three inquiry-based lessons to sixth, seventh, or eighth graders. Prerequisite: Credit or concurrent enrollment in SCIE 1101.

SCIE 2301 FOUNDATIONS OF SCIENCE (3-0) An integrated presentation of the methodology and fundamental concepts in the physical, biological and behavioral sciences with special emphasis on their social, cultural and historical context. Topics will be organized around a selected

theme, such as origins, the environment or science and society. The primary goal is to prepare students to participate in modern society. This course does not require previous background in the sciences and satisfies the Social/Cultural Studies requirement of the core curriculum.

SCIE 2392 SPECIAL TOPICS IN SCIENCE (3-0) Topics as selected by the instructor. May be repeated for credit as the topic varies. Prerequisite: permission of the department.

SCIE 3301 PHYSICAL SCIENCE - PHYSICS (3-0) This integrated study of physics and chemistry includes force and motion, waves, thermodynamics energy transformations, and quantum physics. Prerequisite: permission of instructor.

SCIE 3302 PHYSICAL SCIENCE - CHEMISTRY (3-0) This physical science includes atomic structure, chemical bonding, the periodic table, nomenclature, kinetic theory, gas laws, chemical equations, and solutions.

SCIE 3303 GEOLOGY, METEOROLOGY, AND OCEANOGRAPHY (3-0) This integrated study of the earth emphasizes interactions among plate tectonics, the atmosphere, the oceans, the biosphere, and human activity. Topics include formation, composition, and shaping of the earth, including plate tectonics, the rock cycle, natural energy resources, characteristics of oceans, characteristics of the atmosphere, climate, and weather. This course is designed to meet the needs of students seeking to become elementary or middle school science teachers.

SCIE 3304 ASTRONOMY (3-0) Topics include the evolution of the universe, properties of light and the life cycle of stars, galaxies, and apparent motions and characteristics of the solar system. This course is designed to meet the needs of students seeking to become elementary or middle school science teachers.

SCIE 3305 ENVIRONMENTAL SYSTEMS (3-0) Topics include interrelationships among biotic and abiotic factors within habitats, ecosystems, and biomes and the energy flow through environmental systems. This course is designed to meet the needs of students seeking to become elementary or middle school science teachers.

SCIE 4101 SPECIAL TOPICS IN COMPOSITE SCIENCE (1-0) This special seminar will focus on contemporary issues on integrated science topics, including reflections on science teaching experiences and contemporary critical issues in science education. Prerequisite: permission of instructor.

SCIE 4192 SELECTED TOPICS IN SCIENCE (1-0) (Variable credit 1-3 hours as arranged). 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.

SCIE 4302 TEACHING AND LEARNING: SCIENTIFIC INQUIRY (3-0) 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.

SCIE 4325 WOMEN IN SCIENCE (3-0)
Explores the role of women in science. Emphasis on gender and science, the history of women in science, gender equity in the classroom, strategies for the retention of women scientists, the current culture/climate for women in science, and contemporary women in science. Offered as EDUC 4325, SCIE 4325, and WOMS 4325. Credit will be granted only once.

SOAR 0010 RDG SKILLS REVW (3-0)

SOAR 0020 WRTG SKILLS REV (3-0)

SOAR 0030 MATH SKILLS REV (3-0)

SOAR 0040 ESOL WRITING (3-0)

SOCI 1311 INTRODUCTION TO SOCIOLOGY (3-0) (SOCI 1301). A scientific approach to the analysis and explanation of culture, personality, and social organization. The social processes and mechanisms of interaction involved in the natural process of cultural development, dissemination, assimilation, and the institutions of the group.

SOCI 2312 CONTEMPORARY SOCIAL ISSUES (3-0) Selected topics in contemporary social issues.

SOCI 3312 JUVENILE DELINQUENCY (3-0)
The delinquent as a person and delinquency as a social problem, theories of delinquency, and methods of correctional treatment and preventive programs.

SOCI 3313 CRIMINOLOGY (3-0)
Crime-related social issues. Defining and measuring crime, surveying major theoretical explanations of criminal behavior, and society's formal responses to crime and criminals.

SOCI 3314 THE LATINA EXPERIENCE (3-0)
Examines the social, cultural and economic experiences of Latin American women in the United States, with particular emphasis on Mexican-origin women. The course surveys the historical and contemporary experiences of Latinas in the United States with respect to family dynamics, religion, education, politics, health and illness, the labor market, mass media, and the arts.

SOCI 3315 SOCIAL PSYCHOLOGY OF CRIME (3-0) Selected concepts in social psychology applied to issues in crime and justice, such as the actions of victims, criminals, and criminal justice professionals. Topics include aggression, social perception, cognitions, conformity, obedience, and deviance.

SOCI 3317 INDIVIDUAL AND SOCIETY (3-0)
How society influences individual thought, feeling, and behavior. Includes interpersonal perception, attitudes, norms, roles, conformity, and such social issues as aggression, helping behavior, prejudice, and interpersonal attraction.

SOCI 3318 SELF AND SOCIAL IDENTITY (3-0) The social self. Topics include factors in the development, organization, evaluation and presentation of self in everyday life and processes by which social

categories and roles influence self concept.

SOCI 3319 SMALL GROUPS (3-0) The process and structures of small-scale interaction systems, including an analysis of the process of leadership, the exercise of influence, the effect of groups on individuals and of individuals on groups, the relation and function of the small group as a part of a larger whole, and the process of group formation, development, and disintegration.

SOCI 3320 DEVIANCE: SOCIAL AND PERSONAL (3-0) Theoretical perspectives on societal definitions of behavior as deviant or disorganized. Selected studies, representative of current problems, examined critically in terms of the structural-cultural conditions of contemporary society.

SOCI 3321 SOCIALIZATION AND SOCIAL CONTROL (3-0) The relationship between social structure and the individual. The influence of social factors on cognitive development, personality formation, and the behavior of individuals throughout the lifecycle. The effect of socialization on conformity and deviance. Prerequisite: sophomore standing or permission of the instructor.

SOCI 3323 COLLECTIVE BEHAVIOR (3-0) Provides an overview of the elementary forms of collective behavior including riots, panics, fads, fashion, cults and crazes. Explanatory theories and specific instances of the different forms of collective behavior are examined. Prerequisite: SOCI 1311.

SOCI 3324 SOCIAL MOVEMENTS (3-0) Focuses on twentieth and twenty-first century social movements, including the U.S. civil rights movement, the student and anti-war movements of the 1960s, the women's movement, the environmental movement, and anti-globalization movements. Status politics movements, such as pro-choice/pro-life and gay rights movements, are also explored. Compares these movements with their counterparts in other countries and identifies the reasons for their successes and failures. Prerequisite: SOCI 1311.

SOCI 3327 INTERCULTURAL INTERACTION (3-0) Patterns and variations in interactions involving people from different cultures and subcultures. Intercultural interaction, both within multicultural societies and between persons from different societies.

SOCI 3328 MARITAL AND SEXUAL LIFESTYLES (3-0) Contemporary American lifestyles selected from: singles, traditional marriage, homosexuals, single-parent families, open marriage, non-marital sexuality, cohabitation, dual-career marriage, childless couples, egalitarian marriage, families in later life. Offered as SOCI 3328 and WOMS 3328; credit will be granted only once.

SOCI 3331 SOCIOLOGY OF THE FAMILY (3-0) The family's role in American society and in other cultures past, present, and future. Family research methods, comparative family systems, child development/parenting, culture and personality, minority families, social class variation in families, work and family. Prerequisite: sophomore standing or permission of the instructor. Offered as

SOCI 3331 and WOMS 3331; credit will be granted only once.

SOCI 3334 GENDER ROLES (3-0) Theories of gender role socialization and change in female and male roles. Impact of biology, psychology, and socialization on gender role development. How we learn gender in various social contexts including the family, education, and the peer group. Offered as SOCI 3334 and WOMS 3334; credit will be granted only once.

SOCI 3336 SOCIAL INEQUALITY (3-0) Examines the processes, characteristics, and consequences of social inequality in society. Topics include the social class structure, status groups, and elite power structure as they influence people's life chances.

SOCI 3337 RACIAL & ETHNIC GROUPS IN US (3-0) Compares the immigration, acculturation, and adjustment processes of various racial/ethnic groups in the U.S. Examines historical and contemporary discrimination in relation to the social conditions of racial/ethnic minority groups in the U. S. Topics include classical and contemporary theory; individualistic, cultural, and structural arguments about social arrangements; and conflict among majority and minority groups. Prerequisite: SOCI 1311. Credit will not be granted for both SOCI 3337 and SOCI 4310 or for MAS 3337 and MAS 4310.

SOCI 3338 CONTEMPORARY BLACK EXPERIENCE (3-0) An overview of recent research concerning the African American experience in the post-civil rights era. Topics include explanations for racial differences across spheres of society such as income, education, and occupation; the debate over race versus social class; the persistence of racial discrimination; and emerging disputes within the black community regarding "what it means to be black." Prerequisite: SOCI 1311.

SOCI 3340 SOCIOLOGY OF EDUCATION (3-0) Social relations between the school and society, teachers and parents, teachers and school management, and other relevant relationships. Studying cooperation and conflict, values, complex organizational structure, and social change. Prerequisite: sophomore standing or permission of the instructor.

SOCI 3341 SOCIOLOGY OF SPORT (3-0) Sociological examination of the institution of sport in U.S. society. By examining selected topics such as sport and socialization, sport and politics, sport and education, the Olympics, race and sport, violence in sport, women in sport, and the business of sport, this course will address the social significance of sport and its function as a major social institution. Prerequisite: SOCI 1311.

SOCI 3346 U.S. INTO THE TWENTY-FIRST CENTURY (3-0) Selected problems, prospects, and dilemmas examined in the context of contemporary perspectives in sociology as the United States enters the new millennium as a global actor.

SOCI 3351 WORK IN MODERN SOCIETY (3-0) The changing patterns of work in modern society. The impact of technology, changing characteristics of the work force, and developments in organizational and

occupational structure are examined. Prerequisite: sophomore standing or permission of the instructor.

SOCI 3352 SOCIAL STATISTICS (3-0) Descriptive statistics including measures of central tendency, measures of dispersion, and measures of association. Emphasis is on probability theory and testing hypotheses. Specific models include T-Test, chi-square, gamma, lambda, theta, analysis of variance and covariance, regression and correlation analysis. Prerequisite: sophomore standing or permission of the instructor.

SOCI 3353 SOCIAL CLIMATE OF CITIES (3-0) A comparative study of urban communities and metropolitan areas in terms of their distinctive social life and culture. Topics touching on power and urban politics, race and ethnic relations, poverty, and leisure and lifestyles will be examined in terms of their contribution to the unique social climate of cities.

SOCI 3355 COMPUTER APPLICATIONS IN THE SOCIAL SCIENCES (3-0) Students will learn how to develop a research proposal, collect and analyze data based on the proposal, and present the results. The course will emphasize computer analysis, graphics and presentation skills through the use of popular software packages such as Word, Excel, Access, Power Point, and SPSS. Internet data collection and web publishing will also be covered. Individual and group oral presentation is a cornerstone of the course mission. Satisfies the university requirements for computer literacy and oral communication. Prerequisite: SOCI 3352 or equivalent.

SOCI 3356 WOMEN, WORK AND SOCIAL CHANGE (3-0) Women's work experiences, how these experiences are changing, and relationship between paid employment and non-wage household labor. Paid and unpaid work experiences are empirically examined in terms of a variety of theoretical perspectives. Offered as SOCI 3356 and WOMS 3356; credit will be granted only once.

SOCI 3357 LAW AND SOCIETY (3-0) Law as a social institution. The processes of defining criminal conduct and the social functions of law and of legal processes and systems. Prerequisite: sophomore standing or permission of the instructor.

SOCI 3365 PROGRAM EVALUATION & NEEDS ASSESSMENT (3-0) Introduces basic concepts in evaluation research addressing the need for and implementation, effectiveness, and efficiency of social intervention efforts. Students will advance their skills in quantitative and qualitative research in partnership with community organizations. The course provides an opportunity to learn about and apply techniques for needs assessment, formative and summative program evaluation, developing and testing social impact models, examining costs and benefits, and communicating findings. Prerequisite: SOCI 3462.

SOCI 3372 SOCIOLOGICAL THEORY (3-0) The nature and function of sociological theory and the systematic organization of concepts and principles for the explanation of social phenomena as a guide for social research. Formerly SOCI 4311; credit will be granted only once. Prerequisite: junior

standing or permission of the instructor.

SOCI 3390 HONORS COLLOQUIUM (3-0) An interdisciplinary course designed to meet the needs of advanced undergraduates in the Honors College. Prerequisite: participation in the Honors College and/or permission of the instructor.

SOCI 3462 SOCIAL RESEARCH (3-2) Required of all sociology majors. The major quantitative and qualitative techniques for sociological research. Setting up and implementing a research project, interpreting findings, and preparing a required final paper. Lab includes design, sampling, instrumentation, data analysis, and writing results. Formerly SOCI 3305; credit will be granted only once. Prerequisite: SOCI 3352 or permission of the instructor.

SOCI 4191 CONFERENCE COURSE (1-0) Topics assigned on an individual basis covering personal research or study in the designated areas. Prerequisite: permission of the instructor.

SOCI 4291 CONFERENCE COURSE (2-0) Topics assigned on an individual basis covering personal research or study in the designated areas. Prerequisite: permission of the instructor.

SOCI 4303 WOMEN IN SOCIETY (3-0) Women's status in contemporary American society, including the family, workplace, and politics. Women's status will also be examined in historical and crosscultural perspectives. Offered as SOCI 4303 and WOMS 4303; credit will be granted only once.

SOCI 4306 QUALITATIVE RESEARCH METHODS (3-0) Conceptual frameworks and techniques for planning, conducting, analyzing, reporting and evaluating qualitative research. Topics include interviewing, participant observation, coding, case studies and focus groups. Prerequisite: sophomore standing or permission of the instructor.

SOCI 4315 VIOLENCE IN SOCIETY (3-0) Violence as a group process directed toward social change. Historical perspectives, current events, preventive and control techniques, public reaction, and individual behavior. Prerequisite: sophomore standing or permission of the instructor.

SOCI 4320 MEDICAL SOCIOLOGY (3-0) The relationships between different societies and social groups and their incidence of disease and mortality. Also examines culture-related causes of disease and treatment approaches, medicine as an occupation, healer-patient relationships, and the modern hospital as a bureaucratic organization.

SOCI 4325 POPULATION TRENDS & PROCESSES (3-0) Examines the fact that all people are born, usually move from one place to another, and inevitably die. Societal patterns in human fertility, migration and mortality contribute to widely varied life-chances for people over time and across the planet. This course explores theories and research on demographic dimensions of human behavior as they affect social and economic issues. The course provides an understanding of how vital population trends and processes

are for assessing social problems and offering solutions.

SOCI 4331 RACE, ETHNICITY & FAMILY FORMATION (3-0) Investigates the ways in which cultural understandings of race and ethnicity have shaped historical and contemporary variations in family structure, familial experiences, and the legal possibilities for family formation. Junior standing (60 hours) or permission of the instructor required to enroll in this course.

SOCI 4365 TOPICS IN SOCIOLOGY (3-0) Selected topics in social issues, policy, processes and/or structure. Prerequisite: junior standing or permission of the instructor. May be repeated for credit with departmental permission.

SOCI 4370 SENIOR RESEARCH SEMINAR (2-2) Provides sociology majors with an opportunity to gain practical experience in social research through in-depth participation in a cooperative research project. Integrates substantive knowledge with methodological and statistical skills. Oral, written, and computer application components are included. Prerequisite: SOCI 3352 and 3462 or permission of the instructor.

SOCI 4391 CONFERENCE COURSE (3-0) Topics assigned on an individual basis covering personal research or study in the designated areas. Prerequisite: permission of the instructor.

SOCI 4394 HONORS THESIS/SENIOR PROJECT (0-0) Required of all students in the University Honors College. During the senior year, the student must complete a thesis or project of equivalent difficulty under the direction of a faculty member in the major department.

SOCW 2311 INTRODUCTION TO SOCIAL WORK (3-0) (SOCW 2361). An overview of the social work profession, its fields of practice, methods of social intervention, its historical context, and its relationship to the social welfare system.

SOCW 2313 SOCIAL WORK PRACTICE I (3-0) Critical evaluation of the value base of the social work profession and basic practice concepts in a framework for understanding a variety of intervention models. Requires a 25-hour volunteer placement in a human service agency. Prerequisite: SOCW 2311. Prospective BSW majors only.

SOCW 3301 HUMAN BEHAVIOR AND THE SOCIAL ENVIRONMENT I (3-0) The first of two required human behavior courses that explore, within the context of a strengths and empowerment perspective, knowledge of the bio-psycho-social development of persons from birth through young adulthood.

SOCW 3302 HUMAN BEHAVIOR AND THE SOCIAL ENVIRONMENT II (3-0) The second of two required human behavior courses that explore, within the context of a strengths and empowerment based perspective, knowledge of the bio-psycho-social development of persons from adulthood to death.

SOCW 3303 SOCIAL WELFARE POLICY AND SERVICES (3-0) 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 is also examined in the context of the evolution and function of the contemporary American social welfare system. Prerequisite: SOCW 2311.

SOCW 3304 SOCIAL WORK PRACTICE II (3-0) Theories and methodologies of social work assessment and intervention at the individual, family, and group levels in diverse settings. Prerequisite: SOCW 2311, 2313, 3301. BSW majors only.

SOCW 3305 SOCIAL WORK RESEARCH METHODS (3-0) This course is designed to provide students with the fundamental skills to understand, use, and conduct research to advance the knowledge base of the social work profession and assess the effectiveness of social work interventions in generalist social work practice. The course addresses elements of the research process, quantitative and qualitative methods, research ethics, and approaches to data analysis. Particular attention will be given to the role of research with populations-at-risk, social and economic justice, and cultural diversity. Prerequisite: SOCW 2311; SOCW 3325 OR SOCI 3352, or permission of the instructor.

SOCW 3306 SOCIAL WORK PRACTICE III (3-0) The theory and practice of social change at the community level, including a sociological analysis of bureaucracies as collectivities of power, and of the community as a social phenomenon. Three models of community organization--community development, social action, and social planning--will be emphasized including methods of resource delivery and redistribution. Prerequisite: SOCW 2311, 2313. BSW majors only.

SOCW 3317 HUMAN BEHAVIOR AND DIVERSE POPULATIONS (3-0) Introduction to theoretical, practical, and policy issues related to diverse populations. Historical, political, and socioeconomic forces are examined that maintain discriminatory and oppressive values, attitudes, and behaviors in society and in all levels of organizational behavior. Prerequisite: SOCW 2311, 2313.

SOCW 3325 SOCIAL WORK STATISTICS (3-0) This course is designed to enhance studentsÿ skills as research consumers and in performing research and statistical analyses in social work and social science. Included in the course are descriptive statistical procedures including measures of central tendency, variability, shape and distribution along with associations between two variables. In addition, inferential statistics are covered including estimation and hypothesis testing. Prerequisites: SOCW 2311 and SOCW 2313.

SOCW 4191 CONFERENCE COURSE (1-0) Topics assigned on an individual basis covering personal research or study in designated areas. Prerequisite: permission of the instructor.

SOCW 4251 SOCIAL WORK FIELD SEMINAR I (2-0) Integration of social work knowledge, theory, and skills learned in the classroom with practical application in a social work setting. Prerequisite: SOCW 2311, 2313, 3301, 3302, 3304, and concurrent enrollment in SOCW 4451. BSW majors only.

SOCW 4252 SOCIAL WORK FIELD SEMINAR II (2-0) Integration of theory and practice, based primarily on field instruction experiences. This course must be taken in the semester immediately following 4451. Prerequisite: 3303 or 3306, 4251, 4451, SOCI 3352; and concurrent enrollment in SOCW 4452. BSW majors only.

SOCW 4291 CONFERENCE COURSE (2-0) Topics assigned on an individual basis covering personal research or study in designated areas. Prerequisite: permission of the instructor.

SOCW 4310 SOCIAL WORK WITH CHILDREN AND FAMILIES (3-0) A critical examination of social policies, research, and practices impacting at-risk children and families in child welfare, child mental health, and school settings. Emphasis is placed on the role of the social work practitioner in enhancing the well-being of children and families in contemporary society. Prerequisite: SOCW 2311 or consent of the instructor.

SOCW 4350 SPECIAL ISSUES IN SOCIAL WORK (3-0) Relevant social work topics generated and explored in depth according to student and professional needs. The topic will be determined prior to registration. Prerequisite: permission of the instructor.

SOCW 4391 CONFERENCE COURSE (3-0) Topics assigned on an individual basis covering personal research or study in designated areas. Prerequisite: permission of the instructor.

SOCW 4451 SOCIAL WORK FIELD INSTRUCTION I (16-0) Supervised social work experience in a human service agency. Integration of generalist practice concepts into professional practice experiences. Requires a minimum of 240 clock hours in the agency. Prerequisite: 2311, 2313, 3301, 3302, 3304 , and concurrent enrollment in SOCW 4251. P/F grading. BSW majors only. For additional information and requirements, see the BSW Field Policies and Procedures Manual.

SOCW 4452 SOCIAL WORK FIELD INSTRUCTION II (16-0) Supervised social work experience in a human service agency. Integration of generalist practice concepts into professional practice experiences. Requires a minimum of 240 clock hours in the agency. Prerequisite: SOCW 3303, 3306, 4251, 4451, and concurrent enrollment in SOCW 4252. This course must be taken in the semester immediately following SOCW 4451. P/F grading. BSW majors only. For additional information and requirements, see the BSW Field Policies and Procedures Manual.

SOCW 4453 SOCIAL WORK FIELD SEMINAR (4-0) Here, the field requirement is fulfilled in one semester. Prerequisite: Acceptance into the Title IV-W Child Welfare Program.

SOCW 4853 SOCIAL WORK FIELD INSTRUCTION (8-0) Supervised social work experience in a Child Protective Services agency. Integration of generalist practice concepts into professional practice experiences. Requires a minimum of 480 clock hours in the agency. Prerequisite: Acceptance into the Title IV-E Child Welfare Program, SOCW 2311, 2313, 3301, 3302, 3303, 3304, 3305, and 3306.

SPAN 1441 BEGINNING SPANISH I (3-2) Beginning study of Spanish language with emphasis on speaking, listening, reading, and writing. No prerequisites. Native or heritage speakers of Spanish may not take this course.

SPAN 1442 BEGINNING SPANISH II (3-2) Continuation of beginning Spanish. Prerequisite: SPAN 1441 with a grade of C or better. Native or heritage speakers of Spanish may not take this course.

SPAN 2313 INTERMEDIATE SPANISH I (3-0) Intermediate study of Spanish language with emphasis on speaking, listening, reading, and writing. Prerequisite: SPAN 1442 with a grade of C or better. Native or heritage speakers of Spanish may not take this course.

SPAN 2314 INTERMEDIATE SPANISH II (3-0) Continuation of intermediate Spanish. Prerequisite: SPAN 2313 with a grade of C or better. Native or heritage speakers of Spanish may not take this course.

SPAN 2391 CONFERENCE COURSE (3-0) Independent study; consultation with instructor on a regular basis. Prerequisite: Permission of the instructor.

SPAN 3302 HISPANIC LITERATURE IN TRANSLATION (3-0) The works of major authors and intellectual trends of a given period. May be repeated for credit as topics or periods vary. SPAN 3302 cannot be applied toward the B.A. in Spanish or toward a Spanish minor, but may be taken as a Liberal Arts elective or to fulfill the foreign language literature requirement. Prerequisite: 2314 of a Modern or Classical language and six hours of English.

SPAN 3303 ADVANCED SPANISH CONVERSATION (3-0) Practice in oral expression with an emphasis on vocabulary building and grammar review. Of special interest to students who wish to improve their skills in pronunciation, comprehension, and oral expression. Credit will not be granted to native or heritage speakers of Spanish. Prerequisite: SPAN 2314 with a grade of C or better.

SPAN 3304 SPANISH FOR HERITAGE SPEAKERS I (3-0) This course is designed for heritage speakers of Spanish who demonstrate an ability to comprehend and produce Spanish but who may lack previous formal instruction in the language. Capitalizes upon students' existing language skills, expands their knowledge base, and develops their ability to read, write, and communicate more effectively in the language. Special attention is given to regional and dialectal differences. Prerequisite: Equivalent of SPAN 2314, or consent of the department.

SPAN 3305 SPANISH FOR HERITAGE SPEAKERS II (3-0) A continuation of SPAN 3304, consisting of a detailed study of advanced Spanish grammar with an emphasis on written expression. Exclusively for heritage speakers of Spanish. Prerequisite: SPAN 3304 with a grade of C or better.

SPAN 3311 SPANISH CULTURE AND CIVILIZATION (3-0) Spanish history with emphasis on cultural, intellectual, and artistic trends and existing social institutions. Prerequisite: SPAN 2314 with a

grade of C or better.

SPAN 3312 LATIN AMERICAN CULTURE AND CIVILIZATION (3-0) An interdisciplinary introduction to Latin American society, history and culture. Prerequisite: SPAN 2314 with a grade of C or better. Offered as MAS 3312 and SPAN 3312; credit will be granted for either MAS or SPAN.

SPAN 3314 ADVANCED SPANISH GRAMMAR (3-0) A detailed study of Spanish grammar. Prerequisite: SPAN 2314 with a grade of C or better.

SPAN 3315 COMPOSITION THROUGH LITERATURE (3-0) Practice in original composition and critical thinking through the study of selected literary and cultural texts. Of special interest to students who wish to improve their reading comprehension and their writing skills. Prerequisite: SPAN 3305 or SPAN 3314, with grade C or better.

SPAN 3319 INTRODUCTION TO SPANISH LINGUISTICS (3-0) Introductory study of the structure of the Spanish language including phonology, morphology, and syntax, as well as historical, regional, and social variation. Prerequisite: SPAN 3314 or 3305 with a grade of C or better.

SPAN 3320 INTRODUCTION TO HISPANIC LITERATURE AND CULTURE (3-0) An introduction to the tools of literary and cultural criticism as well as Spanish and Latin American literary history. Study of representative literary texts with the object of developing students' understanding of historical change and cultural crosscurrents. Prerequisite: SPAN 3315 with a grade of C or better.

SPAN 3340 INTRODUCTION TO TRANSLATION (3-0) Introduction to the theory, methods and practice of Spanish-English translation and English-Spanish translation. The student will learn how to address translation problems related to culture and language as well as the fundamentals of translating general material from different fields such as journalism, advertising, tourism, gastronomy, health, business, etc. The student will also acquire basic knowledge of translation theory. Prerequisite: SPAN 3315 with a grade of C or better.

SPAN 3391 CONFERENCE COURSE (3-0) Independent study; consultation with instructor on a regular basis. Offered primarily in summer study abroad programs. May be repeated for credit. Prerequisite: Permission of the instructor.

SPAN 4191 CONFERENCE COURSE (1-0) Independent study; consultation with instructor on a regular basis. May be repeated for credit. Prerequisite: Permission of the instructor.

SPAN 4310 TOPICS IN PENINSULAR SPANISH LITERATURE AND CULTURE TO THE EIGHTEENTH CENTURY (3-0) 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. Prerequisite: SPAN 3315 with a grade of C or better.

SPAN 4311 TOPICS IN PENINSULAR

SPANISH LITERATURE AND CULTURE, EIGHTEENTH CENTURY TO THE PRESENT (3-0) Topics may include: Neoclassical 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. Prerequisite: SPAN 3315 with a grade of C or better.

SPAN 4313 TOPICS IN HISPANIC CULTURE (3-0) Among the topics are Spanish or Latin American music, television, radio, film, and literature as culture. May be repeated for credit as topic changes. Prerequisite: SPAN 3315 with a grade of C or better. Offered as MAS 4313 and SPAN 4313; credit will be given for MAS 4313 or SPAN 4313 but not both in a given semester.

SPAN 4314 TOPICS IN LATIN-AMERICAN LITERATURE AND CULTURE TO MODERNISM (3-0) Topics may include: Colonial Latin-American literature and culture, pre-modern Latin-American literature and culture, Latin-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. Prerequisite: SPAN 3315 with a grade of C or better.

SPAN 4315 TOPICS IN CONTEMPORARY LATIN-AMERICAN LITERATURE AND CULTURE, MODERNISM TO THE PRESENT (3-0) Topics may include: Latin-American literature and culture of Modernism, modern Latin-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. Prerequisite: SPAN 3315 with a grade of C or better. Offered as MAS 4315 or SPAN 4315; credit will be given for MAS 4315 or SPAN 4315 but not both in a given semester.

SPAN 4317 CHICANO LITERATURE (3-0) Mexican-American literature, with special attention to its social, cultural, and linguistic background. Also listed as MAS 4317 or SPAN 4317; credit will be given for MAS 4317 or SPAN 4317 but not both in a given semester. Prerequisite: SPAN 3315 with a grade of C or better.

SPAN 4318 MEXICAN LITERATURE (3-0) Studies in Mexican fiction, poetry, drama, and literary essay. Listed as MAS 4318 or SPAN 4318; credit will be given for MAS 4318 or SPAN 4318 but not both in a given semester. Prerequisite: SPAN 3315 with a grade of C or better.

SPAN 4327 WOMEN IN HISPANIC LITERATURE (3-0) Considers women as characters in and writers of Hispanic literature. Includes the analysis of themes, language, and how the writings of women often give voice to lesser known aspects of culture. Offered as SPAN 4327, MAS 4327, and WOMS 4327; credit will be granted only once. Prerequisite: SPAN 3315 with a grade of C or better.

SPAN 4330 TOPICS IN SPANISH LINGUISTICS (3-0) Topics may include: Spanish phonetics and phonology, morphology, syntax, semantics,

lexicography, history of the Spanish language, Old Spanish, Spanish sociolinguistics, as well as the application of any theoretical approach to the study of the Spanish language, excluding the study of either peninsular or American Spanish dialectology. May be repeated for credit when content changes. Prerequisite: SPAN 3319 with a grade of C or better.

SPAN 4332 TOPICS IN SPANISH DIALECTOLOGY (3-0) Topics may include: Modern peninsular Spanish dialectology, modern Spanish-American dialectology, Old Spanish dialectology, early American Spanish dialectology, as well as a detailed study of any one dialect or regional dialect of Spanish from either a synchronic or a diachronic perspective. Emphasis may be given to phonetics, phonology, morphology, syntax, semantics, or lexicon, as applied to the study of peninsular or American Spanish dialectology. May be repeated for credit when content changes. Prerequisite: SPAN 3319 with a grade of C or better.

SPAN 4334 CULTURE AND ECONOMIC GLOBALIZATION IN THE HISPANIC WORLD (3-0) An introduction to social, political and economic structures in Spain and Latin America, with special emphasis on current events affecting the business world. Prerequisite: SPAN 3315 with a grade of C or better. Exclusively for International Business Spanish students.

SPAN 4335 BUSINESS SPANISH (3-0) An introduction to business terminology, skills needed for writing business letters, conducting telephone conversations, commercial transactions, and international procedures. Operational and strategic issues involved in interaction with Hispanic firms and markets; international trade; competitive, vendor-customer, and collaborative relations. Prerequisite: SPAN 3315 with a grade of C or better. Exclusively for International Business Spanish students.

SPAN 4339 THE ACQUISITION OF SPANISH (3-0) Topics, methods, and techniques specific to the teaching of the Spanish language. Prerequisite: SPAN 3319 with a grade of C or better.

SPAN 4341 BUSINESS AND LEGAL TRANSLATION (3-0) An advanced course in translation with a focus on business and legal texts. Students deepen their knowledge of translation theory and are trained to build and consolidate their skills in specialized translation. May be taken concurrently with SPAN 4342. Prerequisite: SPAN 3340 with a grade of B or better. SPAN 4341 cannot be applied toward the B.A. in Spanish, but can be taken as a Liberal Arts elective.

SPAN 4342 MEDICAL, SCIENTIFIC & TECH TRANSLATION (3-0) An advanced course in translation with a focus on medical, scientific and technical translation. Students deepen their knowledge of translation theory and are trained to build and consolidate their skills in specialized translation. May be taken concurrently with SPAN 4341. Prerequisite: SPAN 3340 with a grade of B or better. SPAN 4342 cannot be applied toward the B.A. in Spanish, but can be taken as a Liberal Arts elective.

SPAN 4391 CONFERENCE COURSE (3-0) Independent study in the preparation of a paper on a research topic; consultation with

instructor on a regular basis. May be repeated for credit. Prerequisite: two 3000 level courses and permission of the instructor.

SPAN 4393 SPANISH INTERNSHIP (3-0) A combination of field-related experience in the business or service sector with an academic component. Coursework may include journal writing in Spanish, outside readings, and formal presentations. Prerequisite: two 3000 level courses and permission of the instructor.

SPAN 4394 HONORS THESIS / SENIOR PROJECT (3-0) Required of all students in the University Honors College. During the senior year, the student must complete a thesis or a project under the direction of a faculty member in the major department. May not be repeated for credit. Prerequisite: two 3000 level courses and permission of the instructor.

SPEC 3300 TOPICS COURSE (3-0)

SPEC 3301 TOPICS COURSE (3-0)

SPEC 4300 CROSS REG-DEC (3-0)

SPEC 4301 TOPICS COURSE (3-0)

STATS 1308 ELEMENTARY STATISTICAL ANALYSIS (3-0) Descriptive statistics, relationships between variables, interpretation of data and graphs, rudiments of probability, elementary statistical models, hypothesis testing, inference, and estimation. The Math Aptitude Test (MAT) is required to register for this course. See http://www.uta.edu/math/pages/main/mpt.htm for test details.

STATS 3302 MULTIVARIATE STATISTICAL METHODS (3-0) Topics in multivariate data analysis with applications in various areas of interest, including multiple regression, analysis of experimental designs, covariate adjustment, non-linear regression and the use of standard multivariate statistical packages. Prerequisite: MATH 3316 or consent of instructor.

STATS 3313 INTRODUCTION TO PROBABILITY (3-0) Basic concepts in probability, random variables, probability distributions, functions of random variables, moment generating functions, central limit theorem and its role in statistics, joint probability functions and joint probability density functions, joint cumulative distribution functions, conditional and marginal probability distributions, covariance and correlation coefficients, transformation and order statistics. Prerequisite: MATH 2326.

STATS 3316 STATISTICAL INFERENCE (3-0) A comprehensive study of basic statistical methods. Topics include descriptive statistics, numeracy, report writing, basic probability, experimental design and analysis. Prerequisite: C or better in MATH 1302 and 1308 or permission of the Math Department.

STATS 4313 APPLICATIONS OF MATHEMATICAL STATISTICS (3-0) A continuation of MATH 3313. Sampling distributions, estimation of parameters, confidence intervals, testing of hypotheses, linear regression, linear time series models, moving average, autoregressive and/or

autoregressive integrated moving average (ARIMA) models, estimation, data analysis and forecasting with time series models and forecast errors and confidence intervals. Prerequisite: C or better in MATH 3313 or STATS 3313.

THEA 0181 THEATRE PRACTICUM (4-0) Open to all students interested in participating in dramatic productions on-stage, backstage, or front of house. Considers aspects of play production which may include scenery construction, publicity, costumes, and lighting. Practicum students participate in auditions and are assigned to production crews. May be repeated for credit. All Theatre Arts majors register for 0181 each semester.

THEA 0281 TECHNICAL PRODUCTION PRACTICUM (8-0) Considers aspects of technical production that may include but is not limited to the creation of scenery, costumes, lighting, and sound for stage productions. Students are assigned to production crews. May be repeated for credit. Open to BFA Technical Production Focus students only.

THEA 1101 THEATRE ARTS SYMPOSIUM (1-0) An orientation to academic and professional theatre skills and resources.

THEA 1302 VOCAL FUNDAMENTALS (3-0) Introduction to the fundamentals of vocal production for the stage and oral communication skills in presentations, including interaction in the classroom setting to meet the needs of course work. Emphasis on relaxation, breathing techniques, the creation of vocal sound, the interconnection of voice and body, and the use of acceptable grammar and pronunciation in formal presentations. Credit for THEA 1302 will not be granted to B.F.A. students in the performance option.

THEA 1303 PERFORMANCE FUNDAMENTALS I: VOICE (3-0) The use and training of the speaking voice for performance. Provides the student with a system of vocal improvement through interactive exercises designed to teach acceptable grammar and pronunciation in formal presentation. Includes specialized techniques of vocal production, physical relaxation and the interconnection of voice and body. Prerequisite: permission of faculty.

THEA 1304 STAGECRAFT I (2-4) An introduction to all areas of theatre craft, technology, and production. The development and application of technical skills, production organization, and an orientation to production facilities, equipment, and materials. Service on crews for productions as required.

THEA 1305 INTRODUCTION TO THEATRICAL DESIGN (3-0) Fundamentals of design elements, theory and practice as applied to costume, scenic, properties, lighting, and sound design.

THEA 1307 ACTING I: BASIC TECHNIQUES (3-0) Study and exercise in fundamentals of the actor's craft utilizing the Stanislavsky Method. Emphasis on the development of basic acting techniques including: characterization, objectives, beats, action, and script analysis. Performance requirements include improvisation, monologues, and scene study. Attendance

at productions outside of the classroom may be required. Prerequisite: Permission of instructor.

THEA 1342 THEATRE AND FILM APPRECIATION (3-0) Develops awareness of and appreciation for dramatic art as reflected in theatre and film. Designed to increase the student's enjoyment and knowledge of drama and its historical, social and cultural contexts. Students may be required to attend plays. Open to all students as a Fine Arts elective; Theatre Arts BFA and BA majors and minors may not use this course in place of THEA 1343.

THEA 1343 INTRODUCTION TO THEATRE (3-0) Acquaints the student with major phases of theatrical activity and production research. Considers the duties and contributions of director, actor, scene designer, costumer, and others involved in play production. Students may be required to attend and review productions.

THEA 2306 THE CRAFT OF COSTUME (2-4) Introduction to the process and application of the fundamental skills of costuming and costume design preparation methods. Prerequisite: permission of faculty.

THEA 2337 IMPROVISATION (3-0) The study of modern improvisational skills and techniques for the performer, director, playwright, and instructor. Prerequisite: Permission of instructor.

THEA 2352 ACTING II: SCENE STUDY (2-4) Acting technique exercise to enhance and develop acting skills through scene study. Methods of characterization, research, and role preparation. Prerequisite: THEA 1303, 1307, and permission of instructor.

THEA 3300 DIRECTING I (2-4) The techniques of staging plays. Play interpretation, casting, rehearsal procedure, staging, and the role of the director in character analysis and creation. Prerequisite: THEA 1303, 1304, 1305, 1307, 1343, 2352, 3309 and permission of faculty.

THEA 3301 SCENE DESIGN I (2-4) History, theory, and basic concepts of design methods with application for stage, television, and film. Aesthetic skills of color, line, texture, and form, and the interactions of these elements. Mechanics and techniques of illustration and rendering of design ideas. Prerequisites: THEA 1304, 1305, 1343, 3304, 3309 and permission of faculty.

THEA 3302 FILM STUDIES (2-4) Principles of film study, including history, genre, aesthetics, theory, and criticism of U.S. and international films. Lecture and discussion, with lab devoted to the screening of selected films.

THEA 3303 SOUND DESIGN AND TECHNOLOGY (3-0) A study of the fundamentals of sound design as related to the theatrical production environment. The study of basic sound design tools and the practical application of these tools through project work. Prerequisites: THEA 1304, 1305, 1343, 3304, 3309 and permission of faculty.

THEA 3304 STAGECRAFT II (2-4) An advanced examination of theatre craft, technology, and production including mechanical and CAD drafting for the stage,

stage machinery, and safe working practices in the theatre. Prerequisite: THEA 1304 and permission of faculty.

THEA 3305 LIGHTING DESIGN I (2-4) Basic design principles and techniques and their application. Theories and application of optical control and distribution. Service on light crews in productions as required. Prerequisites: THEA 1304, 1305, 1343, 3304, 3309 and permission of faculty.

THEA 3306 SCENE PAINTING FOR THE STAGE (2-4) Instructional and demonstrative approaches to scenic painting for the stage. Prerequisite: THEA 1304 and 1343, or permission of instructor.

THEA 3307 COSTUME HISTORY (3-0) Historical styles and trends of fashion to the present as applied to stage, television, and film.

THEA 3308 ACTING III: ACTING FOR THE CAMERA (3-0) An advanced acting course to acquire performance technique on camera. Previously taught as THEA 4308. Credit will be granted only once. Prerequisite: THEA 1303, 1307, 2352, and permission of instructor.

THEA 3309 SCRIPT ANALYSIS (3-0) An investigation of dramatic structure from the points of view of the director, actor and designer. Elements of dramatic theory are included.

THEA 3310 CREATIVE DRAMA (3-0) The theory and practice of creative dramatics exercises and activities. The application of the artistic elements in creative drama and interdisciplinary applications of creative drama activities. Prerequisite: THEA 1307, 1343, and permission of instructor.

THEA 3312 THEATRE FOR YOUNG AUDIENCES (3-0) The theory and practice of creating and producing plays for young audiences. Students shall be required to act in selected works. Prerequisite: THEA 1307, 1343, and permission of instructor.

THEA 3315 THEATRICAL MAKEUP (3-0) Types, styles, and techniques of make-up application for stage, television, and film. Prerequisite: permission of instructor.

THEA 3317 SINGING FOR THE ACTOR (3-0) An applied study of the vocal apparatus, vocal placement, the voice/body relationship, character, working with text, phrasing, and auditioning as they relate to singing in musical theatre for the Broadway or West End theatre. Emphasis is placed on integrating singing and acting skills. Prerequisites: THEA 1307, 2352 and permission of faculty. Same as offering MUSI 3317; may not be repeated and credit will only be granted in one department.

THEA 3320 PLAYWRITING (3-0) The art and craft of constructing a play. Students write playlets, scenes, and one-act plays for in-house performance and/or instructor evaluation. Prerequisite: THEA 3309 or permission of faculty.

THEA 3335 DANCE FOR THE ACTOR I (3-0) An introduction to dance styles and choreographic elements found in theatrical productions, and the applied use of dance and choreography to convey dramatic action and characterization. Open to Theatre Arts majors and minors only.

Prerequisite: THEA 1307, Theatre Arts major or minor, and permission of faculty.

THEA 3340 PERFORMANCE FUNDAMENTALS II : MOVEMENT (3-0) Development of movement techniques and movement performances. Freeing the body through exercises and experiences in relaxation, physical awareness, and movement through space. Focus on body awareness and the release of habitual patterns that restrict the body. Prerequisite: permission of faculty.

THEA 3341 ACTING IV: ADVANCED ACTING & PORTFOLIO (3-0) Advanced principles of character development. Emphasis on the development of a role through script, exercises, and character work. The development and presentation of an actor's portfolio in an audition context. Prerequisite: THEA 1303, 1307, 1343, 2352, 3309 and permission of faculty.

THEA 3346 STAGE COMBAT (3-0) Basic skills in hand-to-hand combat. Slapping, punching, kicking, and falling techniques. Prerequisite: permission of instructor.

THEA 3387 ART DIRECTION I (3-0) The history, theory, and basic concepts of art direction methods and basic construction techniques for television and film. Prerequisite: Permission of faculty.

THEA 4300 DIRECTING II (2-4) Continuation of THEA 3300. Students will direct scenes and/or one-act plays. Prerequisite: THEA 3300 and permission of instructor.

THEA 4301 ACTING V: PERIOD STYLES (2-4) Selected periods in classical theatre literature exploring acting styles through text, movement, and performance. Prerequisite: THEA 1303, 1307, 1343, 2352, 3309 and permission of faculty.

THEA 4302 STAGE MANAGEMENT AND THEATRE ADMINISTRATION (3-0) Managerial activities and responsibilities applicable to community or professional theatre. Prerequisite: THEA 1343 and permission of instructor.

THEA 4303 CLASSICAL THEATRE HISTORY (3-0) The development of world theatre from its beginnings through the Renaissance. Analysis of representative plays of each period with particular emphasis on drama in its historical context. History of acting, costuming, and directing. Prerequisite: THEA 1343 and permission of instructor.

THEA 4304 MODERN THEATRE HISTORY (3-0) The development of Western theatre from the Renaissance to the present. Analysis of representative plays from Europe, England, and America. Development of the modern stage, acting methods, and production techniques. Prerequisite: THEA 1343 and permission of instructor.

THEA 4305 SCENE DESIGN II (3-0) Continuation of THEA 3301. Distinctions among stage, television, and film design, interaction of one with another, advanced methods, and application of scene design concepts. Prerequisite: THEA 3301 and permission of instructor.

THEA 4306 LIGHTING DESIGN II (3-0) Specialized topics and advanced design

technique and application principles. Participation on light crews in departmental productions required. Prerequisite: THEA 3305 and permission of instructor.

THEA 4314 ADVANCED PRODUCTION TECHNIQUES (3-0) An advanced examination of theatre craft, technology, and production. Prerequisite: THEA 3304 and permission of instructor.

THEA 4315 SPECIAL EFFECTS MAKEUP DESIGN (3-0) The examination of styles and techniques of specialty makeup applications for the stage and how these relate to television and film. Prerequisite: THEA 3315 and permission of instructor.

THEA 4320 STAGE WELDING, RIGGING, AND FABRICATION (3-0) Styles and techniques of welding, rigging, and specialized materials fabrication for the stage and in video and film production. Prerequisite: THEA 1304 and permission of instructor.

THEA 4330 U.S. THEATRE HISTORY (3-0) The evolution of theatre in the United States from its beginning in colonial times to the present day. Representative plays from various periods are studied. Prerequisite: THEA 1343 and permission of instructor.

THEA 4342 THEATRE STUDIES RESEARCH (3-0) Studies in theatre research culminating in written and/or presentational work, depending upon the student's area of interest. Only senior standing students in the B.F.A. Theatre Studies subplan may enroll. Prerequisite: 1101, 1303, 1304, 1307, 1343, 1305, 2306, 2352, 3309 and permission of instructor.

THEA 4343 COSTUME DESIGN (2-4) Theory and practice of costume design and application of those principles to theatrical production. Prerequisite: THEA 1305, 3309, and permission of faculty.

THEA 4344 ADVANCED DESIGN AND PORTFOLIO (3-0) Studies in advanced design or technical production projects, depending upon the student's declared focus area, portfolio preparation, and portfolio presentation. Prerequisites: THEA 1303, 2306, 3301, 3303, 3304, 3305, 3315, and 4343 for BFA Design Focus students, or THEA 4314 for BFA Technical Production Focus students, and permission of instructor.

THEA 4345 SUMMER THEATRE ACTIVITIES (2-4) The study and application of specialized production and performance activities in a summer repertory theatre setting.

THEA 4387 ART DIRECTION II (2-4) An applied course in art direction methods, construction practices and techniques in video and film production. Prerequisite: Permission of faculty.

THEA 4391 CONFERENCE COURSE (3-0) Topics assigned on an individual basis covering individual research or study in a designated area. May be repeated as the topic changes. Prerequisite: permission of instructor.

THEA 4393 SPECIAL TOPICS (3-0) Special studies in drama and theatre. Topic varies from semester to semester. May be repeated as topic changes or until a

maximum of six credit hours is attained. Prerequisite: permission of instructor.

THEA 4394 HONORS THESIS/SENIOR PROJECT (3-0) Required of all students in the University Honors College. During the senior year, the student must complete a thesis or project of equivalent difficulty under the direction of a faculty member in the major department.

THEA 4395 THEATRE INTERNSHIP LEVEL I (3-0) Individual research through working with a professional theatre or performing arts organization. Individual conference to be arranged. Prerequisites: Theatre Arts major with permission of instructor and department chair. Graded on a pass/fail basis.

THEA 4695 THEATRE INTERNSHIP LEVEL 2 (6-0) Individual research through working with a professional theatre or performing arts organization. Individual conference between sponsor and departmental advisor required. Prerequisites: Theatre Arts major with permission of instructor and department chair. Graded on a pass/fail basis.

THEA 4995 THEATRE INTERNSHIP LEVEL 3 (9-0) Individual research through working with a professional theatre or performing arts organization. Individual conference between sponsor and departmental advisor required. Prerequisites: Theatre Arts major with permission of instructor and department chair. Graded on a pass/fail basis.

TRAN 1000 Transfer (0-0)

TRAN 2000 Transfer (0-0)

TRAN 3000 Transfer (0-0)

TRAN 4000 Transfer (0-0)

UNIV 1131 ISSUES IN COLLEGE ADJUSTMENT (1-0) Faculty, staff and Peer Academic Leaders in group discussion will communicate academic survival information, analyze potential academic and social problems, and assist in implementing individualized corrective measures. Special sections for Maverick Scholars Freshman Interest Groups, students on probation, students exploring majors, and student athletes will require permission to register. Elective only; does not count as a part of the professional certification requirements. Pass-fail grades will be awarded. For entering freshmen or entering transfer students.

UNIV 1301 UNIVERSITY FIRST YEAR SEMINAR (3-0) Seminar taught by faculty across campus on a topic of interest or professional development. Within the framework of research-based content, students will learn foundational skills that will assist them in developing critical thinking, self-management, and study skills as well as their transition to UT Arlington.

UNIV 1302 COLLEGE LEARNING (3-0) An introduction to the learning strategies and behaviors necessary for academic success in academic programs and in personal and career development. Focus is on self-assessment, self-regulation, and employing cognitive and psychological theories and strategies for self-change. Students complete a self-change project

based on theories and models of behavior modification. Gateway Advantage students are required to enroll in this course during their first semester.

UNIV 3335 PEER ACADEMIC LEADER TRAINING (3-0) To train students to be peer counselors who will work as group leaders in UNIV 1131 during the Fall Semester. Group counseling procedures and requisite guidance material to explain academic regulations and student services, analyze deficient study skills, initiate appropriate study habits, and make referrals when necessary. Only pass/fail grades will be awarded. Elective credit; does not count as part of the professional education certification requirements. Prerequisite: permission of instructor.

URPA 1301 INTRO URB LIFE (3-0)

URPA 3301 THE METROPLEX (3-0)

URPA 4305 FOUNDATIONS OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY (3-0) The organization, structure and practice of environmental protection at the federal, state and local levels of government. Course will develop a full understanding of how the goals of protecting human health and the environment are achieved through the implementation of environmental law, policy, practice, enforcement and collaboration among governmental entities, industry, environmental groups and the general public. Wide ranging use of case studies will be made and full engagement in new developments in the era of climate change will be achieved.

URPA 4391 CONFERENCE (3-0)

WOMS 2307 WOMEN IN THE ANCIENT WORLD (3-0) Exploration of roles and images of women in ancient Greece and Rome, using a variety of primary (ancient) sources: literature, legal and medical texts, visual art, and inscriptions. Offered as CLAS 2307 and WOMS 2307. Credit will be granted only once.

WOMS 2310 INTRODUCTION TO WOMEN'S STUDIES (3-0) Focuses on Women's Studies as a reconstruction of knowledge. Places women's experience at the center of inquiry, examining topics such as work, family, reproduction, sexual orientation, politics, and creativity. Explains the diversity of methods and theories employed in Women's Studies scholarship, emphasizing the intersection of gender, race, ethnicity, and class.

WOMS 2317 BASIC CONCEPTS IN HUMAN SEXUALITY (3-0) The physiological, psychological, and sociological aspects of human sexuality. Offered as BIOL 2317, HEED 2317, PSYC 2317, and WOMS 2317. Credit will be granted for one of these courses only. Students seeking certification in Health Education must enroll in HEED 2317. Students seeking credit toward their science requirement must enroll in BIOL 2317. May not be used for biology grade point calculation or biology credit toward a BS degree in biology, microbiology, medical technology, psychology, or sociology.

WOMS 3305 WOMEN'S HEALTH ISSUES (3-0) Will address specific issues of importance to women and their health, including growth and development,

nutrition, reproductive health, pregnancy, chronic diseases, and relationship/family issues. Offered as HEED 3305 and WOMS 3305. Credit will be granted only once.

WOMS 3309 WOMEN AND WORK, 1600 TO THE PRESENT (3-0) Examines the history of women and work, both waged and nonwaged, in Europe and the Americas, including the United States. Highlights differences within women's work cultures as well as variation in women's employment opportunities and their efforts to achieve equality with men in the workplace, by ethnicity, region, and nation. Offered as HIST 3309 and WOMS 3309; credit will be granted only once.

WOMS 3310 U.S. WOMEN'S HISTORY TO 1860 (3-0) Women in politics, work and society from the colonial era to the Civil War. Women's efforts to reform society, including the abolition of slavery and acquisition of suffrage. Offered as HIST 3310 and WOMS 3310; credit will be granted only once.

WOMS 3311 U.S. WOMEN'S HISTORY 1860 TO PRESENT (3-0) American women in politics, work and society since 1860, focusing on race and class and women's struggles for rights and liberation. Offered as HIST 3311 and WOMS 3311; credit will be granted only once.

WOMS 3328 MARITAL AND SEXUAL LIFESTYLES (3-0) Contemporary American lifestyles selected from: singles, traditional marriage, homosexuals, single-parent families, open marriage, non-marital sexuality, cohabitation, dual-career marriage, childless couples, egalitarian marriage, families in later life. Offered as SOCI 3328 and WOMS 3328; credit will be granted only once.

WOMS 3331 SOCIOLOGY OF THE FAMILY (3-0) The family's role in American society and in other cultures past, present, and future. Family research methods, comparative family systems, child development/parenting, culture and personality, minority families, social class variation in families, work and family. Prerequisite: sophomore standing or permission of the instructor. Offered as SOCI 3331 and WOMS 3331; credit will be granted only once.

WOMS 3334 GENDER ROLES (3-0) Theories of gender role socialization and change in female and male roles. Impact of biology, psychology, and socialization on gender role development. How we learn gender in various social contexts including the family, education, and the peer group. Offered as SOCI 3334 and WOMS 3334; credit will be granted only once.

WOMS 3356 WOMEN, WORK AND SOCIAL CHANGE (3-0) Women's work experiences, how these experiences are changing, and relationship between paid employment and non-wage household labor. Paid and unpaid work experiences are empirically examined in terms of a variety of theoretical perspectives. Offered as SOCI 3356 and WOMS 3356; credit will be granted only once.

WOMS 3366 SEX, GENDER, AND CULTURE (3-0) The ways gender and sexuality are culturally constructed. Readings include ethnographies, life histories, and fiction.

Debates within anthropology and within specific cultures over maleness and femaleness. Offered as ANTH 3366 and WOMS 3366; credit will be granted only once.

WOMS 3370 WOMEN IN LITERATURE (3-0) Works by women writers and/or images of women in literature. May be repeated for credit as subject matter changes. Offered as ENGL 3370 and WOMS 3370; credit will be granted in only one department.

WOMS 3385 WOMEN AND CRIME (3-0) This course examines criminology and criminal justice issues as they relate specifically to women. The three major areas of coverage include (1) women and girls as victims of crime, (2) women and girls as criminal offenders; and (3) women working in the criminal justice system. Offered as CRCJ 3385 and WOMS 3385; credit will be granted only once.

WOMS 4190 CONFERENCE COURSE IN WOMEN'S STUDIES (1-0) Independent study for the advanced undergraduate. A close examination of a chosen topic through research and/or reading; format designed by instructor and student. May be repeated for credit when the subject matter varies, but only with permission of director of Women's Studies Program.

WOMS 4290 CONFERENCE COURSE (2-0) Independent study for the advanced undergraduate. A close examination of a chosen topic through research and/or reading; format designed by instructor and student. May be repeated for credit when the subject matter varies, but only with permission of director of Women's Studies Program.

WOMS 4301 ART AND GENDER (3-0) Approaches to the interpretation of art from the stance of gender and feminism. Emphasis is placed on the work of significant female artists and on the gendered representations of art. Offered as ART 4301 and WOMS 4301; credit will be granted only once. Fulfills the Social/Cultural Studies requirement. Prerequisite: ART 1309 and ART 1310.

WOMS 4303 WOMEN IN SOCIETY (3-0) Women's status in contemporary American society, including the family, workplace, and politics. Women's status will also be examined in historical and crosscultural perspectives. Offered as SOCI 4303 and WOMS 4303; credit will be granted only once.

WOMS 4316 WOMEN IN THE POLITICAL PROCESS (3-0) This course introduces students to the unique experiences of women in the political process, the impact of these experiences on the political system, and theories of gender and politics. Offered as POLS 4316 and WOMS 4316; credit will be granted only once.

WOMS 4318 LANGUAGE AND GENDER (3-0) The role of language in the expression and creation of gender identities. Gender differences in language structure and use, women's and men's language in other cultures, the acquisition of gendered ways of speaking, and sexism in language. Offered as LING 4318 and WOMS 4318; formerly offered as LING 4392/WOMS 4392; credit will be granted only once. Prerequisite: LING 3311.

WOMS 4323 FEMINIST POLITICAL THOUGHT (3-0) Issues raised by the feminist critique of political theory; the exclusion of women from the political sphere until the 20th century; Marxist, liberal, and radical feminist political thought; alternative feminist conceptions of the political. Offered as POLS 4323 and WOMS 4323; credit will be granted only once..

WOMS 4325 WOMEN IN SCIENCE (3-0) Explores the role of women in science. Emphasis on gender and science, the history of women in science, gender equity in the classroom, strategies for the retention of women scientists, the current culture/climate for women in science, and contemporary women in science. Offered as EDUC 4325, SCIE 4325, and WOMS 4325. Credit will be granted only once.

WOMS 4327 WOMEN IN HISPANIC LITERATURE (3-0) Considers women as characters in and writers of Hispanic literature. Includes the analysis of themes, language, and how the writings of women often give voice to lesser known aspects of culture. Offered as SPAN 4327, MAS 4327, and WOMS 4327; credit will be granted only once. Prerequisite: SPAN 3315 with a grade of C or better.

WOMS 4340 LITERATURE BY WOMEN (3-0) Focus on women's writing in a particular genre or historical period or on a concept or issue of importance to women writers. May be repeated for credit as subject matter changes. Offered as ENGL 4340 and WOMS 4340; credit will be granted in only one department

WOMS 4390 CONFERENCE COURSE (3-0) Independent study for the advanced undergraduate. A close examination of a chosen topic through research and/or reading; format designed by instructor and student. May be repeated for credit when the subject matter varies, but only with permission of director of Women's Studies Program.

WOMS 4392 SPECIAL TOPICS IN WOMEN'S STUDIES (3-0) Special topics of interest in the discipline of Women's Studies. May be repeated for credit when the topic changes.

Faculty

A

- ABOLMAALI, ALI, Professor of Civil Engineering (2001). B.S., University of Oklahoma, 1980; M.S., 1984; Ph.D., 1999. Professional Engineer.
- ACKER, BERTIE N., Professor Emeritus of Modern Languages (1965). B.A., Texas Woman's University, 1943; M.A., Southern Methodist University, 1957; Ph.D., The University of Texas at Austin, 1971.
- ADAM, THOMAS, Associate Professor of History (2001). M.A., University of Leipzig, 1994; Ph.D., 1998.
- ADEGBOLA, MAXINE, Assistant Professor in Nursing (2008) BSN Hunter College 1983; MSN 1985; PhD The University of Texas at Arlington, 2008. Registered Nurse.
- AGGER, BEN, Professor of Sociology (1994). B.A., York University, 1973; M.A., 1974; Ph.D., University of Toronto, 1976.
- AGONAFER, DEREJE, Professor in Mechanical and Aerospace Engineering (1999). B.S., University of Colorado, 1972; M.S., Howard University, 1978; Ph.D., 1984.
- AGUILAR, DOLORES, Clinical Instructor in Nursing (1998). B.S.N., University of North Carolina-Greensboro, 1983; M.S., University of North Carolina-Chapel Hill, 1987. Registered Nurse.
- AGUIRRE, REGINA P.T, Assistant Professor of Social Work (2006). B.S.W., The University of Texas at Austin, 1998; B.A., 1999; M.S.S.W., 2000; Ph.D., Louisiana State University, 2006.
- AHMAD, ISHFAQ, Professor in Computer Science and Engineering (2002). B.Sc., University of Engineering and Technology, 1984; M.S., Syracuse University, 1987; Ph.D., 1992.
- AKTOSUN, TUNCAY, Professor of Mathematics (2005). B.S., Middle East Technical University, Ankara, Turkey, 1978; M.S., Indiana University, 1981; Ph.D., 1986.
- ALAIMO, STACY, Associate Professor of English (1994). B.A., Gustavus Adolphus College, 1985; M.A., University of Wisconsin, 1986; Ph.D., University of Illinois, 1994.
- ALAVI, KAMBIZ, Professor in Electrical Engineering (1988). B.S., Massachusetts Institute of Technology, 1972; M.S., 1977; Ph.D., 1981.
- ALFARO, OVIDIO, Assistant Professor of Military Science (1996). B.S., U.S. Military Academy, 1991.
- ALLEN, JANE, Clinical Instructor in Nursing (2009) BSN Texas Woman's University, 1980; MSN 1995; Registered Nurse.
- AMACHER, RYAN C., Professor of Economics (1992). A.B., Ripon College, 1967; Ph.D., University of Virginia, 1971.
- AMBARTSOUMIAN, GAIK, Assistant Professor of Mathematics (2006). Diploma, Obninsk Institute of Nuclear Power Engineering, Russia, 2001; Ph.D., Texas A&M University, 2006.
- ANDERSON, ANDY, Professor of Art and Art History (1991). B.A., Florida State University, 1968; M.A., 1971.
- ANDERSON, CHERYL, Associate Professor in Nursing (1991). B.S.N., San Diego State University, 1974; M.N., University of California at Los Angeles, 1976; Ph.D., Texas Woman's University, 1985. Registered Nurse.
- ANDERSON, DALE A., Professor Emeritus of Aerospace Engineering (1984). B.S., Saint Louis University, 1957; M.S., Iowa State University,

1959; Ph.D., 1964. Professional Engineer.

- ANDERSON, MARVIN, Lecturer in Management (2006). B.S., Union College, 1965; M.B.A., Athens State University, 1969; D.B.A., Western Colorado University, 1976.
- ANDRESEN, EARL, Professor of Communication (1991). A.B., Columbia College, 1969; A.M., University of Illinois, 1972; Ph.D., Texas A&M University, 1988.
- ANDREWS, CARLY, Lecturer in Accounting (2004). B.B.A., Baylor University, 1997; M.B.A., The University of Texas at Arlington, 2000. CPA, CIA.
- ANJOMANI, ARDESHIR, Professor of Urban Affairs (1979). M.Arch., University of Tehran, Iran, 1968; M.Planning, University of Southern California, 1976; Ph.D., 1979.
- APILADO, VINCENT P., Professor of Finance and Real Estate (1980). B.S., University of Portland, 1959; M.B.A., University of Oregon, 1966; Ph.D., University of Michigan, 1970.
- ARCÉ, WILLIAM., Assistant Professor of English (2008). B.A., University of California at Berkeley, 1997; M.A., University of Southern California, 2001; Ph. D., 2009.
- ARDEKANI, SIAMAK A., Professor of Civil Engineering (1989). B.S., The University of Texas at Austin, 1980; M.S., 1981; Ph.D., 1984. Professional Engineer.
- ARMANIOS, ERIAN A., Professor and Chair of Mechanical and Aerospace Engineering (2009). B.S., University of Cairo, 1974; M.S., 1979; Ph.D., Georgia Institute of Technology, 1985.
- ARMSTRONG, DANIEL W., Robert A. Welch Professor of Chemistry (2006). B.Sc., Washington & Lee University, 1972; M.S., Texas A&M University, 1974, Ph.D., 1977.
- ARNOTT, HOWARD J., Dean Emeritus and Jenkins Garrett Professor of Biology (1974). A.B., University of Southern California, 1952; M.S., 1953; Ph.D., University of California at Berkeley, 1958.
- ARROWOOD, DANA, Clinical Assistant Professor of Curriculum and Instruction (2005). B.S.E., Henderson State University, 1982; M.S.E., 1987; Ph.D., University of North Texas, 2000.
- ARVIDSON, ENID, Associate Professor of Urban Affairs (1995). B.A., University of California at Santa Barbara, 1979; M.R.P., University of Massachusetts, 1985; Ph.D., 1996.
- ASHE, MARY JANE, Assistant Director, College of Nursing Undergraduate Student Services (2004). B.S.N., D'Youville College, 1974; M.N., University of Iowa, 1977. Registered Nurse.
- ASHWILL, JEAN, Assistant Dean, College of Nursing Undergraduate Student Services (1996). B.S.N., The University of Texas at Arlington, 1980; M.S.N., 1982. Registered Nurse.
- ASWATH, PRANESH B., Professor in Mechanical Engineering and Materials Science and Engineering (1990). B.S., St. Joseph's College, Bangalore University, 1982; B.E., Indian Institute of Science, Bangalore, India, 1985; M.S., Brown University, 1987; Ph.D., 1990.
- ATHA-WELDON, CINDY S., Adjunct Professor of Psychology (2001). B.A., The University of Texas at Arlington, 1996; M.S., Texas Christian University, 2001.
- ATHITSOS, VASSILIS, Assistant Professor in Computer Science and Engineering (2007). B.S., University of Chicago, 1995; M.Sc., 1997; Ph.D., Boston University, 2006.

- ATWOOD, PATRICIA B., Adjunct Professor of Psychology (2003). B.A., The University of Texas at Arlington, 1990; Ph.D., Texas Woman's University, 2001.
- AUSBROOKS, CARRIE Y., Associate Professor of Educational Leadership and Policy Studies (2003). B.B.A., University of North Texas, 1983; M.Ed., 1984; Ph.D., 1996.
- AUSTIN, AMY, Assistant Professor of Modern Languages (2007). B.A., University of Kansas, 1997; Ph.D., Emory University, 2004.
- AUTRY, MARY M., Assistant Professor of Curriculum and Instruction (2005). B.A., The University of Texas at Austin, 1987; Ph.D., Indiana University, 2003.

B

- BACCHUS, DONNA, Clinical Instructor in Nursing (2005). B.S.N., University of Ottawa, 1980; M.S.N., The University of Texas Health Science Center, 1993. Texas A&M Post Masters FNP Program. 1980. Registered Nurse.
- BADON, MICHELLE, Lecturer in Biology (2002). B.S., Tougaloo College, 1989; M.S., Mississippi State University, 1992; Ph.D., 1995.
- BAIRD, BECKY, Clinical Instructor in Nursing/Staff Development Specialist (2005). B.S., Angelo State University, 1980; M.S., East Texas State University, 1985; B.S.N., Baylor University, 1990; M.S., Texas Woman's University, 1995. Registered Nurse.
- BAIRD, CHARDIE L., Assistant Professor of Sociology (2005). B.S., College of Charleston, 1996; M.S., Florida State University, 2000; Ph.D., 2005.
- BAKER, HARVY L., JR., Lecturer in Mathematics (1986). B.A., The University of Texas at Austin, 1960; Ph.D., 1965.
- BAKER, LEWIS T., Associate Professor of Humanities (1985). B.A., The University of Texas at Austin, 1975; M.A., Louisiana State University, 1977; Ph.D., 1981.
- BAKER, R.C., Professor and Chair of the Department of Information Systems and Operations Management (1972). B.A., The University of Texas at Austin, 1964; Ph.D., Texas A&M University, 1971.
- BAKER, SUSAN GONZALEZ, Associate Professor of Sociology, Director of Center for Mexican American Studies (2005). B.A., Trinity University, 1983; M.A., University of California at Berkeley, 1986; Ph.D., The University of Texas at Austin, 1989.
- BAKER, VICKI, Assistant Professor of Music (2006). B.A., Texas A&M University at Corpus Christi, 1986; M.A., Texas Woman's University, 2002; Ph.D. Texas Tech University, 2005.
- BAKER, W. A., Professor Emeritus of Chemistry (1971). B.S., Texas A&I University, 1955; Ph.D., The University of Texas at Austin, 1959.
- BALDWIN, JANICE, Senior Lecturer in Management (2006). B.B.A., Texas Tech University, 1974; M.B.A., The University of Texas at Arlington, 1979; Ph.D., University of North Texas, 1984; J.D., Southern Methodist University, 1989.
- BANNISTER, MARIE, Adjunct Professor of Psychology (1996). B.A., The University of Texas at Dallas; 1984; Ph.D., The University of Texas Southwestern Medical Center at Dallas, 1995.
- BARASCH, LINDA, Senior Lecturer in Computer Science and Engineering (1998). B.S., Duke University, 1980; M.S., New York University, 1982; Ph.D., University of California, 1988.

- BARRETT, EDITH J., Professor of Urban Affairs (1996). B.S., Baylor University, 1981; M.S., Northwestern University, 1984; Ph.D., 1987.
- BARRETT, MARJIE C., Associate Professor of Social Work (1978). B.A., Texas Christian University, 1959; M.S.S.W., The University of Texas at Austin, 1962; Ph.D., Texas Woman's University, 1978.
- BASCO, MONICA, Assistant Professor of Psychology (2007). B.A., University of Southern California, Los Angeles, 1979; M.A., 1984; Ph.D., 1987.
- BASHAM, MATT, Assistant Professor of Educational Leadership and Policy Studies (2007). B.A., Oakland University, 1990; M.A.M.C., University of Florida, 1993; Ph. D., 2004.
- BASHAM, RANDALL, Associate Professor of Social Work (2002). B.A., West Liberty State College, 1977; M.S.W., West Virginia University, 1981; Ph.D., University of Tennessee, 2002.
- Bass, Ogden I., Lecturer in Landscape Architecture (1996). B.S., Texas A&M University, 1979; M.U.P., 1981; M.S., 1986.
- BASTIEN, JOSEPH W., Professor of Anthropology (1977). B.A., Maryknoll College, 1958; M.E., State University of New York, 1963; M.D., 1963; M.A., Cornell University, 1971; Ph.D., 1973.
- BATES, SYLVIA, Clinical Instructor in Nursing (2004). B.S.N., City University of New York, 1977; M.Ed., Columbia University, 1981. Registered Nurse.
- BAUM, ANDREW, Professor of Psychology (2006). B.S., University of Pittsburgh, 1970; Ph.D., State University of New York at Stony Brook, 1974.
- BAUM, EDWARD M., Professor of Architecture (1987). A.B., Harvard College, 1960; M.Arch., Harvard University, 1964. Registered Architect.
- BEAMON, KRYSTAL K., Assistant Professor of Sociology (2008). B.S., Oklahoma State University, 1999; M.S., 2001; Ph.D. 2005.
- BEHAN, DEBORAH, Assistant Clinical Professor in Nursing (1999). B.S.N., Southwestern Missouri State University, 1993; M.S., University of Oklahoma, 1996; Ph.D., Texas Woman's University 2010. Registered Nurse.
- BEHBEHANI, KHOSROW, Professor and Director of the Biomedical Engineering Program (1985). B.S., Louisiana State University, 1973; M.S., Georgia Institute of Technology, 1975; Ph.D., University of Toledo, 1979.
- BELL, MYRTLE, Associate Professor of Management (1996). B.B.A., University of Notre Dame, 1981; M.B.A., Louisiana State University, 1982; Ph.D., The University of Texas at Arlington, 1996.
- BELLION, EDWARD, Professor of Biochemistry and Associate Chair of the Department of Chemistry and Biochemistry (1970). B.Sc., University of Leeds, 1965; Ph.D., 1968.
- BENHAM, ANN H., Professor Emeritus of Chemistry (1960). B.S., University of Michigan, 1945; M.S., 1947.
- BENSON, GEORGE S., Assistant Professor of Management (2002). B.A., Washington and Lee University, 1992; M.B.A., Georgetown University, 1994; Ph.D., University of Southern California, 2001.
- BERNARD, DAVID G., Associate Professor of Biology (1995). B.S., Howard University, 1984; Ph.D.,

Howard University College of Medicine, 1992.

- BERNSTEIN, IRA H., Professor of Psychology (1964). B.A., University of Michigan, 1959; M.A., Vanderbilt University, 1961; Ph.D., 1963.
- BERRY, NIKKI, Clinical Instructor in Nursing, (2009). BS. University of North Texas, 1996; BSN, The University of Texas at Arlington, 2003; MSN, 2006. Registered Nurse.
- BERTRAM, NANCY, Clinical Instructor in Nursing (2004). B.S.N., Marycrest College, 1977; M.N., Loyola University, 1980. Registered Nurse.
- BETRAN, ESTHER, Assistant Professor of Biology (2003). B.A., Universitat Autonom de Barcelona, 1990; M.S., 1992; Ph.D., 1996.
- BILLO, RICHARD E., Professor of Industrial and Manufacturing Systems Engineering and of Computer Science and Engineering, and Associate Dean of Engineering Research (2005). B.A., West Virginia University, 1978; M.A., University of the Pacific, 1981; M.S., Arizona State University, 1986; Ph.D., 1989.
- BING, ROBERT L., III, Associate Professor of Criminology and Criminal Justice (1991). B.A., College of the Holy Cross, 1975; M.S., Florida State University, 1976; Ph.D., 1987.
- BITENC, SANDRA, Lecturer in Accounting (2005). B.S., University of Wisconsin-Stevens Point, 1977; M.S., University of WisconsinWhitewater, 1982.
- BLACK, BEVERLY, Professor and Director/MSSW Program of Social Work (2007). B.A., University of Wisconsin/Madison, 1975; M.S.W., University of Wisconsin/Madison, 1977; Ph.D., UT-Austin, 1989.
- BLACK, TRUMAN D., Professor of Physics (1965). B.S., University of Houston, 1959; M.A., Rice University, 1962; Ph.D., 1964.
- BLEVINS, JENNIFER S., Assistant Professor of Kinesiology (2005). B.S., Texas A&M University, 1992; M.A., East Tennessee State University, 1995; Ph.D., Virginia Polytechnic Institute and State University, 2000.
- BOARDMAN, BONNIE S., Senior Lecturer in Industrial and Manufacturing Systems Engineering (1999). B.S., University of Arkansas, 1991; M.S., Texas A&M University, 1992; Ph.D., University of Arkansas, 1997.
- BOGARD, RICKEY G., Associate Professor of Music (1990). B.M.Ed., University of Central Arkansas, 1977; M.M., Baylor University, 1978; D.M.A., University of North Texas, 1994.
- BOLES, REBECCA L., Assistant Professor of Architecture (2000). B.S., Texas Tech University, 1978; M.Arch., The University of Texas at Arlington, 1984; M.A., Columbia University, 1989. Registered Architect and Registered Interior Designer.
- BOSTON, ANGELA, D., Senior Lecturer in Management (2006). B.B.A., The University of Texas at Arlington, 1999; M.B.A., Amberton University, 2003.
- BOSWELL, BILL W., Associate Professor of Architecture (1975). B.Arch., The University of Texas at Austin, 1969; M.Arch and Urban Design, University of Colorado, 1972. Registered Architect.
- BOULWARE, BEVERLY, Assistant Professor of Curriculum and Instruction (2004). B.S., Indiana University, 1977; M.S., 1980; Ed.D., Ball State University, 1994.
- BOWLING, ALAN, Assistant Professor in Mechanical and Aerospace Engineering (2008). B.S., University

of Texas at Austin, 1988; M.S., Stanford University, 1993; Ph.D., 1998.

- BOYAS, JAVIER, Assistant Professor of Social Work (2009). B.A., Western Illinois University, 1997 ; M.S.W. University of Michigan/Ann Arbor, 2000; Ph.D., Boston College, 2007.
- BOYD, JEANEAN, Clinical Instructor in Nursing and Clinical Coordinator (2003). B.S.N., The University of Texas at Arlington, 1976; M.S.N., 1984. Registered Nurse.
- BOYKIN, HUBERT, Lecturer in Finance and Real Estate (1988). B.A., University of Mississippi, 1959; J.D., 1961; LL.M., Southern Methodist University, 1986.
- BRANDT, ANDREW, Assistant Professor of Physics (1999). B.S., College of William and Mary, 1985; M.S., University of California at Los Angeles, 1988; Ph.D., 1992.
- BREDOW, JONATHAN W., Professor in Electrical Engineering (1989). B.S., Kansas State University, 1977; M.S., Iowa State University, 1980; Ph.D., University of Kansas, 1989.
- BROADWAY, S. CAMILLE, Assistant Professor of Communication (2005). B.A., University of Tennessee, Knoxville, 1992; M.A., University of Florida, 2002; Ph.D., 2005.
- BROWN, KEVIN E., Major, U.S. Army, Assistant Professor of Military Science (2001). B.S., University of South Alabama, 1986.
- BROWN, M. KATHRYN, Assistant Professor of Anthropology (2003). B.A., Southwest Texas State University, 1987; M.A., The University of Texas at San Antonio, 1995; Ph.D., Southern Methodist University, 2003.
- BROWN, TERRA, Lecturer in Accounting (2007). B.A., Texas Christian University, 1999; M.P.A., The University of Texas at Arlington, 2005.
- BRUNO, VINCENT J., Professor Emeritus of Art (1976). B.A., Kenyon College, 1951; M.A., Columbia University, 1962; Ph.D., 1969.
- Bubert, Dennis L., Visiting Assistant Professor of Music (2002). B.M., Illinois Wesleyan University, 1976; M.M., Southern Methodist University, 1978.
- BUCKWALTER, JOHN B., Professor and Chair of the Department of Kinesiology (2007). B.S., Centenary College, 1991; B.A., 1991; M.S., University of Arkansas, Fayetteville, 1992; Ph.D., 1995.
- BUINGER, GENE, Lecturer in Educational Leadership and Policy Studies (2001). B.A., Fort Hays State College, 1958; M.Ed., University of Missouri, 1973; Ph.D., Oklahoma State University, 1984.
- BURGESS-JACKSON, KEITH, Associate Professor of Philosophy (1989). A.B., University of Michigan, 1979; M.A., Wayne State University, 1983; J.D., 1983; M.A., University of Arizona, 1985; Ph.D., 1989.
- BURKART, BURKE, Professor Emeritus of Earth and Environmental Sciences (1970). B.S., The University of Texas at Austin, 1954; M.A., 1960; Ph.D., Rice University, 1965.
- BURNS, Nancy, Professor Emeritus in Nursing, (1976). BSN, Texas Christian University, 1957; MSN, Texas Woman's University, 1974; PhD, 1981. Registered Nurse.
- BURQUEST, DONALD A., Professor Emeritus of Linguistics (1975). B.A., Wheaton College, 1961; M.A., University of California at Los Angeles, 1965; Ph.D., 1973.
- BURTON, JOHN R., Professor and Chair of the Department of Music (2006). B.M., Rice University, 1979;

M.M., 1979; D.M.A., University of Southern California, 1987.
- BUTLER, DONALD, Professor in Electrical Engineering (2002). B.A.Sc., University of Toronto, 1980; M.S., University of Rochester, 1981; Ph.D., 1986.
- BUTLER, RANDALL R., Visiting Assistant Professor of Criminology and Criminal Justice (2007). B.A., Walla Walla College, 1968; M.A., The University of Texas at Arlington, 2002; Ph.D., Brigham Young University, 1980.
- BUTTS, MARCUS, M., Assistant Professor of Management (2007). B.S., Texas A&M University, 1998; M.S., University of Georgia, 2003; Ph.D., 2007.
- BYRD, MIRIAM, Assistant Professor of Philosophy (2005). B.A., Emory University, 1990; M.A., University of North Carolina, 1992; Ph.D., University of Georgia, 2001.

C

- CALOSS, RONALD, Director of Superintendency Program in Educational Leadership and Policy Studies (1998). B.A., St. Mary's University, 1966; M.Ed., Our Lady of the Lake University, 1973; Ed.D., Nova Southeastern University, 1984.
- CAMPBELL, DARLENE, Lecturer in Mathematics (1996). B.S., The University of Texas at Tyler, 1988; M.S., The University of Texas at Arlington, 1996.
- CAMPBELL, JONATHAN A., Professor and Chair of the Department of Biology (1983). B.A., University of Mississippi, 1969; M.A., The University of Texas at Arlington, 1977; Ph.D., University of Kansas, 1982.
- CANNON, ALAN R., Assistant Professor of Information Systems and Operations Management (2003). B.A., Clemson University, 1984; M.B.A., 1995; Ph.D., 1999.
- CANTWELL, DONALD W., Professor Emeritus of Finance and Real Estate (1959). B.B.A., Southern Methodist University, 1953; M.B.A., 1959; J.D., 1962. State Bar, 1962.
- CARNEY, KIM, Professor Emeritus of Economics (1967). B.S., Northwestern University, 1947; M.A., Southern Methodist University, 1965; Ph.D., 1968.
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- CASTRO, DAVID R., Assistant Professor of Music (2005). B.M., Pacific Union College, 1998; M.M., University of Arizona, 2000; Ph.D., University of Oregon, 2005.
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- KNERR, CHARLES R., Associate Professor of Political Science (1976). B.S., University of Maryland, 1972; M.P.A., Syracuse University, 1973; Ph.D., 1977.
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- McDOWELL, ROBERT E., Professor Emeritus of English (1966). B.S., Drake University, 1952; M.A., University of Minnesota, 1956; Ph.D., University of Denver, 1966.
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