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University Calendar 2001-2002

Fall Sessions, 2001

Registration for Fall Semester for all students
First day of classes
Late registration
Labor Day (holiday)
Census date
End of first drop period for undergraduates
Midsemester: Graduate student drop policy applies
Current and former student registration begins
 for Wintersession and Spring Semester
Last date for undergraduates to drop courses
Thanksgiving holidays
Wintersession and Spring registration begins for all students
Last day of classes
Final exams
Commencement ceremonies

Regular Fall Semester

June 28-Aug. 26
August 27
August 27-28
September 3
September 12
October 5
October 19

October 29
November 16
November 22-25
November 22
December 7
December 8, 10-14
December 15-16

Winter Session, 2001-2002

Last day to register
Wintersession classes, Monday-Friday
Census date
Last day to drop with automatic "W" grade
Classes continue, Wednesday-Friday
Mid-Session date
Last day for drop from Wintersession
Classes continue, Monday-Wednesday
Wintersession final exams

December 17
December 17-21
December 18
December 20
January 2-4
January 3
January 4
January 7-9
January 10

Spring Sessions, 2002

Registration for Spring Semester for all students
First day of classes
Late registration
Martin Luther King Jr. Day (holiday)
Census date
End of first drop period for undergraduates
Midsemester: Graduate student drop policy applies
Spring vacation
Current and former student registration begins
 for Maymester and Summer
Last day for undergraduates to drop courses
Maymester and Summer registration begins for all students
Last day of classes
Final exams
Commencement ceremonies

Regular Spring Semester

Nov. 22-Jan. 13
January 14
January 14-15
January 21
January 30
February 22
March 8
March 18-24

April 1
April 12
April 25
May 3
May 4, 6-10
May 11-12

Maymester, 2002

Last day to register	May 13
Maymester classes, Monday-Saturday	May 13-18
Census date	May 14
Last day to drop with automatic "W" grade	May 16
Midsemester date	May 20
Classes continue, Monday-Friday	May 20-24
Last day to drop from Maymester	May 22
Maymester final exams	May 31

Summer Sessions, 2002

	<u>1st Five Week</u>	<u>11 Week</u>	<u>2nd Five Week</u>
Registration for Summer Sessions for all students	April 25-May 28	April 25-May 28	April 25-July 7
Memorial Day holiday	May 27	May 27	
Classes begin	May 28	May 28	July 8
Late Registration	May 28-29	May 28-29	July 8-9
Current and former student registration begins for Fall	June 3	June 3	June 3
Census Date	June 4	June 10	July 11
End of first drop period	June 11	June 25	July 18
Midsemester: Graduate student drop policy applies	June 13	July 3	July 23
Last date for undergraduates to drop a course	June 25	July 23	August 1
Fall registration begins for all students	June 27	June 27	June 27
Independence Day holiday		July 4	
Last day of classes	July 1	August 8	August 8
Final exams	July 2	August 12-13	August 12
Commencement Ceremonies	August 17-18	August 17-18	August 17-18

University Calendar 2002-2003

Fall Sessions, 2002

Registration for Fall Semester for all students
First day of classes
Late registration
Labor Day (holiday)
Census date
End of first drop period for undergraduates
Midsemester: Graduate student drop policy applies
Current and former student registration begins
 for Wintersession and Spring Semester
Last date for undergraduates to drop courses
Thanksgiving holidays
Wintersession and Spring registration begins for all students
Last day of classes
Final exams
Commencement ceremonies

Regular Fall Semester

June 27-August 25
August 26
August 26-30
September 2
September 11
October 4
October 18

November 4
November 15
November 28-December 1
November 28
December 6
December 7, 9-13
December 14-15

Winter Session, 2002 - 2003

Last day to register
Wintersession classes, Monday-Friday
Census Date
Last day to drop with automatic "W" grade
Classes continue, Thursday-Saturday
Mid-Session date
Last day for drop from Wintersession
Classes continue, Monday-Wednesday
Wintersession, final exams

December 16
December 16-20
December 17
December 19
January 2 - 4
January 3
January 6
January 6-8
January 9

Spring Sessions, 2003

Registration for Spring Semester for all students
First day of classes
Late registration
Martin Luther King Jr. Day (holiday)
Census date
End of first drop period for undergraduates
Midsemester: Graduate student drop policy applies
Spring vacation
Current and former student registration begins
 for Maymester and Summer
Last day for undergraduates to drop courses
Maymester and Summer registration begins for all students
Last day of classes
Final exams
Commencement ceremonies

Regular Spring Semester

November 28-January 12
January 13
January 13-17
January 20
January 29
February 21
March 7
March 17-23

April 7
April 11
May 1
May 2
May 3, 5-9
May 10-11

Maymester, 2003

Last day to register	May 12
Maymester classes, Monday-Saturday	May 12-17
Census date	May 13
Last day to drop with automatic "W" grade	May 15
Midsemester date	May 19
Classes continue, Monday-Friday	May 19-23
Last day to drop from Maymester	May 21
Maymester final exams	May 30

Summer Sessions, 2003

	<u>1st Five Week</u>	<u>11 Week</u>	<u>2nd Five Week</u>
Registration for Summer Sessions for all students	May 1-26	May 1-26	May 1-July 6
Memorial Day holiday	May 26	May 26	
Classes begin	May 27	May 27	July 7
Late Registration	May 27-28	May 27-28	July 7-8
Current and former student registration begins for Fall	June 2	June 2	June 2
Census Date	June 3	June 9	July 10
End of first drop period	June 9	June 24	July 17
Midsemester: Graduate student drop policy applies	June 12	July 2	July 22
Last date for undergraduates to drop a course	June 24	July 26	July 31
Fall registration begins for all students	June 26	June 26	June 26
Independence Day holiday		July 4	
Last day of classes	June 30	August 7	August 7
Final exams	July 1	August 11-12	August 11
Commencement Ceremonies	August 16-17	August 16-17	August 16-17

The University of Texas System

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The University of Texas at Arlington

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The University of Texas at Arlington

University Profile

The University of Texas at Arlington is located in the heart of the Dallas/Fort Worth Metroplex, one of the fastest growing areas in the nation. U.T. Arlington has emerged as a comprehensive teaching, research and public service university offering an array of baccalaureate, master's, doctoral and special professional degrees. A modern 390-acre campus a few blocks from downtown Arlington offers easy access to museums, concerts, ballet, theater, family recreation, professional sports and other interests.

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

With an enrollment of more than 20,000 students, U.T. Arlington is the second largest of the 15 institutions in The University of Texas System. The student body has become increasingly diversified with students representing 42 states, two U.S. territories and more than 100 countries. The University's academic units include the School of Architecture, College of Business Administration, School of Education, College of Engineering, Honors College, College of Liberal Arts, School of Nursing, College of Science, School of Social Work, and School of Urban and Public Affairs. Additionally, the Graduate School oversees the administration of academic programs beyond the baccalaureate level.

In response to societal needs, U.T. Arlington has evolved into a university of renown within the state and of emerging position nationally and internationally. The University's history of achievement can be attributed to a faculty of increasing competence and accomplishments; a student body of higher qualifications and greater diversity; a record of growing success by graduates in their respective disciplines; and the maturation of the Dallas/Fort Worth area as a nationally and internationally significant metropolis.

Mission Statement

The mission of The University of Texas at Arlington is to pursue knowledge, truth and excellence in a student-centered academic community characterized by shared values, unity of purpose, diversity of opinion, mutual respect and social responsibility. The University is committed to lifelong learning through its academic and continuing education programs, to discovering new knowledge through research and to enhancing its position as a comprehensive educational institution with bachelor's, master's, doctoral and non-degree continuing education programs.

Accreditation

The University of Texas at Arlington is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia, 30033-4097; Telephone number: 404-679-4501) to award bachelor's, master's and doctoral degrees.

In addition, many of the academic departments and schools have received national accreditation from specific agencies.

Government

The government of U.T. 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 U.T. Arlington is the University president, under the authority of the Office of the Chancellor of the U.T. 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

In accordance 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**, 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 applicable law no person shall, on the basis of race, color, national origin, religion, age, sex, handicap, disabilities or veteran status, be denied employment or admission, be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity which it sponsors or conducts. It is also U.T. Arlington's policy to maintain a work environment free from discrimination on the basis of sexual orientation. The University shall not tolerate any behavior or verbal or physical conduct by any administrator, supervisor, faculty or staff member which constitutes sexual harassment.

Any inquiries concerning the application of this policy and complaints of discrimination should be directed to the University's Equal Opportunity/Affirmative Action Office, 710 S. Davis, 817-272-2106. E-mail: coaa@uta.edu. Web site: www.uta.edu/eoaa.

Sexual Harassment, Sexual Misconduct and Consensual Relationships Policy

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

Sexual harassment includes, but is not limited to, unwelcome sexual advances, requests for sexual favors, insults, sexual threats, innuendoes

and other verbal or physical conduct of a sexual nature under circumstances where: 1) submission to such conduct is made either explicitly or implicitly a term or condition of employment (or a student's status in a course, program or activity); 2) submission to or rejection of such conduct by an employee is used as a basis for employment decisions affecting the individual (or in the case of a student, it is used as a basis for academic or other decisions affecting a student); or 3) such conduct has the purpose or effect of unreasonably interfering with the individual's employment (or the student's educational experience), or of creating an intimidating, hostile or offensive academic environment.

Inappropriate sexual behavior should be reported to the Office of Equal Opportunity and Affirmative Action, 710 S. Davis Drive, Office and Classroom Building (OCB), 817-272-2106. E-mail: eoaa@uta.edu. Web site: www.uta.edu/eoaa.

Academic Programs and Degree Offerings

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

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

U.T. Arlington offers baccalaureate degrees in the following areas:

Architecture

- Architecture
- Interior Design

Business Administration

- Accounting
- Business Administration (includes options in Finance, Information Systems, International Business/Modern Language, Management, Production/Operations Management Science, Marketing, Economics 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)
- Classical Studies
- Communication (Advertising, Broadcast Communication, Communication Technology, Journalism, Public Relations, Speech)
- Criminology and Criminal Justice
- English
- Modern Languages (French, German, Russian, Spanish)
- History
- Interdisciplinary Studies
- Music
- Philosophy
- Political Science
- Sociology
- Theatre Arts

Nursing

- Nursing

Science

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

Social Work

- Social Work

UTA/Fort Worth Riverbend Campus

Since the UTA/Fort Worth Riverbend Campus opened its doors in August 1999, it has expanded its graduate and upper-division undergraduate courses to meet the needs of working professionals. Current offerings include degree programs in business, computer science, engineering, health care administration, eBusiness, management of technology and nursing. Specialized non-credit programs via the Public Broadcast System (PBS) address training needs of corporations in leadership, customer service, employee retention and management.

Programs leading to a master's degree are as follows:

- Accelerated MBA (28 month program)
- Health Care Administration
- Management of Technology (a hybrid of engineering and business courses)

For more descriptive information, contact the Web site at <http://uta-fortworth.uta.edu>.

The campus incorporates the latest instructional technology to serve Fort Worth and the surrounding vicinity. State-of-the-art video conferencing systems have the capability to transmit UTA/Fort Worth Riverbend classes to the main campus in Arlington and other locations with compatible configurations. This enables students to participate in selected courses even when the instructor is in another location. Internet and videotaped versions of classes are also available to students as a supplementary resource.

The UTA/Fort Worth Riverbend Campus is conveniently located, with ample parking available, just north of the I-30 and Loop 820 intersection, 10 minutes east of downtown Fort Worth.

Center for Distance Education

The Center for Distance Education was founded in June 1997 and serves as a resource for the creation and delivery of online instruction at U.T. Arlington. Center staff members specialize in developing media-rich Internet classes.

During the 1999-2000 academic year, more than 1,100 undergraduate and graduate learners enrolled in online classes developed and delivered by the center. In addition to functioning as a dynamic courseware development site, the Center for Distance Education also serves as an information and coordination resource for all distance education efforts on campus.

Complete information about center activities is available at <http://distance.uta.edu>, via e-mail to info@distance.uta.edu, or by calling 1-888-UTA-DIST (882-3478).

Televised Instruction

The University of Texas at Arlington televises a limited number of graduate and undergraduate courses. Selected courses may be available by mailed-out videotape, on the University's Arlington cable TV channel, or over dedicated videoconferencing networks to selected business and academic sites in Texas. Course offerings vary each semester. For specific information about televised offerings for a given semester, contact the College of Business Administration at 817-272-2881, School of Nursing at 817-272-2776, School of Social Work at 817-272-3181 or Department of Criminology and Criminal Justice at 817-272-3318.

UT TeleCampus

The UT TeleCampus is a centralized service and support unit for online education within The University of Texas System. Similar in design to a traditional campus, the UT TeleCampus offers admissions links, learning resources and student support services. Degree programs offered via the UT TeleCampus are collaborative, accredited degrees from the participating University of Texas System institutions. Students apply to their selection of a home campus from among the U.T. System partner campuses for each program. Upon completion of the degree plan, the diploma will be awarded from that U.T. System institution. The online courses comprising these degrees are taught by the same expert faculty who teach on-campus courses. Courses run semester to semester to allow for interaction within the classroom. During the course of study, students access the TeleCampus for services ranging from virtual classrooms to bookstores and digital libraries. For more information, access www.telecampus.utsystem.edu, call 1-888-TEXAS-16, or send e-mail to telecampus@utsystem.edu.

Study Abroad Programs

To help its students attain the education demanded by today's increasingly interdependent world, U.T. 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, Norway, Russia and Eastern Europe, Spain and Thailand. Students can find more information about these programs in the Study Abroad Reference Library in the International Office, Lower Level, University Center, or by calling 817-272-2355. Application deadlines for spring programs are typically in early October. Deadlines for most summer and fall programs are usually in mid- to late-March.

Most financial aid that students would normally receive for studying at the University may continue to be utilized during a U.T. Arlington study abroad program. If a student is on any federal or state financial aid, the student should discuss the specifics of the application of such aid and the possible adjustment of the student's need level with the overseas opportunities advisor in the International Office and subsequently the Financial Aid Office. Participants are also eligible to apply for an International Education Fee Scholarship (IEFS). This is funded by \$1 collected from each student at registration. Applications are available from the International Office and are due October 15 for spring programs, and March 31 for summer and fall programs. IEFS recipients must show both academic merit and financial need.

See the Modern Language Department section of this catalog for additional information on study abroad programs.

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 the study. Information about the programs may be obtained from the Allied Health Coordinator in Room 351, Life Science Building.

Two-year Transfer Programs

- Health Care Administration
- Gerontology
- Dietetics
- Occupational Therapy
- Pharmacy
- Dental Hygiene
- Physician's Assistant
- 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 preprofessional 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

premedical 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, prelaw students are free to choose the degree program that best suits their interests and abilities. Students who desire a prelaw 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:

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

Continuing Education

The Division of Continuing Education provides lifelong learning opportunities for individuals of all ages who are interested in improving skills for professional and personal development. Continuing Education programs are non-degree and are offered under a variety of formats. Whether individuals are interested in technical training, other types of career and professional development or personal enrichment, the Division of Continuing Education makes every effort to meet their needs. Courses are scheduled during weekdays, evenings, and weekends for the convenience of the customer.

Registration fees for participants are determined by the cost of programs. For more information, contact the Division of Continuing Education by calling (817) 272-2581, faxing (817) 272-2556, or visiting www.ced.uta.edu. The address is 1022 W. Border, Arlington, TX 76019.

Undergraduate Admissions

Office of Admissions, Recruitment and Orientation
123 Davis Hall • Box 19111 • 817-272-MAVS (6287) • www.uta.edu/admissions

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 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 end of regular registration. 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 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 U.T. 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 process 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, official transcripts and test scores that provide an applicant's current academic status will be required.

Priority Deadlines

Application Deadline	Fall Semester	Spring Semester & Winter Session	Summer Semester & Maymester
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	June 1	October 1	April 1
Transient students	June 1	December 1	April 1

Texas Common 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 Texas Common Application. All undergraduate freshmen, transfer, former, and transient students applying to a Texas public institution of higher education may use this form. It may be accessed and sent electronically via the Internet at www.applytexas.org.

Admission Application Fee

All new applicants to U.T. Arlington must pay a \$25 (U.S. Citizen/Permanent Resident) or a \$50 (International) non-refundable admission application fee. U.S. citizens and permanent residents with international academic credentials must pay a \$50, instead of a \$25,

application fee. The fee must be paid by check 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 with at least 20 acceptable high school units, including the subjects prescribed under the High School Preparation section of this catalog.

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 enrollment.

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

Applicants who meet the SAT/ACT and high school units criteria listed in this section or who graduated in the top 10 percent of their class from an accredited Texas high school are guaranteed admission. Those who have a different pattern of grades, courses and/or 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

If the applicant does not meet admission requirements after individual review, admission may be deferred pending completion of a minimum of 30 transferable credit hours at a junior or community college with a grade point average of at least a 2.0.

Prospective freshmen who have graduated from Texas high schools and who have completed the required sequence of high school courses but who are not otherwise admissible may be offered the Gateway Program. Applicants who are guaranteed admission because they have graduated in the top 10 percent of their high school class may be required to enter the Gateway Program if they do not have the units described under High School Preparation. Non-residents of Texas are not eligible for the Gateway Program.

Rank in High School Graduating Class	Minimum Acceptable SAT Score	Minimum Acceptable ACT Score
Top 10%	No minimum score, but students must submit scores.	No minimum score, but students must submit scores.
Next 15% of the top quarter	900	19
Second Quarter	950	20
Third Quarter	1000	21
Fourth Quarter	1150	25

Engineering: For pre-major status, applicants to the College of Engineering are required to present the following minimum test scores:

Minimum SAT Score	Minimum ACT Score
1200	28

Prospective engineering majors who meet general university requirements for admission but not the above listed test scores will be admitted to general engineering.

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. 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. 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. Test applications can also be obtained from a local high school or from the Office of Counseling and Career Development at U.T. 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.

High School Preparation

To be eligible for admission to the University as a freshman, a student must be a high school graduate and have a minimum of 20 acceptable high school units. 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. The minimum high school units required for admission are:

A. Language Arts

Required: Four units of English, one of which may be writing, world literature, speech or journalism. (For speakers of other languages, English may not be used to fulfill the language arts requirement, but may be counted as an elective in area F.)

B. Science

Required: Three units of science—physical science, biology I and II, chemistry I and II or physics I and II.

* **Strongly recommended:** Students planning to enter scientific, engineering, and other technical fields are advised to take at least three units of laboratory science, including chemistry and physics. The additional unit may be counted as an elective in Area F.

C. Foreign Language

Required: Two units in a single language. American Sign Language may be used to fulfill the foreign language requirement.

* **Strongly recommended:** Three units in a single language.

D. Mathematics

Required: Three units at the level of algebra I or higher—algebra, plane geometry, analytic geometry, elementary analysis, probability and statistics, solid geometry, calculus with analytic geometry, number theory. (Informal geometry and pre-algebra are below achievement level courses and will not fulfill the mathematics requirement, but may be counted as electives.)

* **Strongly recommended:** Students planning to enter scientific, engineering or other technical fields are advised to take at least four units of math. The additional unit may be counted as an elective in Area F.

E. Social Studies

Required: Three units of anthropology, area studies, ethnic studies, economics, geography, government (civics), philosophy, social science, psychology, sociology, Texas history (advanced), United States history, world history.

Strongly recommended: Four units of social studies to include world history, world geography, U.S. history, U.S. government or economics.

F. Electives

Strongly recommended: physical education, 1 1/2 units; health, 1/2 unit; computing proficiency, 1 unit; fine arts, 1 unit; and music, theater, art or other, 1 unit.

* Students may substitute specialization electives for the fourth year of mathematics and/or the fourth year of science. Specialization electives include courses in two areas:

- Language arts, science, social studies, fine arts, foreign language or computer science or
- Technical preparation, applied technology or workforce education.

A variety of other courses not listed here, including developmental courses, are not acceptable for college preparation. Admission will not be granted to applicants who have not completed the required units listed above. Students whose high school curriculum does not include the courses necessary to complete the unit requirements may appeal to the Admissions Review Committee for an exception. Students who are admitted by exception must remove deficiencies to graduate. Courses taken to remove a deficiency do not count toward the student's degree.

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 U.T. 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.
- Official minimum SAT scores of 1,000 or minimum PSAT scores of 100, or minimum ACT scores of 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 U.T. 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 U.T. 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 U.T. Arlington **must complete** a Freshman Application for Admission and submit an official final high school transcript.

Gateway Program (Provisional Admission)

A Texas resident who graduates from an accredited high school with the required units listed in the section, High School Preparation, 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 Program. A Gateway student must enroll in the first year following high school graduation. Beginning spring 2000, Gateway students will only be admitted in fall and spring semesters. 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 student **must**:

- Attend an orientation program on campus prior to registration. The purpose of this program is to advise the student of general University courses, course load, course scheduling and course registration.
- Enroll in a minimum of 12 or a maximum of 14 hours in the fall or spring. Classes must include three hours in English; three hours in mathematics; three hours in HEED 1302, University Success; and a fourth class from the core curriculum. Courses must be selected in consultation with an advisor.
- Satisfactorily complete all course work. A grade of Z (no credit) in any developmental course will not be considered passing.
- Students who earn a 2.0 GPA or better at the end of the first semester are eligible to enroll the next 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 U.T. Arlington upon completion of 30 semester credits of transferable credit and a 2.0 GPA from another college or university. Dismissed students may appeal this decision to the Gateway Committee.

To increase their chances for academic success, students will meet three times each semester with the Gateway advisor in the University Advising Center (241 Davis Hall). The priority application deadline for the fall Gateway Program is June 1; the deadline for the spring program is December 1. All Gateway students are required to present TASP scores or 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 director of admissions has 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 U.T. Arlington as being equivalent to graduation from an accredited high school.

Transfer Admission

Prospective students who have attempted college-level courses beyond the summer following high school graduation 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 workforce or developmental courses are used to compute a transfer grade point average. Grades earned in every course attempt 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.

Applicants who meet the criteria listed in this section under Transfer Admission are guaranteed admission. Those who have a different pattern of grades, courses and/or test scores will be considered on an individual basis and may be asked to submit additional information such as recommendations from professors, teachers and counselors, a writing sample or interview.

Freshman Transfers

(less than 30 college hours completed)

Applicants who have completed fewer than 30 hours of transferable credit must have a grade point average of at least 2.0 to be admitted. In addition, they must meet the admission requirements for entering freshmen at U.T. 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.

Transfers With Sophomore or Higher Classification

(30 or more college hours completed)

Applicants who have completed 30 or more hours of transferable credit must have at least a 2.0 grade point average to be admitted. The College of Engineering requires all engineering transfer students to submit either SAT or ACT scores. Admission as an engineering pre-major or general engineering will be based on the test criteria described in the Freshman Admission section.

Prospective transfer students who have completed 30 or more transferable credit hours must submit: 1) an undergraduate application for admission, 2) an official transcript from each accredited college or junior 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 Office of Research and Graduate Studies. An applicant who wishes to take graduate course work before gaining admission to the Graduate School should contact the Office of Research and Graduate Studies 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 dean. 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. At the discretion of the director of admissions, in rare circumstances course credit earned at other institutions may also be accepted in transfer.

- Occupational or 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.
- 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.
- 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 dean.
- 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.
- Credit in which a grade of D was earned is not transferable and will not count toward a degree.
- Grades earned at other institutions are not averaged with grades earned at The University of Texas at Arlington to determine the student's internal University grade point average.
- Transfer credit evaluations
 - a. University course numbers may be modified in transfer credit evaluations to reflect more or less credit value than is normally offered in a course at the University. For example, Mathematics 1302, a three-semester-hour course, is rendered as Mathematics 14XO when taken as a four-semester hour course at another institution, thereby allowing the full amount of earned credit to transfer. Course numbers may also be modified to accommodate sequences not normally offered at the University. For example, Mathematics 1302 may be rendered as 16XO when comparable content is taken as two three-semester-hour courses at another institution.
 - b. Courses taught at other institutions often have no direct U.T. 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 dean.
 - 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.
- If the University refuses to accept lower-division credit earned at another Texas public institution of higher education, the student and the sending institution will be given written notice that transfer credit was refused. If non-transfer of credit is disputed, the University will attempt to resolve the matter 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 or the sending institution's satisfaction within 45 days of the initial notification, the University will notify the Coordinating Board of the refusal of the transfer credit and the reasons for refusal. The Coordinating Board will resolve the dispute and notify the parties of its findings.

Transfer of Lower Division Course Credit

U.T. 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 U.T. 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.
- A university may deny the transfer of credit in courses with a grade of D as applicable to the student's major.
- 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 Junior College Transfers

A student transferring from an accredited public junior 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 junior college. However, the student's choice of major may affect whether or not transferable course work may be counted toward a degree.

Former and Continuing Students

A student who has attended U.T. Arlington previously, but has not been enrolled for one calendar year must reapply for admission by submitting an admission application and application fee to the Office of Admissions. Continuing students, those who have been officially enrolled at U.T. 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 U.T. 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 2.00 grade point average on all college-level courses attempted since last enrolled at U.T. Arlington. Former students on academic probation or suspension upon resigning from U.T. 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.

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 U.T. 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 Academic Skills Program (TASP) regulations. TASP 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) official transcripts of previous academic work, 3) standardized test scores when required, 4) the Test of English as a Foreign Language (TOEFL), 5) evidence of sufficient financial support while studying in this country, and 6) the application processing fee of U.S. \$50, which is not refundable.

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. For an international student from a non-English speaking country, the minimum acceptable score on the TOEFL is 550 on the paper-based test and 213 on the computer-based test. The minimum acceptable score on the SAT for consideration of freshman applicants and those with fewer than 30 transferable course hours is 900 on the rescaled score.

Texas Academic Skills Program

Undergraduate students who have not fulfilled requirements of the Texas Academic Skills Program (TASP) will be barred from registration. See the Registration section of this catalog. TASP requirements are listed in the Office of Counseling and Career Development section of this catalog. For more information regarding TASP regulations, contact the academic advisor in the TASP Office in the University Advising Center, Room 241, Davis Hall, 817-272-3140.

Major Classifications

All entering students will be classified either undeclared majors, pre-majors or majors. All entering students who are not ready to declare a major will be admitted as undeclared majors. Students who do not meet requirements of a major will be admitted to a college/school as pre-majors. Pre-majors will be advised by departmental advisors, and undeclared majors will be advised in 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.

45/75 Rule

Students may continue at the University without being accepted into a degree program (undeclared or pre-major status) until they have accumulated 75 semester credit hours **attempted** (including transfer hours and credit by examination or advanced placement), and 45 hours **attempted** in residence (not including credit by examination). After reaching **both** of these limits, students will not be permitted to register until they are accepted into a degree program. Courses in which the student receives a **W** will not be included in calculating these limits.

Admission to upper division work: In addition to the requirements outlined in the preceding section, some academic programs have established minimum standards for admission to upper division or professional sequence courses. The student should consult departmental advisors about eligibility to register for upper division course work.

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 TASP 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 U.T. Arlington indicating admission has been granted 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 U.T. Arlington.

Academic Fresh Start may be claimed only upon application to the University and will not be applicable to currently enrolled U.T. 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 U.T. 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. Students are strongly encouraged to start the admission process early to ensure a space at orientation.

For students starting U.T. 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 no accommodations for parents or guests. 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.

Students admitted into the Gateway Program must attend an orientation specifically designed for Gateway students. Information on the orientation date will be mailed to each student upon admission to the Gateway Program.

International Student Orientation

A New International Student Orientation is held on the Monday before classes begin. Attendance at this orientation program is required for all non-immigrants who are new to U.T. Arlington, including transfer students. Information specific to the needs of international students is covered in this orientation. Students are notified by letter of this New International Student Orientation at the time of notification of admission or shortly thereafter. Attendance at any other U.T. 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

U.T. Arlington recognizes that many excellent students have gained academic achievement in certain subject areas prior to entering an institution of higher education. U.T. 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.

U.T. 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 Defense Activity for Nontraditional Support Program (DANTES), the International Baccalaureate Program (IB), and the National League of Nursing Mobility Profile II and Achievement examinations. U.T. Arlington also offers advanced standing examinations prepared by departmental faculties.

The following policies govern the awarding of credit by examination by U.T. Arlington:

- Credit by examination is available to admitted undergraduate students who are currently enrolled or who are formerly enrolled. There is no limit to the amount of credit that can be earned by examination.
- Credit by examination can be awarded only for courses in which a student has neither a passing nor failing grade at U.T. Arlington or transfer credit from another institution of higher education. Official test scores must be sent to Measurement and Testing Service for credit by examination to be awarded. Additional eligibility requirements for certain courses are listed in Measurement and Testing Service's Credit by Examination brochure.
- Credit by examination can be used to meet prerequisites for higher-level courses.

- Credit earned by examination satisfies degree requirements in the same way as credit earned by passing courses except that 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 24 of the last 30 semester hours in residence, and (c) 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.
- 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, students must complete the form Petition to Record Credit by Examination and submit it to Measurement and Testing Service. A student's test results will be evaluated for eligibility in accordance with academic departmental policies in effect on the date the Petition to Record Credit by Examination form is received at Testing Services. Credit by examination will be posted to a student's official record after the student has enrolled and completed one semester at U.T. 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 U.T. Arlington, subject to the same conditions as corresponding resident course work from that institution. The Office of Admissions is responsible for evaluating all transfer work.

Further information regarding test dates, registration procedures and deadlines, fees, current eligibility criteria and the Petition to Record Credit by Examination form may be obtained from Measurement and Testing Service in Room 216, Davis Hall. Students may write to Measurement and Testing Service, University of Texas at Arlington, P.O. Box 19156, Arlington, Texas 76019; or call 817-272-3670; or FAX to 817-272-5792.

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.

Foreign Language Placement Examination

Students who have high school credit for a foreign language or equivalent knowledge must take the foreign language placement examination prior to registering for a course in the language.

Texas Residency for Tuition Purposes

The Office of Admissions determines Texas residency status for all new and continuing U.T. Arlington undergraduate students. Graduate students should contact the Office of Research and Graduate Studies. A review of responses on the admission application is conducted by the residency determination official in the Office of Admissions in accordance with Title 3 of the *Texas Education Code*. The relevant *Texas Education Code* statutes and regulations promulgated by the Texas Higher Education Coordinating Board are printed in the handbook, "Rules and Regulations for Determining Residence Status." Copies of this publication are available from the Office of Admissions or the Texas Higher Education Coordinating Board Web site, www.theccb.state.tx.us.

When incomplete, insufficient or conflicting information is presented on the admission application, the student will be sent a Residence Questionnaire. This should be completed, notarized and returned to the Office of Admissions with appropriate supporting documentation prior to registration. After the Residence Questionnaire has been reviewed, the student will receive a written response of the residency determination from the Office of Admissions.

All Texas residency determinations may be appealed to the Residency Appeal Committee. Committee members are full-time staff from the Office of Admissions, Office of Research and Graduate Studies, and the Registrar's Office. An appeal should be requested by sending a written statement to the Residency Appeal Committee that specifically details personal and business facts or actions that indicate a fixed intention to permanently reside in Texas. Supporting documentation of those facts or actions should be included. The committee will respond to every appeal in writing. Correspondence to the Residency Appeal Committee from undergraduate students should be sent to the Office of Admissions, Box 19111, Arlington, TX, 76019.

Registration

Registration Office, B17 Davis Hall • Box 19088 • 817-272-3165

To attend The University of Texas at Arlington any given semester, a student must register and pay fees. All registration at U.T. Arlington may be done by SAM, the University's touch-tone telephone system, by calling 817-272-2726, or by Web at www.uta.edu. The current semester's Schedule of Classes gives the exact dates and times for registration and should be consulted each semester, not only for registration information but advising instructions as well. The Spring Schedule of Classes is available in mid-October; the Summer/Fall Schedule of Classes is available in mid-March. All students may register by SAM or Web prior to the semester. New students, most re-admitted former students and continuing students in certain majors must be advised. **If advising is required, it must be done prior to registration.**

Scheduling Classes: All students must register every semester to attend that semester. Changes to course schedules may be made by SAM or Web as well. Students who are no longer eligible for enrollment at the start of the semester will have their registration canceled and their tuition and fees refunded.

Payment of Fees: Refer to the Tuition, Fees, and Charges section of this catalog for registration billing and payment.

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

An undergraduate student taking 12 or more semester hours during a fall or spring semester is considered to be a full-time student.

Student Schedules

Trial schedules which follow approved degree programs should be planned prior to registration. If advisement is required, it must be done prior to registration. The advisor assists the student in preparing a course of study for the semester. All students are advised to balance their programs over a five-day week. Working students are urged to consult their advisors about how to establish a reasonable ratio between academic load and work hours and are reminded that two hours of preparation is generally needed for each classroom hour.

Texas Academic Skills Program

Undergraduate students who have not fulfilled requirements of the Texas Academic Skills Program (TASP) will be barred from registration. See requirements listed in the Office of Counseling and Career Development section of this catalog. For more information regarding TASP regulations, contact the TASP Office in the University Advising Center, Room 241, Davis Hall.

Fall and Spring School Hours

Classes during the fall and spring semesters are scheduled from 8 a.m. to 10 p.m. There is no separate evening school.

Five-Week Summer Sessions

The summer sessions during the day hours are divided into two terms of approximately five weeks. A three-semester-credit-hour lecture course is typically scheduled for two hours daily, Monday through Thursday. Without permission from the academic dean, the maximum load a student may take during a five-week summer term is seven credit hours.

Eleven-Week Summer Session

Evening classes in the summer are scheduled for one term of 11 weeks. Some day classes may be scheduled for a term of 11 weeks as well. A three-semester-credit-hour lecture course is scheduled for two hours twice weekly.

Winter Session and Maymester Intersessions

Varying-length short sessions are held between fall and spring semesters (Winter Session) and spring and summer semesters (Maymester). Usually, these classes meet for three hours and 45 minutes a day. The maximum load a student may take during an intersession term is three credit hours.

Auditing a Course

Arrangements to audit an undergraduate course may be made during the late registration period only. The required form, obtained in the Registrar's Office, must be completed and taken to the instructor for approval. After obtaining the instructor's approval, the applicant pays a fee at Bursar Services of \$20 per course if enrolled for course work at U.T. Arlington or \$100 per course if not enrolled for course work in residence at U.T. 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.

Adds, Drops and Section Changes

During the add-drop days, students may drop, add or change sections by SAM or Web. Under special circumstances, a department may require a student to change sections. A student will not be permitted to add a course for credit or make a section change after the last day of late registration. Drops after late registration are handled in the department offering the course.

To change a major course of study, a student should file an application in the proposed major department before arranging a schedule.

Withdrawals (Resignations)

A student who wishes to withdraw (resign) voluntarily from U.T. Arlington before the first official University class day may do so by using SAM or the Web. On or after the first official University class day, a student must complete the proper resignation form in the Registrar's Office. A student who withdraws after the sixth week of class in a regular semester or the equivalent time in a summer session will be awarded a grade of W if passing a course or a grade of F if failing a course. A student may not withdraw (resign) after the 12th week of class in a regular semester or the equivalent time in a summer session as noted on the summer session calendar.

Course Identification System

Courses at U.T. 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 given on the inside back cover of this catalog. The numbers furnish information such as level, credit and hours of theory or practice. Please see the sample course below for an explanation.

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 freshman and sophomore courses; 3 and 4 indicate advanced undergraduate courses; and 5 and 6 indicate graduate courses.
- The second digit (3) denotes the semester hours credit of 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 spring and fall semesters devoted to theory. Theory includes recitations and lectures.
- The second figure in parentheses (0) indicates the clock hours per week in the spring and fall semesters 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 hour," which involves one hour of theory and/or from two to four hours of practice per week for one semester of 16 weeks.

Name and Address Change

If students change name or home address after registration, they are expected to notify the registrar in writing at once. Addresses also may be changed by calling SAM, U.T. Arlington's voice response system, at 817-272-2726, or by Web at www.uta.edu. The student will be held responsible for correspondence from University offices sent to the address last given. Students may not claim, due to a change of name or lodging, that they have not received the correspondence.

Report of Medical History

Prior to registration, a student should submit a Report of Medical History to Student Health Services. A physical examination is required only if the student is medically unfit for exercise and sport activity (EXSA). It is the responsibility of the student to complete the health form and mail it to Student 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.

Change of Major Program of Study

Undergraduate students who wish to change their major program of study must have the approval of the proposed major department to initiate the change. A student may request a change of major at any time during a semester; however, if the form is processed after the 12th week of classes, the new major will not appear on University records until the following semester.

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.

Exercise and Sport Activities Requirement

All students must complete four semester hours of required exercise and sport activities (EXSA/DNCA). This requirement may be satisfied by completing either the one-credit-hour courses or the two-credit-hour courses or by a combination of the two. The following are exceptions to the four-semester-hour requirement:

- A student will be exempt from one semester of required EXSA/DNCA for each semester of basic Army ROTC or Air Force ROTC completed or for each fall semester of marching band completed.
- A student 21 years old or older at time of first entrance in college will be exempt from required EXSA/DNCA.
- Upon reaching age 25, students will be considered as having fulfilled their requirements for EXSA/DNCA.
- A student who presents adequate documentation of service will be exempt from two semester hours of required EXSA/DNCA for each six months of active duty in the armed forces of the United States.
- A student may be excused from required EXSA/DNCA at the discretion of the academic dean when unusual or extraordinary circumstances exist.

- A student desiring to be excused for reasons of physical disability should initiate such a request with the chief of staff, Student Health Services.
- A student may receive credit for no more than two EXSA/DNCA courses taken concurrently.
- EXSA/DNCA courses may be used only to satisfy degree plan requirements for such courses. They may not be used for elective credit nor as substitutes for any other required courses. Grades earned in activity courses other than those required for the degree will not be used in determining official grade point averages.

Note: Only four semester hours of required EXSA/DNCA courses may be counted for graduation. Additional activity courses taken will not be calculated in the student's grade point average.

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 and fees 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 applies only to students following the concurrent enrollment procedures specified by the registrar of 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 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.

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 U.T. Arlington. Any reduction in tuition per the following guidelines will be refunded to the student approximately one month after the beginning of the semester.

- If the minimum tuition at the first institution is the same as or *greater* than the U.T. Arlington minimum, the amount charged for tuition will be the U.T. Arlington hourly rate.
- If the minimum tuition at the first institution is *lower* than the U.T. 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 U.T. Arlington hourly rate.
- All other applicable fees will be charged.

Tuition, Fees, and Charges

www.uta.edu/fees

Tuition, fees, and charges are subject to change by legislation and by action of The University of Texas System Board of Regents. Changes in tuition, fees, or charges will be effective upon date of enactment and will be reflected in tuition, fees, and charges assessed.

Summary of Undergraduate Tuition, Fees, and Charges for 2001-2002 Academic Year

The following table can be used to estimate the full costs of one semester's registration. A more precise total would have to be calculated by determining the actual charges for the student's school or college and the courses for which the student has enrolled. Necessary information may be obtained on the World Wide Web at www.uta.edu/schedule.

The following tuition information is not intended to be comprehensive and is subject to change by legislative or regental action. This information should be used as a guideline for estimating charges and assumes a \$2 per semester credit hour increase in legislatively approved tuition and a \$2 per semester credit hour increase in regentally approved tuition. Final legislative action was not known before the printing of this catalog. The tuition rates listed below are estimates and are subject to legislative action.

New freshmen who first enroll in fall 1999 or subsequent semesters will be required to pay non-resident tuition rates when attempted hours exceed by 45 or more the hours required for the students' declared baccalaureate degree.

Hours	Texas Resident		Non-Resident	
	On-Campus	Distance Education Received In-State	On-Campus	Distance Education Received In-State
1	\$296.60	\$185.50	\$479.60	\$318.50
2	\$374.20	\$246.00	\$810.20	\$632.00
3	\$457.80	\$312.50	\$1,140.80	\$945.50
4	\$577.40	\$415.00	\$1,471.40	\$1,259.00
5	\$697.00	\$517.50	\$1,802.00	\$1,572.50
6	\$816.60	\$620.00	\$2,132.60	\$1,886.00
7	\$936.20	\$722.50	\$2,463.20	\$2,199.50
8	\$1,055.80	\$825.00	\$2,793.80	\$2,513.00
9	\$1,175.40	\$927.50	\$3,124.40	\$2,826.50
10	\$1,295.00	\$1,030.00	\$3,455.00	\$3,140.00
11	\$1,414.60	\$1,132.50	\$3,785.60	\$3,453.50
12	\$1,534.20	\$1,235.00	\$4,116.20	\$3,767.00
13	\$1,644.80	\$1,337.50	\$4,437.80	\$4,080.50
14	\$1,752.00	\$1,440.00	\$4,756.00	\$4,394.00
15	\$1,854.50	\$1,542.50	\$5,069.50	\$4,707.50
16	\$1,957.00	\$1,645.00	\$5,383.00	\$5,021.00
17	\$2,059.50	\$1,747.50	\$5,696.50	\$5,334.50
18	\$2,162.00	\$1,850.00	\$6,010.00	\$5,648.00
19	\$2,264.50	\$1,952.50	\$6,323.50	\$5,961.50
20	\$2,367.00	\$2,055.00	\$6,637.00	\$6,275.00
21	\$2,469.50	\$2,157.50	\$6,950.50	\$6,588.50
Each Add'l Hour	\$102.50	\$102.50	\$313.50	\$313.50

Tuition, Fees, and Charges Descriptions

Tuition, fees, and charges are assessed to students based on semester credit hours (SCH), a set charge per semester, or specific services. They are either **required** by all students, charged to everyone taking **specific** courses or anyone receiving **specific** services, or charged only for **voluntary** products or services.

1. Undergraduate Resident Tuition: \$42 per SCH (\$120 minimum). Set by Board of Regents per statute (54.051). Required
2. Undergraduate Non-Resident Tuition: \$253 per SCH. Set by Texas Higher Education Coordinating Board per statute (54.051). Required
3. Designated Tuition: \$42 per SCH. Set by Board of Regents per statute (54.0513). Required
4. Alternative TASP Remedial Charge: \$75 for students who fail the TASP exam in a particular area but do not need course-based remediation (55.16). Specific
5. Application Charge: \$25 to defray costs incurred in processing applications for undergraduate admissions (55.16). Specific
6. Audit Charge: \$20 for enrolled U.T. Arlington students, \$100 for non-enrolled students to defray administrative costs incurred in registering non-credit participants in scheduled classes (55.16). Voluntary
7. Campus and Community Involvement Records Charge: \$5 to defray cost of establishing and maintaining a Campus and Community Involvement Record (55.16). Voluntary
8. Career Services Charge: \$25 for 10 files, \$1 for each additional file to defray costs of placement registration, software and software license fees and services (55.16). Specific
9. Catalog Charge: \$3 (\$6 if mailed) to defray costs of printing and mailing catalogs (55.16). Voluntary
10. Check Cashing Charge: \$0.25 per check or 1 percent of check amount (whichever is greater) to defray costs associated with providing check cashing (55.16). Voluntary
11. Computer and Information Technology Charge: \$12 per SCH to provide for the development of campus computer and network facilities for academic programs (55.16). Required
12. Credit by Examination Charge: \$20-\$100 per course to defray costs of course materials and costs associated with administering and scoring the tests (55.16). Voluntary
13. Course Charges: \$2-\$200 per course in addition to required tuition, fees, and charges to defray costs of course supplies, materials, or individual coaching or instruction (55.16). See individual course descriptions for exact amounts. Specific
14. Delinquent Accounts Receivable Charge: \$10 per month to defray cost of maintaining a unified delinquent accounts system for registration fees and charges, housing, and fines, including mailings and referral to collection agencies (55.16). Specific
15. Distance Learning Charge: \$20-\$200 per course to defray cost of providing distance learning courses as defined by the Texas Higher Education Coordinating Board (55.16). Specific
 - a. Engineering Internet Charge: \$75 per SCH to defray costs of producing and offering engineering internet courses (55.16). Specific
 - b. TAGER Charge: \$75 per SCH to defray cost of material and operation related to courses taught in TAGER network (55.16). Specific
 - c. TeleCampus Charge: \$56-\$213.50 to defray cost for courses offered through the U.T. System TeleCampus (55.16). Specific
 - d. Video Tape Charge: \$142 per SCH to defray costs of video tape delivery of graduate engineering courses (55.16). Specific
16. Duplicate Diploma Charge: \$20 to defray costs of duplicate diploma and diploma cover (55.16). Voluntary
17. English Tutorial Clinic Charge: \$25 per course to defray costs of providing a tutorial clinic for students enrolled in English 0300 and 0301 (55.16). Specific
18. Field Placement Insurance Charge (55.16) Specific
 - a. School of Social Work: \$12 per course
 - b. School of Nursing: \$7.25 per semester in fall and spring
19. Field Trip Charge: varies based on actual cost (55.16). Specific
20. Graduation Charge: \$15 to defray costs of diploma, diploma cover and other costs associated with graduation (55.16). Specific
21. Health Insurance Charge: variable (to match premium for approved U.T. System student insurance plan) to defray costs of mandatory insurance for international students holding non-immigrant visas and living in the United States (55.16). Specific
22. ID Activation Charge: \$10 per semester for activation of a student ID card (55.16). Required
23. ID Card Replacement Charge: \$10 to defray administrative costs of reissuing student ID cards (55.16). Specific
24. Intercollegiate Athletics Fee: \$8.10 per SCH (\$110 maximum) for the funding of intercollegiate athletics (54.5121). Required
25. International Education Fee: \$1 per semester for an international education financial aid fund to assist students participating in international student exchange or study programs (54.5132). Required
26. International Student Application Charge: \$50 to defray costs of the individualized credential evaluations required in international student admission decisions (55.16). Specific
27. International Student Service Charge: \$50 per semester for services provided to international students by the International Office (55.16). Required
28. Installment Tuition Handling Fee: \$10 per billing (\$20 maximum) to cover costs related to providing installment payment option (54.007). Specific
29. Instrument Users Charge: \$10 - \$55 to defray costs of replacement and maintenance of equipment (55.16). Specific
30. Laboratory Fees: Certain laboratory courses require mandatory laboratory fees that vary from \$2 to \$30 and must not exceed the cost of actual materials and supplies used by the student. See the individual course descriptions for exact amount (54.501). Specific
31. Late Registration Charge: \$25 per registrant to defray costs associated with keeping registration open after published times (55.16). Specific
32. Library Charges: variable (see below) to defray handling costs associated with computer searches, processing lost items, and items returned after the due date and costs of other Library operations (54.504 & 55.16). Specific and Voluntary
 - a. Overdue Charges
 - i. Recalled Books: \$2 per day (\$24 maximum).
 - ii. Regular Check-Out: \$0.25 per day (\$25 maximum).
 - iii. Reserve Items: \$1.20 per hour (\$50 maximum).
 - b. Lost or Damaged Items: \$35 processing fee plus any fines accrued and actual cost of book.
 - c. Inter-Library Loan Late Charge: \$2 per day (\$50 maximum).
 - d. Preservation on Photo Print Orders: \$4 per print.

- e. Special Collections Charge: \$50 for 1-25 images; \$100 for 26+ images.
- f. Special Collections Photocopy Charge: \$0.15 per page for books and bound materials; \$.025 per page for manuscripts; \$0.35 per page for clippings.
- 33. Library Service Charge: \$6.50 per SCH for the enhancement of library collections and services (55.16). Required
- 34. Locker Rental Charge: \$3-\$25 to defray administrative lock and key costs (55.16). Voluntary
- 35. Math Clinic Charge: \$15 per course to defray costs of providing a tutorial clinic for students enrolled in math courses (55.16). Specific
- 36. Medical Services Fee: \$35 per semester for providing medical services to students (54.50891). Required
- 37. Multimedia Charge (College of Business Administration, College of Engineering, and School of Nursing): \$3 per course to defray the cost of repairing, replacing and maintaining multimedia equipment (55.16). Specific
- 38. Music Instrument Charge: \$25 to defray costs of replacement and maintenance of musical instruments (55.16). Specific
- 39. Orientation Charge: \$20-\$25 per student to defray costs associated with new student advising and preregistration (55.16). Specific
- 40. Recreational Facility Fee: \$9 per semester to defray the costs to finance, construct, renovate, improve, equip and maintain recreational sports facilities and to operate recreational programs at the University (54.5122). Required
- 41. Registration Charge: \$5 per semester to defray the costs of a telephone and Internet registration system (55.16). Required
- 42. Reinstatement Charge: \$150 to defray processing costs and lost revenue associated with reinstatement of a student due to failure to complete necessary financial aspects of registration when due. Reinstatements approved on a limited basis (55.16). Specific
- 43. Returned Check Charge: \$25 per check to defray administrative costs for reprocessing or collecting checks written on insufficient funds (54.504 & 55.16). Specific
- 44. Sponsored Student Charge: \$200 per semester to defray costs associated with international sponsored student advising, registration and monitoring (55.16). Specific
- 45. Student Service Fee: \$9 per SCH (\$108 maximum) to fund student-related services such as recreational activities, student government and organizations, and student publications (54.503). Required
- 46. Student Union Fee: \$39 per semester for finance, construction, operation and maintenance of the student union building and its programs (54.515). Required
- 47. Teacher Certification Deficiency Plan Charge: \$25 per plan for U.T. Arlington graduates and \$35 per plan for non-U.T. Arlington graduates to defray costs associated with the preparation and issuance of the plans (55.16). Voluntary
- 48. Telephone Registration Facsimile Charge: \$2 to defray costs associated with providing long distance fax service within the U.S. (55.16). Voluntary
- 49. Test Charges: \$5-\$125 to defray costs associated with administering and scoring institutional/academic tests (55.16). Specific
- 50. Transcript Charges: \$5 to defray costs of retrieving, duplicating and mailing transcripts (55.16). Voluntary

Other Fees, Charges, and Expenses

Mav Express Card Charge

As noted under Tuition, Fees, and Charges, each student at U.T. Arlington is required to pay a \$10 Mav Express Card Activation charge for the fall, spring, and 11-week summer semesters. The 5-week summer session, Maymester, and Wintersession are \$5 each. The Mav Express Card is used for checking books from the Library, cashing checks at the University Bookstore, University Center or Bursar Services, as well as for admission to various University activities such as athletic events and for other situations in which personal identification is required. As an option, a student may choose to deposit money on the Mav Express Card. This debit feature is called MAV M\$NEY. Students may use MAV M\$NEY at Dining Services, Bursar Services, University Center, University Bookstore, vending machines and many other locations on campus. The Mav Express Card is a permanent card. As a student registers for a semester, the card is automatically validated. It is not necessary to obtain an additional Mav Express Card unless the student loses or destroys the card. The replacement charge for a lost or destroyed card is \$10.

General Property Deposit

The *Texas Education Code*, Section 54.502(a), directs that "an institution of higher education shall collect a reasonable deposit not to exceed \$10 from each student to insure the institution against losses, damages and breakage in libraries and laboratories. The deposit shall be returned on the withdrawal or graduation of a student, less any loss, damage or breakage caused by the student." The deposit collected at The University of Texas at Arlington is \$10.

Deposits are refunded automatically at the end of the semester to students who graduate or withdraw. Deposits are refunded by request at the end of the semester to students who neither graduate nor withdraw, but do not plan to return. Property deposits which are dormant for four years are forfeited into the Student Deposit Scholarship Fund.

Parking Decal Charge

All students who drive to campus need a permit to park legally on campus. During registration, students should indicate that they need a permit for their vehicle. Students registering by telephone or on the Web will be mailed a permit to their current University mailing address. If students do not receive their permit by the first day of class, they will need to pick up a pass at the Parking Office, 700 S. Davis Drive. 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. If the permit is not returned, a refund cannot be given and the student is responsible for full payment. Students who lose or misplace their permits will be charged full price for a replacement.

Students are responsible for picking up a copy of the Rules and Regulations booklet that contains campus parking policies. The University Police Parking Office is open 7:30 a.m.-7 p.m. Monday-Thursday, and 7:30 a.m.-5 p.m. Fridays. Persons with disabilities will need to provide the appropriate documentation and should obtain their parking permits from the University Police Parking Office.

For additional parking information, call 817-272-3907 or visit the Web site www.uta.edu/police/.

The following charges will be assessed for vehicles at the initial period of registration:

TUITION, FEES AND CHARGES

Fall Semester	\$60.00
Wintersession	\$41.00
Spring Semester	\$41.00
Maymester	\$23.00
Summer Sessions	\$23.00

Maverick Parking Garage

2001-2002 Parking Passes*

Day Student: \$350 per semester

Night Student: \$140 per semester (official meeting time of all classes must be 5:30 p.m. or later)

* In addition to the semesterly rates above, a \$20 gate card deposit is required.

2002-2003 Parking Passes

Charges not available at time of printing.

Hourly parking is subject to availability on a first-come, first-served basis. The cost is \$2.20 for the first hour and \$1.60 for each additional hour, with a maximum of \$7 per day. After 5 p.m., parking is \$1.75 per hour, with a maximum of \$3.50.

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 U.T. 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.

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.

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 \$5 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, Fee, and Charge Exemptions

State law provides several exemptions for tuition, fees, and charges. Students qualified for a reduced rate in any of the following categories must have that eligibility certified prior to registration.

1. Non-residents may qualify for resident tuition rates if eligibility in the following categories is certified prior to registration.
 - a. Professors employed at least one-half time and teaching/research assistants and associates employed at least one-half time in positions which relate to their degree programs, as well as their spouses and children.
 - b. Holders of certain competitive scholarships of \$1,000 per year or more awarded through The University of Texas at Arlington scholarship committee.
 - c. Individuals or a member of a family who have located to Texas as an employee of a business or organization that became established in this state as part of the program of state economic development and diversification if such individual meets the terms and conditions set forth in Section 54.052(h) of the *Texas Education Code*.
 - d. An officer, enlisted person, selectee or draftee of the Army Reserve, Army National Guard, Air National Guard, Air Force, Air Force Reserve, Navy, Navy Reserve, Marine Corps, Marine Corps Reserve, Coast Guard or Coast Guard Reserve of the United States, who is assigned to active duty in Texas, and the spouse and children of such an officer, enlisted person, selectee or draftee, if they meet the terms and conditions set forth under Section 54.058 of the *Texas Education Code*.
2. Section 54.203 of the *Texas Education Code* provides that Texas veterans may qualify for exemption from tuition and some fees and charges provided they:
 - a. Had Texas resident status at the time they entered the service and are currently on Texas resident status for tuition assessment.
 - b. Had active military duty (excluding training) for more than 180 days during specified periods of the Cold War; the Vietnam, Grenada, Lebanon and Panama eras; and the Persian Gulf War.
 - c. Are honorably discharged from active service.
 - d. Are not eligible for Pell Grant, SEOG (Supplemental Education Opportunity Grant), or Veterans Educational Benefits under federal legislation which exceed the value of the exemption.

3. Section 54.204 and 54.2041 of the *Texas Education Code* provides an exemption from tuition and some fees and charges for disabled firefighters and peace officers and their children. To qualify for this exemption, the applicant must:
 - a. Be a peace officer permanently disabled in the line of duty and be a Texas resident.
 - or
 - b. Be under 21 years of age and be a child of a (1) full-paid or volunteer firefighter; or (2) full-paid municipal, county or state peace officer or custodian of the Department of Corrections or game warden disabled in the line of duty.
4. An exemption from tuition and some fees and charges is provided for Texas residents who are blind or whose sense of hearing is nonfunctional as provided under Section 54.205 of the *Texas Education Code*.
5. Students under 25 years of age who receive a majority of support from a parent who has been classified by the Defense Department as a prisoner of war or missing in action at the time of their registration may be exempt from tuition and some fees and charges as provided by Section 54.209 of the *Texas Education Code*.
6. Children of members of the armed forces who were killed in action, who died while in service, who are missing in action, and whose death is documented to be directly caused by illness or injury in connection with service in the armed forces in World War II, the Korean Conflict, or the Cold War, and orphans of the Texas National Guard killed since January 1, 1946, while on active duty may be exempt from tuition and some fees and charges as provided by Section 54.203 of the *Texas Education Code*.
7. Certain students who were in foster or other residential care or who were dependent children receiving AFDC during their last year of public high school in Texas may be exempt from payment of tuition, fees, and charges if they meet the terms and conditions set forth under Sections 54.211 and 54.212 of the *Texas Education Code*.
8. Senior citizens (persons age 65 or older) may enroll on a space available basis for up to six credit hours per semester without payment of tuition as provided in Section 54.210 of the *Texas Education Code*.
9. Eligible educational aides may be exempt from payment of tuition, fees, and charges, other than class or laboratory fees, if they meet the terms and conditions set forth under Section 54.214 of the *Texas Education Code*.
10. Students admitted into the Early Admission Program and simultaneously enrolled in high school and U.T. Arlington (dual enrollment) may be exempt from the payment of certain fees and charges.
11. The highest ranking graduate of each accredited high school (valedictorians) may be exempt from the payment of tuition during both semesters of the first regular session immediately following their graduation as provided in Section 54.201 of the *Texas Education Code*.
12. The Employee Fee Waiver is available, per section 54.5035 of the *Texas Education Code*, to U.T. Arlington faculty and staff members employed in benefits eligible positions. Any employee with an appointment of 4.5 months or more, paid not less than 50 percent time from any source of University funds, and not employed in a position requiring student status as a condition of employment is eligible for this fee waiver.

Payment of Tuition, Fees, and Charges

Tuition, fees, and charges are payable at the time of registration. Financial aid recipients must secure their registration by other means if their aid has not arrived prior to the due date. **Semester due dates are published at www.uta.edu/fees.**

Most University debts may be paid at Bursar Services located in Room 130, Davis Hall, and on the first floor of the University Center. The University accepts cash, checks, credit cards (MasterCard, Visa, DiscoverCard, American Express) and money orders. Payment may be made by credit card or ACH transfer from a checking or savings account at the NetPay online billing and payment Web site, www.uta.edu/makepayment.

Bursar Services Office Hours

Monday-Thursday: 8 a.m.-7 p.m.

Fridays: 8 a.m.-5 p.m.

Closed weekends and holidays

Twenty-four-hour-access lock boxes are located adjacent to both Bursar Services locations if dropping off payment by check. Payment by credit card may be made by telephone using SAM at 817-272-2726.

It is the students' responsibility to withdraw from classes they do not plan to attend. Failure to make payment, stopping payment on a check for registration fees or not attending classes does not withdraw students from the University nor release their financial obligation. Please refer to the current Schedule of Classes for the appropriate withdrawal refund/obligation percentage.

Installment Tuition Plan

For fall and spring terms, the Installment Tuition Plan is available to all students and is chosen by paying at least one-half of the total current semester tuition, fees, and charges before classes begin. Prior semester registration charges must be paid in full. The remaining balance will be billed on the Registration Account statement in two equal amounts. The service charge for choosing this option is \$10 for each installment (maximum \$20) and will be added to the account. Questions may be directed to Bursar Services at either 817-272-2172 or 817-272-5690.

The following quotation from Section 54.007 of the *Texas Education Code* applies to installment payments due: "A student who fails to make full payment of tuition, fees, and charges, 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."

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.

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
- Designated tuition at the appropriate rate
- 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.

Other Public Institutions of Higher Education

When a student registers at more than one public institution of higher education in Texas, the student shall pay the full tuition charges to the first institution at which the student is registered. A student who is first registered at another institution must present a copy of the receipt from that institution to Bursar Services when registering at U.T. Arlington. Any reduction in tuition per the following guidelines will be refunded to the student approximately one month after the beginning of the semester.

- If the minimum tuition at the first institution is the same as or *greater* than the U.T. Arlington minimum, the amount charged for tuition will be the U.T. Arlington hourly rate.
- If the minimum tuition at the first institution is *lower* than the U.T. 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 U.T. Arlington hourly rate.
- All other applicable fees and charges will be assessed.

Estimated Expenses

The Student Financial Aid Office estimates that average expenses for a full-time Texas resident student for two semesters at U.T. Arlington are:

Tuition, Fees, and Charges	\$3,200
Books and Supplies	600
Housing and food	<u>4,600</u>
Total	\$8,400

(Students residing on campus or at home can probably lower the housing and food cost significantly.)

Residency Regulations

Resident classifications are determined in accordance with Title 19, Chapter 21, Subchapter B of the *Texas Administrative Code* and the rules of the Texas Higher Education Coordinating Board for determining residence status. Except as specifically provided by law, an individual classified as a non-resident student must pay tuition, fees, and charges required of non-resident students. Students may access the Coordinating Board's rules at the following Web site: www.theccb.state.tx.us/rules/rulemain.htm

An independent individual 18 years of age or older who moves to Texas and is gainfully employed in Texas for 12 months prior to enrolling in an institution of higher education is entitled to classification as a resident student unless the individual is in Texas for some purpose other than establishing residence in the state. A student enrolling in an institution of higher education prior to having lived in Texas for 12 months immediately preceding the time of enrollment will be classified as a nonresident student.

The residence of a dependent who is under 18 years old is generally the residence of the parent with whom the individual lives. The residence of a dependent 18 years of age or older is the residence of the parent who claims the individual as a dependent for federal income tax purposes.

After living in Texas for at least 12 months, a nonresident student may be reclassified as a resident student if business and personal facts or actions are unequivocally indicative of a fixed intention to reside permanently in Texas. A nonresident student 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 claiming resident status must provide documentation to confirm that they have a legal right to be classified as resident students. Students must also affirm under oath that they are entitled to be classified as residents for purposes of tuition. Foreign students living in the United States under a visa permitting permanent residence, and aliens who are permitted by Congress to adopt the United States as their domicile while they are in this country, have the same privilege of qualifying for Texas resident status for tuition purposes as do U.S. citizens. Individuals who obtain permanent resident status while in Texas must wait a minimum of 12 consecutive months from the date on which resident status was granted before they may apply for reclassification.

Generally, a student attending The University of Texas at Arlington who is not classified as a resident student will be charged non-resident tuition. Certain nonresident students, however, are entitled to pay tuition and other fees required of Texas residents. 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

residence advisor in the Graduate School and have the student's classification officially determined. All requests for reclassification should be submitted to the Graduate School at least 30 days prior to the registration period 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. **All withdrawals once classes begin as well as add/drops or tuition adjustments done after the Census Date** will be computer audited 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. Refunds will be applied to any University charges, with any remaining balance being mailed to the student.

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. 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

Total Withdrawal from School

A student who officially withdraws through the Student Administration section of the Registrar's Office will receive a refund according to the schedule below.

1. A student who withdraws prior to the first class day will receive a 100 percent refund.

2. If the foregoing condition is not met, then the refund shall be as shown below.*

Fall and Spring Semesters

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

Summer Sessions

During class days 1 through 3	80%
During class days 4 through 6	50%
After sixth class day	no refund

Intersessions

On first class day	80%
On second class day	50%
After second class day	no refund

* Class days noted are official University class days. They are not the individual student's class meeting days.

3. Parking refunds must be applied for separately at the Parking Office, 700 S. Davis Drive.

Return of Title IV Aid Funds

Effective with the fall semester of 2000, a federally mandated statutory schedule must be used to determine the amount of federal aid funds students have earned when they cease attendance based on the period the students were in attendance. The amount of federal aid earned is the percentage of federal aid that has been earned, multiplied by the total amount of federal aid that was disbursed for the period. Any funds this pro-rata schedule show to be unearned must be returned to the aid programs by the students. This schedule will be used until 60 percent of the period has passed, after which all aid funds will be considered to have been earned.

Dropping Course(s) but Continuing Enrollment

All the additional costs that apply to courses dropped before the Census Date, when the student continues enrollment in other course(s), will be refunded.

Payment of Refunds

Refunds cannot be made until a computerized audit of tuition, fees, and charges has been performed; thus, refunds normally cannot be issued until approximately six weeks after a semester begins in the fall and spring semesters, sooner in short semesters. Refunds are credited to the student's registration account, with any residual mailed to the student's designated mailing address.

Refunds for recipients of certain types of financial aid administered through the University will be applied to the accounts from which the funds were received.

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

Refunds will not be applied to any non-registration related university account charges without written permission from the student. Authorization for refund application may be signed at Financial Aid or Bursar Services in Davis Hall or the University Center.

Financial Aid

www2.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 those in this country on other than a temporary visa. A minimum of half-time enrollment with the intent of obtaining a degree or certificate and the maintenance of satisfactory scholastic 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 federal financial aid. In addition, effective Jan. 1, 1998, the selective service requirement is also applicable to students applying for financial assistance funded by State revenue.

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

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, U.T. 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 Financial Aid Office. 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 Perkins Loan, Federal Stafford Loan, Federal PLUS and Texas Public Education Grants. Information regarding eligibility and application procedures for these programs is available from the Financial Aid Office.

Aid applicants may check the status of their financial aid applications by calling the SAM voice response system at 817-272-2115.

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 6-12 weeks for completion and is governed by the availability of funds. The FAFSA can be obtained from any local college or high school counselor.

Loans Not Based on Financial Need: Federal PLUS (Parent Loan for Undergraduate Students) loans are available to parents to finance their dependents' educational costs. Application is made by filling out the U.T. Arlington PLUS application and a bank application. Although it is possible to apply for a loan through the 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 Stafford Loans. Application is made by completing a Free Application for Federal Student Aid (FAFSA) and a bank application. Further information is available from the Financial Aid Office.

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 Financial Aid Office 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 Financial Aid Office 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 Financial Aid Office 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 scholastic progress and must pay out-of-state tuition to be eligible.

Enrollment Loans

Enrollment Loans are available to students who are unable to pay their registration fees as long as funds are available and the borrower

meets minimal underwriting requirements. Students must be enrolled, pay a \$25 loan origination fee and have a 2.0 GPA. Enrollment Loans are available during specified times at Bursar Services in Davis Hall and the University Center. Refer to the Schedule of Classes published each semester for specified times. For more information, call 817-272-2172 or 817-272-5690.

Student Employment Services

Located at the west entrance of the University Center, Student Employment Service can help students obtain suitable off-campus

employment. The staff maintains daily communication with Metroplex employers who list thousands of jobs every year. Also, students who are eligible for college work-study can be referred to off-campus agencies which have jobs related to their majors.

Counselors advise students to plan at least four consecutive hours for a job, either in the morning or afternoon. In addition to the regular job referral service, the staff has information of continuous listings, summer camps, resorts, federal and state parks, and certain overseas summer employment opportunities.

Any persons currently enrolled or accepted for admission to U.T. Arlington, or their spouses, may use the service. For more information, call Student Employment Services at 817-272-2895.

Academic Regulations

General

Any student who registers to attend classes at The University of Texas at 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 the Registrar or change it through SAM, U.T. Arlington's automated voice response system, by calling 817-272-2726, or by accessing the Web at www.uta.edu.

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 U.T. Arlington or concurrently at U.T. 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 Session and Maymester 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 Provost 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). 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.

Observance of Religious Holy Days

A student who misses an examination, work assignment or other project because of an observance of a religious holy day will be given the opportunity to complete the work missed within a reasonable time after the absence provided the student has properly notified each instructor. To meet the proper notification requirements, students must notify each instructor in writing of classes scheduled on the dates they will be absent in observance of a religious holy day.

Notification must be made within the first 15 class days and either personally delivered, acknowledged and dated by the instructor, or sent certified mail, return receipt requested. The student may not be penalized for these excused absences, but the instructor may appropriately respond if the student fails to complete satisfactorily the missed assignment or examination within a reasonable amount of time after the excused absence.

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.

Academic Probation and Dismissal

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

A student must maintain a minimum cumulative grade point average (GPA) at The University of Texas at 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 U.T. Arlington and is shown in the Table of Academic Standards.

Students on academic probation may not take more than 14 semester hours without permission.

Students on academic probation cannot hold office in any club or organization, represent U.T. 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 U.T. Arlington, including credit by examination, correspondence and extension, for which a letter grade is given. (The symbols X, W, P and Z are not considered in calculating the grade point average.) Grades earned at any institution other than U.T. Arlington are not used in calculating the University grade point average, but semester hours of transfer credit accepted by U.T. 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 X), 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 Dismissal

Before a student is dismissed from the University, the student is on probation. During the semester of reinstatement, the student must have a cumulative GPA that exceeds the values in the Table of Academic Standards to avoid leading to a second dismissal.

Students placed on academic dismissal for the first time will be reinstated after not having attended U.T. Arlington for one regular semester (fall or spring).

4. Second and Subsequent Academic Dismissals

Students placed on academic dismissal for a second or subsequent time may be reinstated after not having attended U.T. Arlington for a 12-month period. After this time period, students may petition for reinstatement to the dean of the college/school in which they are majoring. Undeclared majors petition the director of the University Advising Center. Petition forms may be obtained at the deans' offices, the University Advising Center and the Office of Admissions. 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.

5. 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 U.T. 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 U.T. Arlington. If a student earned a grade of less than C in a course taken at U.T. Arlington, the student may take that course or its equivalent at another college or university for transfer to U.T. Arlington only with the prior written approval of the student's major department chair or academic dean.

6. Grade Replacement Policy

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 U.T. Arlington. Students must file their intention to replace a grade with the registrar by the Census Date. All withdrawals after the Census Date will be considered an attempt, and the initial grade will be used. 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 may not be used as a replacement. Individual colleges and schools may limit this policy.

7. 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 grades on the TASP test will be graded on a pass-fail basis.

8. 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. In

dividual 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 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, 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.

9. 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 U.T. Arlington for which a letter grade is recorded unless the course is repeated under the Grade Replacement Policy. Courses in which the symbol X, W, P 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
X	Incomplete	0
W	Withdrawn	0
P	Pass	0
Z	No Credit (freshman English only)	

Grade Scores

Although a grade of D is sufficient for an undergraduate to earn credit in a course, a cumulative University grade point average of at least 2.00 (C) is necessary for satisfactory progress toward a degree. A grade of X (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 revert automatically to an F. As long as the grade is carried as an X, 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 X remains the grade of record. A course for which the symbol X, W, P 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.

Grade Reports

Semester Reports from the Registrar: Grade reports are sent to all students at the end of each regular semester, intersession and summer session. Reports are mailed to the student's current mailing address on file in the student data base.

Midsemester Reports for First-Year Students: First-time in college students will receive a midsemester grade report. The midsemester grade is not recorded on the student's permanent record. It is for information purposes only and is intended to benefit the student, parents, advisor 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.

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 return to undeclared status provided they have not exceeded the limits for total hours attempted and hours attempted in residence.

Students dismissed from a degree program and unable to return to pre-major or undeclared status are not permitted to re-enroll unless and until they are accepted into another degree program. Pre-major students who have exceeded the 45/75 rule (see p. 19) need the approval of their college/school dean, and undeclared students need the approval of the director of the University Advising Center to enroll.

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

Pre-major and Undeclared Students on Academic Probation

Pre-major students on academic probation may not take more than 14 semester hours without permission of their college/school dean, and undeclared majors on academic probation may not take more than 14 semester hours without the approval of 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.

Schedule Changes (Adds and Drops)

Adds and drops may be made during late registration either by SAM, by the Web or in person in the academic department offering the course. Drops may continue in person through the 12th week of class. Students are responsible for adhering to the following regulations concerning adds and drops. These rules apply to regular semesters and to equivalent time limits in summer sessions as noted on the summer session calendar.

- A student may not add a course after the end of late registration.
- No grade is given if a student drops a course before the Census Date of that semester.
- A student may drop a course with a grade of W during the first six weeks of class.
- From the seventh week of class through the 12th week of class, a student may drop a course with a grade of W if passing or a grade of F if failing.
- A student may not drop a course after the 12th week of class.
- The dean of the college or school in which the student is majoring may require a student to drop a course at any time upon the recommendation of the instructor and the concurrence of the department chair.
- Students wanting to drop all courses for which they are enrolled must withdraw from the University. Students should follow the procedure below in the Withdrawals section).

Withdrawals (Resignations)

A student who wishes to withdraw (resign) voluntarily from U.T. Arlington before the first official University class day may do so by using SAM or the Web. On or after the first official University class day, a student must complete the proper resignation form in the Registrar's Office. A student who withdraws after the sixth week of class in a regular semester or the equivalent time in a summer session will be awarded a grade of W if passing a course or a grade of F if failing a course. A student may not withdraw (resign) after the 12th week of class in a regular semester or the equivalent time in a summer session as noted on the summer session calendar.

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 U.T. Arlington

**Based on U.T. 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 U.T. 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

Academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form at The University of Texas at Arlington. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University.

"Academic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts." (Regents' Rules and Regulations, Part One, Chapter VI, Section 3, Subsection 3.2., Subdivision 3.22)

Institutional procedures regarding charges of academic dishonesty are outlined in Part II, Chapter 2, of the *Handbook of Operating Procedures* of The University of Texas at Arlington. Copies of the handbook are available at more than 75 locations on campus, including the Student Congress Office, the Library and departmental offices. The handbook also may be accessed at the following Web site: <http://ais.uta.edu:80/policy/hop.shtml>

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 U.T. Arlington are classified in accordance with the number of semester hours earned. Hours earned are interpreted as hours passed at U.T. 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. To be in good standing, a student must have a 2.0 grade point average or better on work attempted at U.T. Arlington.
- **Degreed:** One who has earned a bachelor's degree or higher and is enrolled as an undergraduate.

Student Educational Records Policy

Students may have access to their own educational records during regular office hours by contacting the person or the office that maintains these records. A student must appear in person or send a written request for a copy of the record. Another person may not see a student's educational records unless written permission is given by that student or a statutory exception is met. One exception allows a parent or guardian who is providing one-half or more of the student's financial support to obtain the educational record. Some U.T. Arlington faculty and staff members have access to student educational records in the performance of their regular duties. If an educational record contains information on more than one student, then students desiring access may review only the parts relating to themselves.

Students may have official copies of their U.T. Arlington transcripts mailed to other institutions, or they may obtain copies for their own use. A student must sign a request form in the Registrar's

Office or send a signed, written request to release the transcript. Requests will not be accepted by telephone or from persons other than the student unless the student has given written permission.

The U.S. Family Educational Rights and Privacy Act of 1974 provides that a university may release directory-type information about students. The information released may include the following items: the student's name, address, telephone number, date and place of birth, major field of study, participation in officially recognized activities and sports, weights and heights of members of athletic teams, dates of attendance, degrees and awards received, and the last educational institution attended. Each semester, U.T. Arlington publishes a student directory that is available to students and the public. It contains the following information: the student's name, classification, major field of study, address and telephone number. The act states that a student has the right to withhold this information from the public and from other students. A form to withhold this information is available in the Registrar's Office. Students also may use SAM, the University's automated voice response system, to withhold the information by calling 817-272-2726. Unless this is done before the Census Date of the semester, the data about a student will be released as public information.

Students have the right to challenge the content of their educational records to ensure that the records are not inaccurate, misleading or in violation of other rights of the students. This allows students to correct inaccurate or misleading information, or permits written explanation from students 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 asked to provide their social security number. It serves as the basis for identification of various University records. Although this is optional for admission purposes, it is required if the student applies for student financial assistance. The usage will vary according to the requirements of the office in which the record is located.

Research papers and theses written by students will be made available to interested members of the public.

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

Student Right-to-Know and Campus Security Act

Campus Security

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.

Crime statistics may be accessed on the University Police Web site at www.uta.edu/police/cp2.htm. Crime statistics from U.T. Arlington or any other university also may be accessed on the U.S. Department of Education's Web site at www.ope.ed.gov/security. To receive a printed copy of the most recent Campus Safety Report, contact the Police Department at 817-272-3381 or Box 19229, Arlington, TX 76019.

Graduation Rates

In 1999-2000, the graduation rate was 30.6 percent for students who entered The University of Texas at Arlington in 1994 on a full-time basis as first-time, degree-seeking freshmen.

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. Before being admitted to a degree program, students must complete:

30 credit hours of the University's core curriculum (including credit by examination and transfer credit) and 30 credit hours at U.T. Arlington (including core credit hours but not including credit by examination)

or

40 credit hours of the University's core curriculum (including credit by examination and transfer hours) and 12 credit hours at U.T. Arlington (including core credit hours but not including credit by examination)

Degree programs may require students to complete additional courses or hours in residence prior to applying for admission.

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 Registrar's Office 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 when 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.

The Core Curriculum

The 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 U.T. 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 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 (level of college algebra or higher).

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 or the student's major department.

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 U.T. 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 Oral Presentations

Students should 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 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

Based on a Texas legislative ruling, freshman students who first enrolled in a college or university in fall 1999 or a later semester will face a higher tuition rate if attempted undergraduate hours go beyond a designated limit. A student in that status will be required to pay nonresident tuition rates when attempted semester hours exceed by 45 or more the hours required for the student's declared baccalaureate degree.

This ruling applies to any grade, including a W (withdrawn) or WF (withdrawn failing), that is received from a Texas public institution of higher education. Semester hours earned at a private or an out-of-state institution are not counted toward the limit. Some other exceptions may apply. Additional information about the limit on attempted undergraduate semester hours may be obtained from the Graduation section in the Registrar's Office.

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 24 of the last 30 semester hours required for a bachelor's degree
 - (c) 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 U.T. 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. (The College of Business Administration 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.
- Only the required four semester hours of exercise and sport activities courses may be counted for graduation. Additional activity courses taken will not be calculated in the student's grade point average.
- 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 U.T. 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.

Graduation

Graduation Procedures

Recognition ceremonies are held three times yearly at the end of the fall and spring semesters and at the end of summer. 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 resident student must apply for the degree by filing an application with the Office of the Registrar, preferably prior to registration for the final semester. A student who is eligible to graduate at the end of the fall or spring semester must make application no later than two months before the end of the semester. A summer candidate must make application no later than six weeks prior to the end of the final summer semester.

Students who complete degree requirements at another institution must file an application for graduation no later than two months prior to the graduation date of the semester in which they plan to graduate. An official transcript listing the courses completed must be received by the Registrar's Office by a date designated by the office. Failure to comply with these conditions may require the student to register in the following semester to be certified for graduation.

A graduation fee is charged.

Graduation With Honors

Graduating seniors who meet the following conditions will be awarded the appropriate honors designation:

- A student must complete at least 60 semester hours at U.T. Arlington.
- The last 60 hours of resident credit will be used in the grade point average calculation (will include all hours completed in first and final semester that contain the last 60 hours).
- A student in an approved combined bachelor's/master's degree program is required to count the graduate course work used for the bachelor's degree in the grade point calculation. (Other graduate course work will not be counted.)
- One of the following grade point average categories for honors must be obtained:
 - Cum Laude: 3.50-3.69 GPA
 - Magna Cum Laude: 3.70-3.89 GPA
 - Summa Cum Laude: 3.90-4.00 GPA

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.

University Libraries

Box 19497 • 817-272-3000 • www.uta.edu/library

The U.T. Arlington Libraries are one of the most important resources on campus for teaching and research. In addition to over 1 million physical volumes on the shelves, the Central Library, the Science and Engineering Library, and the Architecture and Fine Arts Library contain a rapidly growing collection of periodicals, documents, technical reports, microfilm, microfiche, motion pictures, sound recordings, videotapes, filmstrips, computer disks, and maps. They have access to approximately 15,000 electronic journals. The Central Library makes available group study rooms, graduate-study carrels and faculty carrels.

The Libraries provide a full array of modern technological access to print and electronic information through PULSe, the online catalog for the U.T. Arlington Libraries. Databases and full-text journals may be reached by any U.T. Arlington IP connected computer on campus, such as faculty offices, Office of Information Technology (OIT) computer labs or dorm data ports, or any library computer, and off campus through the university modems or via proxy server.

The Libraries provide remote access to many electronic databases and online journals. Among the more popular databases are: Academic Universe (Lexis/Nexis), which provides current news and law information; ABI/ Inform and Periodicals Abstracts Research II, which indexes more than 1,000 journals in the business and management areas; ACM Digital Library indexes journals and proceedings of the Association for Computing Machinery; Dow Jones Interactive provides current news from journals and newspapers; IDEAL consists of full-text journals published by Academic Press; IEEE is a vast collection of engineering journals; netLibrary is searchable full-text access to thousands of electronic books; OVID Nursing Collection provides access to nursing articles; Periodical Abstracts Research (PAR) is access to general news and social sciences; Project Muse and JSTOR are collections of full-image journals in the humanities and social sciences; and ScienceDirect provides full-text Elsevier journals.

Staff in the Central Library's Information Services Department, the Science and Engineering Library, the Architecture and Fine Arts Library, and the Special Collections Division provide assistance using the Libraries' collections. The business librarians now have an office in the Business building to assist students and faculty with specialized business databases and collections.

The Central Library is responsible for the humanities, social sciences, business, nursing, education, geology, legal materials, and government publications. The Government Publications and Maps Collection contains more than 900,000 publications of the United States government and international organizations. The Central Library also contains the Minority Cultures 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 Reading Resources Room, which provides a curriculum library and a collection of juvenile and young adult literature, is adjacent to the information desk on the second floor of the Central Library.

The Special Collections Division contains the Jenkins Garrett Library of Texana and Mexican War material and the Virginia Garrett Cartographic History Library. Special Collections includes archives relating to UTA's history since 1895 and the history of organized labor in Texas and the Southwest. The Division also holds archives and newspapers of Yucatán, colonial archives of Honduras and collections relating to the political history of Texas. The division's historical photograph and negative collection, which includes approximately 3 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 U.T. Arlington Libraries may be borrowed from other libraries through the Interlibrary Loan Office, a unit of the Department of Access Services. The Central Library provides a microform collection with the reading/printing equipment. Taking into account space considerations of this research library, some important but infrequently-used volumes from the U.T. Arlington Libraries collection are retained in the collection but are located in remote storage, and may be retrieved within a couple of days. 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 photocopy center located in the basement. The English Department Writing Lab, available to all U.T. Arlington students, is on the fourth floor. The Office of Information Technology runs a computer lab on the fifth floor with both PC and Mac hardware and software. A joint venture between the U.T. Arlington Libraries and OIT is Sam's Click Cafe, an Internet cafe on the first floor of Central Library. This has 36 computer workstations, overstuffed furniture, and a coffee bar serving a large array of coffees, teas, soft drinks, and snacks. The library has a number of laptops available to check out from the Circulation Desk to use independently or in conjunction with the Internet cafe data ports. In the same location OIT runs a help desk where students may take establish university computer accounts.

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, Wintersession, and Maymester, and other special circumstances. For more information, visit us on the Web at www.uta.edu/library. Director: Tom Wilding, Room 611, Central Library, Box 19497, Arlington, TX 76019, e-mail cenref@library.uta.edu.

Student Services

Office of Counseling, Advising, Assessment, and Career Services

216 Davis Hall • Box 19156 • 817-272-3671
<http://caacs.uta.edu>

The major services offered to undergraduate students by the Office of Counseling, Advising, Assessment, and Career Services include personal/academic/career counseling, advising, assessment and career services.

Counseling (216 Davis Hall)

Assistance with questions or problems concerning personal matters, academic skill development and career planning is offered. In addition to the opportunity for individual counseling, a large number of training workshops are provided to students covering a full range of topics relating to academic skills and career planning. A computerized guidance system is available to those students who need a start in the career planning process.

For more information, call 817-272-3671 or access <http://counseling.uta.edu>.

University Advising Center (241 Davis Hall)

The primary focus of the University Advising Center (UAC) is to provide assistance to undeclared majors regarding basic University rules and regulations common to all students, the core curriculum, clarification of life and career goals, and the transition of students into a chosen academic major. UAC advisors help undeclared majors choose a major consistent with their career goals, interests, and aptitudes. Emphasis is placed on helping students attain acceptance into a chosen major as early as possible and before they reach the 45/75 hour rule (see p. 19). Departmental advisors must advise students who have declared pre-major and major status.

UAC advisors encourage students to take the core curriculum early to ensure that all undergraduates are offered breadth and balance in a coherent, general, and liberal education. The listing of core curriculum requirements can be found in this catalog and on the UAC Web site. All undergraduate students should be aware of the probationary policies described in this catalog.

The TASP advisor is located in the UAC. Other student advising services include programs designed to identify early in the semester students who are experiencing academic difficulties. Additionally, students in the Gateway Program and individually approved students are advised in the UAC.

For more information on academic advising, call 817-272-3140 or access <http://uac.uta.edu>.

Assessment Services (201 Davis Hall)

Three types of testing programs are offered:

- **Admissions Tests:** SAT, ACT, Graduate Record Exam, Graduate Management Admission Test, Law School Admissions Test and Medical College Aptitude Test.
- **TASP Test:** Required by Texas law to ensure that students in state colleges possess the academic skills to perform effectively.

- **Credit by Examination:** Several programs are available to earn credit by examination. Contact Assessment Services in 201 Davis Hall for a current list of credit by examination options, or visit the Assessment Services Web site below.

Students who wish to prepare for an admissions test may locate manuals in bookstores or may take a test preparation course from the U.T. Arlington Division of Continuing Education.

For more information on Assessment Services, call 817-272-2362 or access www2.uta.edu/testing_services.

TASP Examination

The Texas Academic Skills Program (TASP) is required by Texas law to ensure that students in Texas public colleges possess the academic skills needed to perform effectively. TASP includes a testing component designed to identify and diagnose the reading, writing and mathematics skills of each student.

Students required to take the TASP test must do so prior to enrolling in any college-level course work. The receipt of official scores from a regular TASP test administration and an addendum to the transcript or official scores from the school that administered a TASP alternative test are the accepted methods of verification of having taken the TASP test.

The TASP Office is located in the University Advising Center, Room 241, Davis Hall.

Students who qualify for and want to receive an exemption from TASP requirements are responsible for providing documentation to the University to establish the exemption. Students are eligible for an exemption if they meet **any** of the following criteria:

- The student earned three or more hours of college credit, including credit earned by examination, prior to September 1, 1989.
- The student was exempted from another Texas public college or university on the basis of any of the permitted criteria.
- April 1995 and thereafter, the student earned a total SAT score of 1070 on the "Recentered Scale" combined with a minimum of 500 on each of the mathematical and verbal tests. Prior to April 1995, the student earned a total SAT score of 970 combined with a minimum of 470 on the mathematical test and a 420 on the verbal test. Scores more than five years old will not be used.
- The student earned an ACT composite score of 23 with a 19 minimum on each of the mathematics and English tests. Scores more than five years old will not be used.
- On the TAAS test, the student earned a minimum scale score of 1770 on the writing test and a Texas Learning Index (TLI) of 86 on the mathematics test and 89 on the reading test. Scores more than three years old will not be used.
- Blind students will take the TASP test with appropriate accommodations, and deaf students will take the Stanford Achievement Test.

Students may prepare or remediate for one or all three parts of the exam by registering for course-based developmental education through the English and Math departments. These classes are ENGL 0300 (Reading/Writing), ENGL 0301 (ESL Reading/Writing), MATH 0301 (TASP Preparation) and MATH 0302 (Fundamentals).

None of these courses/review sessions fulfill any degree requirements.

Important: Students who fail one or more sections of the TASP examination are required by state law to take developmental education by registering for the appropriate courses when registering for other credit courses. **Failure to attend TASP-required developmental activities will result in students being dropped from all of their classes.** Students must continue to enroll in developmental courses until successful completion of the developmental education sequence.

Students must pass all sections of the TASP test by the time they have completed 60 hours credit or its equivalent to enroll in upper division courses. For more information regarding TASP regulations, contact the academic advisor in the TASP Office in the University Advising Center.

A fee of \$29 (\$85 for the computer-administered test) must be paid when registering for the test. All fees are subject to change. For more information on registering for the TASP test, contact Assessment Services, 201 Davis Hall, 817-272-2362, or contact TASP, Texas Higher Education Coordinating Board, P.O. Box 12780, Austin, Texas, 78711, 512-427-6330.

Career Services

Career Services assists students and alumni in funding full- or part-time, internship and co-op employment opportunities. Services provided include: career development workshops, job listings, resume referral, on-campus employment interviews, career days and information on careers, employers and job search techniques.

Career Services has three offices across campus to better serve U.T. 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, full-time and internship opportunities to currently enrolled students in all degree programs. In addition, work-study positions are posted for both on- and off-campus employment.
- **University Career Services** offers full-time degree opportunities to new graduates and alumni in all degree programs. On-campus recruiting is conducted in the fall (October and November) and in the spring (February and March).

Career Services Locations

Web site: <http://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: First Level, University Center (West Entrance), 817-272-2895

Student Success Programs (241 Davis Hall)

The Office of Student Success Programs oversees the Year One at UTA program, administers the Maverick Scholar Association, and coordinates the activities of a variety of academic support programs on campus. The Student Success Programs Office provides information for students on University transition, transportation, disability assistance, academic support, financial aid, career advice, campus activities, and student health.

The Student Success Programs Office serves as a liaison between **Academic Support Programs**, including Honors Residential Mentors, TASP Developmental Courses, Online Academic Support, College Adjustment and Learning Frameworks Courses, SOAR Cost-Share Tuto-

rial, Student Support Services, Upward Bound, Writing Center, Math Clinic, Science Learning Center, Library, and UTA Hosts.

Adapting to a new college environment can present both academic and social challenges to new freshman and transfer students. Student Success Programs links students to a wide variety of programs, activities, and services to enhance their U.T. Arlington experience. Both new and returning students are welcome to contact the Student Success Programs Office at 817-272-6107 or to access information at the Year One at UTA Web site, www.uta.edu/yearone.

Office of Information Technology (OIT)

809 Davis Hall • Box 19318 • 817-272-3666

www2.uta.edu/oit

The Office of Information Technology is comprised of a diverse group of people working to meet the technological needs of the U.T. Arlington campus community. The four major components of OIT are Academic Computing Services (ACS), Business Computing Services (BCS), Campus Network Services (CNS), and Computer Operations & Services (COS).

Academic Computing Services provides computing resources for campuswide research and student instructional activities. Computing resources provided by ACS include six student computer labs, accounts on centralized systems that provide access to compilers, programming tools, utilities, e-mail, telnet, file transfer protocol, and Web access, online documentation, and IT professionals to provide assistance to students, faculty and staff.

ACS' seven on-campus computer labs are located in the Business Building, Central Library, Fine Arts Building, Nedderman Hall, Ransom Hall, and University Hall. The Ransom Hall Computer Learning Center is open 24 hours per day, seven days a week. This three-story computing facility is networked with Macintosh and IBM-compatible computers and it provides color and grayscale laser printing, color flatbed scanners, and teaching classrooms. The Business Computing Facility provides IBM-compatible PC systems, color and grayscale laser printing, and teaching classrooms. The Fine Arts Computing Facility provides Macintosh computers and grayscale printing. The Library Computing Facility, located on the fifth floor of the Central Library, provides networked Macintosh and IBM-compatible computers, dot matrix printing, color and grayscale laser printing, a color flatbed scanner, and teaching classrooms. The Internet Café, located on the first floor of the Central Library, provides networked IBM-compatible PCs, grayscale laser printing, and laptop desks. The Nedderman Hall Computing Facility provides networked IBM-compatible PCs, SUN Solaris client workstations, and NCD X-Windows systems, and dot matrix and laser printers. The University Hall Computing Facility provides networked IBM-compatible PC systems, dot matrix and laser printers, and teaching classrooms.

ACS also provides free dial in access to the campus network and Internet, personalized e-mail accounts on UNIX and Windows NT with Web-based interface, personal Web space, and personal disk space for storage of files. ACS maintains online documentation and staff consultants to assist with everything from desktop operating systems to statistical analysis to batch processing on one of the research super computers.

ACS supports both large, centralized computing resources, as well as distributed client/server computing. The large centralized resources consist of:

1. An SGI Origin 2000, with sixteen R10000 processors for parallel process applications, 4GB of memory, and 153GB of disk space, runs IRIX 6.5 and scientific application software. This system, called RESEARCH, is dedicated exclusively for UTA's researchers.
2. A second system for scientific research is a computer farm consisting of 17 Compaq Proliant DL360s, each with 2 933 MHz PCUs, 1GB RAM and 36GB disks, each running the LINUX operating system, 6 Compaq Alpha Server DS20Es with 2 667MHz CPUs, 2GB RAM, 36GB disks, running Compaq True64 operating system, 5 Compaq Alpha Server ES40s with 4 833MHz CPUs, 4GB RAM, 72GB Hard Drives, running True64, and one network attached storage device with 500GB disk space. All of the computers will be networked together with a gigabit switch.
3. A Compaq AlphaServer 4000 5/400, with two 21164 Alpha Processors, 1GB of memory, and 74GB of RAID disk space, runs Compaq Tru64 UNIX, various compilers, programming tools, utilities, database management systems, statistical packages/libraries, and provides network connectivity to the Internet. This system, called OMEGA, supports both teaching and research activities. OMEGA accounts are available upon request for U.T. Arlington students, faculty, and staff.
4. A Sun Ultra Enterprise 3000, with two 250MHZ UltraSPARC processors, 2GB of memory, and 114GB of RAID disk space, runs Sun Solaris 2.6, a SYSTEM V based UNIX operating system. This system, called GAMMA2, acts as a computer and/or print/file server for teaching and research purposes, provides programming tools, libraries, utilities, engineering application software, and full network connectivity to the Internet. GAMMA2 accounts are available upon request for U.T. Arlington students, faculty, and staff.
5. A Compaq AlphaServer 1000A, with one 21164 5/500 MHz Alpha Processor, 1GB of memory, and 63GB of disk space, runs OpenVMS, various compilers, programming tools, utilities, provides excellent connectivity to the Internet, and supports a large number of interactive and batch users. This system, called UTARLG, supports both teaching and research activities. UTARLG accounts are available upon request for U.T. Arlington students, faculty, and staff.
6. An SGI Origin 200, with two R10000 processors, 384MB of Memory, and 108GB of disk space, runs IRIX 6.5 and SGI's MediaServer software. This system is dedicated for distance learning at U.T. Arlington.
7. A SUN E250 with 1GB of memory and 7x18GB disk drives, running Sun Solaris 2.7. This system serves as UTA's WWW Server.
8. A SUN Ultra 1 Model 140, with 96MB of memory and 10GB of disk spaces, runs Sun Solaris 2.7. This system serves as UTA's online course (WebCT) Server.

The distributed client/server environment supports thousands of computers located on the desktops of UTA's faculty and staff offices as well as in the student computer labs. Distributed client/server resources consists of:

1. A SUN Solaris server and 41 Solaris clients. The client stations are SUN Ultra 1 Model 170E with one 167MHZ UltraSPARC processor, 128MB of memory, 3D graphics card, and 2GB of disk space. These client stations run Solaris 2.6 operating system.

2. Three Netfinity 5600s each with 2933Mhz CPUs, 1GB RAM, and a total of 1 Terabyte disk space, running Windows-NT server operating system 4.0, and serve as print/file and application servers to Macintosh and IBM-compatible computers located in ACS-supported computing facilities, and Student personal disk space and Web pages.
3. Many IBM Netfinity and Compaq Prioris servers run Windows-NT 4.0 to serve as Exchange, SQL, SMS, and print/file servers. Together, these servers support the University's e-mail, and desktop and departmental applications.

One of Campus Network Services' major responsibilities is to provide a high-speed data network within the U.T. Arlington campus as well as interconnections to major regional, national, and international networks (e.g. Internet, THEnet, etc.).

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. All OIT labs and resources are available to current U.T. Arlington students, faculty, and staff.

Student Health Services

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

Student Health Services (SHS) is an on-campus, out-patient facility whose mission is to maintain the optimum physical and emotional health of U.T. Arlington students and designated faculty/staff through the provision of quality, accessible, comprehensive and cost-effective primary health care.

SHS 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 is partially funded by a Medical Services Fee.

SHS and facilities are available to all enrolled students. A student who chooses **not** to enroll for a semester, but who plans to enroll the following semester, may receive treatment during the missed semester. Enrolled students who hold a position that requires student status as a condition of employment, and their dependents 12 years and older, who are covered by the U.T. System Insurance, may receive treatment, and the insurance company will be billed for services rendered. Faculty/staff may receive treatment at SHS for urgent care and other selected services on a fee for service basis, by appointment (817-272-2745).

Staffing: The staff includes full-time physicians and registered nurses, pharmacists, laboratory and x-ray technologists, clinical psychologists, psychiatrists, a substance abuse specialist, a student development specialist, and related personnel. SHS provides medical services during those times when the University is open. Services are not available during scheduled University holidays. During these periods, 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 a walk-in basis. Elective minor surgical procedures such as removal of cysts, moles, and warts, are available. Appointments are required for both the initial evaluation and the surgery.

Administration of Allergy Antigen Injections: Patients must provide the antigen and have their physician provide SHS with details of their allergies and the proposed program of treatment.

Women's Clinic: Diagnosis and treatment of most diseases of the female reproductive organs are provided. Consultations, routine Pap smears, diagnostic tests for the various sexually transmitted diseases, and breast examinations are done by appointment (817-272-2713). The various forms of contraception are discussed with students who seek advice of this nature.

Mental Health Clinic: Mental health services are available to students and faculty/staff by appointment (817-272-2713), and no referral is necessary. Services available include psychological and psychiatric assessment and treatment. Referrals to health agencies or other professionals are made when indicated.

Laboratory: The laboratory is equipped to do all routine determinations. For more sophisticated procedures, specimens are obtained and sent to a reference laboratory for testing. Outside physicians' requests will be honored. Laboratory test results must be given by the clinician.

Pharmacy: The pharmacy dispenses medications at a reduced cost and provides medication counseling to all students and faculty/staff. The pharmacy is a provider for the student health insurance plan and is also a network pharmacy for the faculty/staff prescription plan. Prescriptions from any licensed physician may be dispensed.

X-ray: All routine x-ray studies are done. After an initial reading by SHS physicians, 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 medical records. These records will not be released to anyone without written authorization by the patient or as provided by law.

HIV/AIDS: HIV/AIDS education/testing are available for students and faculty/staff. Information is given on a one-to-one basis, or, upon request, to campus/related groups. HIV antibody testing is anonymous and requires pre- and post-test counseling. Clients are referred to appropriate off-campus facilities, if needed. The U.T. Arlington brochure, "Policy and Guidelines on Human Immunodeficiency Virus Infection (HIV) and Acquired Immune Deficiency Syndrome (AIDS) and Hepatitis B Virus (HBV)" is available at SHS.

Substance Abuse Prevention: A variety of services are available to students and faculty/staff. Programs to assist individuals in making appropriate decisions regarding the use of alcohol and other drugs are available. The emphasis is on education, programming, support, intervention and short-term counseling. Referrals are made to Metroplex resources when a person is identified as being chemically dependent. The U.T. Arlington brochure, "Information Regarding Illicit Drugs and Alcohol Abuse" is available at SHS.

Peer Education: The Peer Education Program trains students to educate U.T. Arlington students, faculty/staff members and members of the Arlington community to make healthy life choices. Under the supervision of the coordinator, peer educators can earn three elective credit hours or participate on a volunteer basis. Peer educators conduct presentations and health fairs and promote awareness activities. Topics may include substance abuse, eating disorders, healthy dating, acquaintance rape, STDs, HIV/AIDS and stress.

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

Patient Rights: SHS 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: SHS is an out-patient facility, and, as such, provides only ambulatory medical services. Patients are responsible for their own transportation to SHS. 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 SHS is open.

Indebtedness: It is the student's responsibility to satisfy indebtedness to SHS with reasonable promptness. Upon payment, receipts will be issued which can be used by the student for submitting claims to personal insurance companies.

Health Insurance: SHS is not equipped to perform the more extensive diagnostic procedures and services offered by a general hospital. Therefore, all U.T. 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 SHS at 817-272-2771. Insurance brochures and applications are available at SHS.

Blood Reserve Fund Plan: U.T. Arlington, in cooperation with Carter BloodCare, sponsors a blood reserve fund plan for students faculty and staff. To participate in the reserve fund, members are requested to donate regularly during semiannual blood drives held on campus. SHS coordinates the release of blood credits. EX.C.E.L. Campus Activities sponsors the campus blood drives.

International Office

Lower Level, University Center • Box 19028 • 817-272-2355
www.uta.edu/io

The International Office serves the needs of the 2,000 international students and scholars at The University of Texas at Arlington. The staff handles all immigration procedures and provides information, advice and counseling on a variety of issues affecting international visitors. The International Office sponsors numerous cultural events and informational workshops throughout the year and publishes a newsletter each semester informing students of immigration issues, deadlines and events of special interest. All new international students must attend international student orientation, hosted by the International Office, before matriculation.

The University of Texas at Arlington offers opportunities for study on exchange programs, faculty-led programs or affiliated programs in Argentina, Australia, Austria, Bulgaria, Canada, Chile, China, Costa Rica, Cyprus, Czech Republic, Dominican Republic, Ecuador, England, France, Germany, Greece, Holland, Hungary, Ireland, Israel,

Italy, Japan, Korea, Malaysia, Mexico, Morocco, Norway, Portugal, Russia, Scotland, Singapore, South Africa, Spain, Switzerland and Thailand. New programs are being developed every year. Students interested in study abroad opportunities, scholarship, travel and work opportunities abroad will find information at the International Office.

Office of Multicultural Services

Lower Level, University Center • Box 19353 • 817-272-2099

The Office of Multicultural Services is committed to fostering the full participation of ethnic minorities at The University of Texas at Arlington by helping create an academic, social and cultural atmosphere conducive to the presence and responsive to the needs of African-American, Native American Indian, Mexican-American and Pacific Island students. It is important that prospective students receive orientation to the diverse and numerous offices designed to assist students at the University. While the Office of Multicultural Services is committed to facilitating full participation of ethnic minorities in every aspect of university life, its doors are open to all students at The University of Texas at Arlington.

Academic assistance services are available to promote a successful learning experience. In addition, seminars and workshops provide leadership training and enhance the social skills and positive self-concepts necessary for successful living. Rich cultural diversity is reflected in the number and variety of minority student organizations on campus.

The **Center for Multicultural Cooperation (CMC)** is a comprehensive, campuswide outreach initiative for attracting, orienting and retaining minority students. The CMC seeks to recruit minority students in various ways, including the utilization of volunteer students and staff recruiters.

The CMC provides an orientation program for minority students. Students receive a thorough overview on how the campus operates, who to see for a particular problem, and what is required of them if their campus experience is to be successful. The program stresses class attendance, establishing friendships, participating in campus activities and accepting responsibility.

Also, the CMC works to increase minority student retention by providing assistance with academic preparation, academic advising, cultural activities, sociocultural adjustment, financial resources and faculty/staff recruitment. The CMC views retention as a campuswide effort involving all aspects of the educational process.

In summary, the intent of the CMC is to recruit minority students with the goal of graduating minority students.

The office hours are Monday-Thursday, 9 a.m.-10 p.m.; Friday 9 a.m.-6 p.m. For more information, contact Casey Gonzales at 817-272-2099 or 817-272-2128.

The **Minority Mentor Project** matches freshman and sophomore students with U.T. Arlington faculty and staff to facilitate successful graduation rates. Freshmen or sophomores with fewer than 60 hours should contact the Office of Multicultural Services to participate.

Services for Students with Disabilities

**Lower Level, University Center • Box 19355 • 817-272-3364
TDD 817-272-3452 • www.uta.edu/disability**

Well known for its leadership in program accessibility for students with disabilities, U.T. Arlington has developed one of the leading support service programs in North Texas through its Office for Students with Disabilities. U.T. Arlington is on record as being committed to

both the spirit and letter of federal equal opportunity legislation.

The Adaptive Resource Center is a division of the Office for Students with Disabilities and provides accommodated testing services as well as study facilities with specialized adaptive technology. Test-taking accommodations include readers, transcribers, extended time, distraction-free environments, use of CCTVs, interpreters, use of computers with proctor, enlargement of tests, tape recorded tests and many other functions.

Please contact the Office for Students with Disabilities at 817-272-3364 (voice) or 817-272-3452 (TDD) for more information. Students needing academic accommodations must submit a request to the Office for Students with Disabilities.

Attorney for the Students

**Lower Level, University Center • Box 19355 • 817-272-3771
www2.uta.edu/attorney**

Legal advice and counsel are available to currently enrolled students who have paid the appropriate student service fees. The attorney for the students may not act as counsel of record nor represent any student, faculty member, staff member, or any group or combination of students, faculty members or staff members:

- In any matter that requires an administrative decision to be made by any officer, committee board or agency of a component institution of the U.T. System or the Board of Regents
- At any stage of any criminal proceeding in any federal, state, county or local court
- At any stage of any civil proceeding in any federal, state, county or local court where such proceeding is directly or indirectly antagonistic to the interest of the U.T. System or its component institutions

Students must bring their Mav Express card to the appointment for verification of current enrollment.

SOAR (Students Obtaining Academic Readiness)

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

SOAR Learning Services provides academic assistance to students through the following 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.
- 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 U.T. Arlington students. For more information, call (817) 272-3684 or visit Room 132, Hammond Hall.

Cost-Share Tutorial Program: Provides low-cost academic support to any U.T. Arlington student in a variety of courses. To work with a Cost-Share tutor on an individual basis, students charge the \$4.50 per hour fee to their student account at the Cost-Share Office, Room

130, Hammond Hall. Study groups of four to 10 students may be formed that meet once per week all semester. Cost to each student is \$20 per semester. Tutoring and study groups are offered for specific courses in the following subject areas: math, English, history, physics, chemistry, biology, modern languages and statistics in addition to entry-level prerequisite courses in business and engineering. Cost-Share offers review sessions in algebra for specific courses and Spanish 1441, 1442 and 2313 mid-term and final exam reviews. Helpful handouts are provided. Cost-Share also offers the required TASP labs which meet one hour per week for 14 weeks and are attached to all English 0300 and 0301 courses.

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 and two office hours for tutorial assistance are offered each week. Supplemental Instruction is offered in selected biology, chemistry, mathematics, physics, accounting, economics, finance and history courses. Call (817) 272-2617 or visit Room 130, Hammond Hall for more information.

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

- Enrichment/skill-building seminars
- Research methods training
- Summer research program with stipend (\$2,800)
- Annual McNair Research Journal (includes student research papers)
- GRE preparation
- Assistance with graduate school application process
- Participation in undergraduate research/professional conferences
- Free tutoring
- Financial incentives offered by various national graduate programs

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

YWCA Child Development Center

106 W. 6th St. (corner of 6th and Speer streets) • 817-275-4066

The YWCA Child Development Center is operated by the YWCA of Fort Worth and Tarrant County and offers full-time infant, toddler and preschool child care. Part-time care can be scheduled for children of U.T. Arlington students, staff and faculty. The center is open from 6:30 a.m. to 6 p.m. Some scholarships are available for children of U.T. Arlington students. For enrollment information, call 817-275-4066.

Other Student Services

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

Office of Admissions

Room 123, Davis Hall

- Information concerning undergraduate admission
- Filing of either high school or college transcripts
- Transferring credits from another institution

Office of the Registrar

Room 129, Davis Hall

- Withdrawals (resignations) from the University
- Application for graduation
- Class schedules
- Information concerning degrees
- Address changes and name changes
- Veterans' advising and enrollment certification
- Grade reports at termination of semester
- Request for transcript
- Registration

Bursar Services

Room 130, Davis Hall

- Payment of debts to the University
- Conferences on all problems arising in connection with fees and bills
- Information concerning repayment of loans
- Check cashing services

Check Cashing Procedures: A current University identification card and a driver's license are required to cash a personal check. A student may cash a personal check for an amount not to exceed \$25.

Returned Checks: A charge of \$25 will be made for each returned check. A person who gives U.T. Arlington a bad check (one in which the bank is not at fault) will be subject to one or more of the following actions: (1) a bar against readmission of the student, (2) withholding of the student's grades and official transcript, (3) withholding of degree to which the student otherwise would be entitled until the debt and any applicable fees have been paid, (4) all other penalties and actions authorized by law.

Additionally, the University will not accept a check from anyone who has given a total of two bad checks unless the person submits a written statement from the bank stating "bank error or unusual circumstance" to be the cause of the bad checks.

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

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 Vice President for Academic Affairs 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, U.T. Arlington, Arlington, TX 76019

Student Housing, University Center and Dining Services

Student Housing

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

Advantages of Living on Campus

U.T. Arlington offers some of the finest and most affordable on-campus housing facilities available. Students may choose from a wide selection of residence halls, apartments and houses. On-campus residents live just a short walk from classrooms, libraries, the University Center, and athletic and recreational facilities. Students will also enjoy being part of a community where they can make friendships that last a lifetime. For more information and to apply online, visit www.uta.edu/housing.

Housing Choices

Residence Halls

University housing facilities include one residence hall for women only and four halls that are coed. (This distribution could change to accommodate increases in men or women.) The residence halls can house 1,335 students. Both private and double-occupancy rooms are available. All residence halls are air-conditioned and furnished and include a high-speed Ethernet connection next to each bed. Each room includes metro telephone service and basic cable TV services. Community amenities include computer labs, study and social lounges, kitchens, laundry facilities, gated parking and exterior card access systems. Professional live-in directors and on-site resident assistant staff provide a wide range of student services and activities. Meal plans are available for all students.

Arlington Hall: Constructed in 2000, U.T. Arlington's newest residence hall houses 300 men and 300 women. Arlington Hall features private bedrooms in luxury suites where three residents share a living area and master-style bathroom. Roommates in double-occupancy rooms share their own private bath. All Arlington Hall residents are required to choose a meal plan and enjoy a first-class dining experience featuring all-you-can-eat meals.

Brazos House: A coed residence hall with a capacity for 48 women and 48 men. Women and men live in separate areas. The rooms are arranged in two-room suites with adjoining bath facilities.

Lipscomb Hall: A residence hall that is coed on the north wing and houses women only on the south wing with a capacity for 330 students. The south wing is arranged in two-room suites with connecting bath. The north wing is arranged in three-room suites with private bath facilities for each suite.

Trinity House: A coed residence hall with a capacity for 119 women and 119 men. The rooms are arranged in three-room suites with private bath facilities for each suite.

Interim Housing

Interim housing, including housing for Wintersession, will be provided in designated buildings. For students who need residence hall accommodations during semester breaks, nine- and 12-month contracts are available only in these designated buildings.

2000-2001 Residence Hall Rates

(Total cost for fall and spring semesters)

- Double-Occupancy rooms: \$1,790-\$3,150
Private Rooms: \$3,300-\$4,050
- Meal Plans – required for Arlington Hall and optional for other residence halls: \$1,650-\$1,760

Contact the Housing Office for 2001-2002 and 2002-2003 rental rates.

Centennial Court Apartments

Constructed in 1994, Centennial Court Apartments offer contemporary, on-campus accommodations. Three custom floor plans are available. All apartments include full-service kitchens, built-in study/dining areas, wall-to-wall carpeting and mini-blinds. Most apartments are fully furnished. Basic extended cable TV is provided in each apartment. Community amenities include two swimming pools, two spas, two laundry facilities, fitness room, sand volleyball court and a perimeter fence. A professional on-site director and community assistants provide services and social activities for residents.

2000-2001 Centennial Court Rates

- 4 Bedroom/2 Bath (private bedroom for four residents)
\$266/month/person plus electric
- 2 Bedroom/2 Bath (private bedroom for two residents)
\$364/month/person plus electric
- Efficiency (private or shared accommodations for one or two residents)
\$556/month/apartment plus electric

Contact Centennial Court at 817-436-4800 or the Housing Office for 2001-2002 and 2002-2003 rental rates.

U.T. Arlington Apartments and Houses

Students may choose from 17 University-owned apartment communities with a wide selection of one- and two-bedroom floor plans. All apartments feature air-conditioning, kitchen appliances, wall-to-wall carpeting, mini-blinds and dead-bolt security locks. Cable TV service is also available. All apartments are unfurnished except University Village. 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.

Houses are also available for families with dependent children. All houses are unfurnished and air-conditioned with fenced yards. Many have kitchen appliances.

2000-2001 Apartment/House Rates

- 1 bedroom apartments
\$373-\$441/month/apartment (all utilities paid)
- 2 bedroom apartments
\$515-\$587/month/apartment (all utilities paid)
- 2 to 4 bedroom house
\$530-\$765/month/house (plus electric/gas/water)

Contact the Housing Office for 2001-2002 and 2002-2003 rental rates.

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 in the Housing Office. Students who violate these rules are subject to disciplinary action by the Senior Associate Vice President for Student Affairs and Dean of Students.

E.H. Hereford University Center

University Center • Box 19349 • 817-272-2929
www2.uta.edu/ucenter

The E.H. Hereford University Center 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, Bursar Services, mail service, full-service copy center, recreational center, big-screen TV area, The Market convenience store, lounges,

meeting rooms, ballrooms and dining areas. The Bowling and Billiards area offers a billiards room, 12-lane bowling center, big-screen TV area, amusement arcade and vending lounge. Lockers are also available to students for a nominal fee.

The University Center is also home to more than 200 student organizations, including Student Congress and the Graduate Student Council. U.C. offices include Housing and University Center, Mav Express Office, Student Activities, Student Development, Student Governance and Organizations, Disabled Student Services, Attorney for the Students, International Students, Multicultural Services, Center for Multicultural Cooperation (CMC), Center for Mexican American Studies (CMAS) and Student Employment Services.

University Dining Services

University Center • Box 19349 • 817-272-2919
www2.uta.edu/ucenter

Students may choose from a variety of foods when visiting the University Center. The Connection Café offers a first-class dining experience. Additionally, the Plaza features Pizza Hut Express, Burger King, Blimpies, Paradise Express, Starbucks coffee, Salad Garden and Dunkin Donuts as well as a hot dog bar and potato bar. Bottled and fountain beverages are also available.

The Corral, located on the west side of campus, offers Blimpies, Pizza Hut, Dunkin Donuts, Avanti coffee, hot soup and snacks. Java City, located on the first floor of the Central Library, is open seven days a week and offers a full-service coffee bar experience, including scones and homemade biscotti.

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

Student Involvement and Policies

Student Activities

Lower Level, University Center • Box 19348 • 817-272-2963
www2.uta.edu/stuact

The Student Activities Office is the center for out-of-classroom activities at U.T. Arlington. Participating in extracurricular activities helps students gain valuable leadership skills that complement their academic work and enhance and enrich their collegiate experience. The Student Activities area includes the U.T. Arlington cheerleaders, Greek life, leadership programs and EX.C.E.L. Campus Activities.

Cheerleaders

The co-ed and all-women cheerleading squads at U.T. Arlington provide support for University athletic teams. They also host clinics, competitions and demonstrations throughout the Metroplex. Sam Maverick, the school mascot, assists in promoting school spirit.

Greek Life

The fraternity and sorority community at U.T. Arlington gives students the opportunity to form friendships that last a lifetime. Greek Life offers opportunities for students to develop both academically and socially while helping others and gaining valuable leadership experience.

As part of a Greek letter organization, members are expected to achieve minimum grade point requirements set by each organization. In addition to these requirements, many fraternities and sororities offer academic assistance programs and provide scholarships for students who perform well.

Members of fraternities and sororities will also have the opportunity to give back to the surrounding community. Most organizations have an organization to which they contribute both time and money.

The Greek Community at U.T. Arlington consists of 23 national and local fraternities and sororities. These include:

Fraternities

Alpha Phi Alpha
Beta Theta Pi
Delta Upsilon
Kappa Alpha Order
Lambda Theta Phi
Omega Delta Phi
Phi Delta Theta
Phi Gamma Delta
Pi Kappa Phi
Sigma Chi
Sigma Lambda Beta
Sigma Phi Epsilon

Sororities

Alpha Chi Omega
Alpha Kappa Alpha
Delta Delta Delta
Delta Sigma Theta
Delta Zeta
Kappa Delta Chi
Lambda Theta Alpha
Sigma Gamma Rho
Theta Chi Omega
Zeta Phi Beta

Each fraternity and sorority is a member of their respective governing council (Interfraternity Council, Panhellenic Council, National Pan-Hellenic Council), which coordinates recruitment efforts, provides support and programming for their respective members.

Student Activities provides advising and support for all Greek letter organizations through communitywide programming and events. For more information about fraternities and sororities at U.T. Arlington or how to join, please call the Office of Student Activities at 817-272-2963 or visit the Greek life Web site at www2.uta.edu/stuact/greek.

EX.C.E.L. (Excellence in Campus and Community Service, Entertainment and Arts, and Leadership and Development)

EX.C.E.L.'s primary focus is to plan and implement campuswide cultural, social, recreational and educational activities for students, faculty, staff and the surrounding community. Students have the opportunity to get involved in the following EX.C.E.L. committees:

Campus and Community Service

Organizes traditional events as well as those that help meet the needs of the community. Events include Bed Races, Blood Drives, Charity Week, Volunteer Fair, "The Big Event" and the Last Day Blast.

Entertainment and Arts

Sponsors activities and programs featuring the performing and visual arts, concerts, comedians and cultural events. Popular performers have included comedians D.L. Hughley and Carrot Top, the Shangri-La Chinese Acrobats, Van Cliburne medalist Fabio Bidini, and entertainers Spike Lee and David Alan Grier. The committee coordinates and schedules monthly art exhibits in the E.H. Hereford University Center Art Gallery. The gallery showcases the work of U.T. Arlington students, faculty and staff, as well as community artists.

Leadership and Development

Presents ongoing lecture series on topics that improve leadership skills or personal growth. Speakers have included Maya Angelou, James Earl Jones, FBI profiler John Douglas, Sarah Weddington, Phyllis Schlafly and Joe Clark.

Marketing

Creates and implements marketing strategies, graphic design and advertising for each program sponsored through EX.C.E.L. The committee works with media sources at U.T. Arlington and within the Metroplex.

Membership

Responsible for the recruitment and retention of members for the organization. This committee promotes positive internal relations by providing opportunities for interaction through team-building exercises, member awards and monthly activities.

Leadership Program

The University has strengthened and unified its leadership programs to produce capable and effective leaders. The program currently has five primary components: the Campus and Community Involvement Record (CCIR), the Leadership Foundations class (EDUC 1130), the Student Leadership Training Class (EDUC 2330), the Leadership Retreat and the Leadership Recognition Ceremony.

Campus and Community Involvement Record

The CCIR is a transcript, similar to an academic transcript, which chronologically lists all co-curricular activities—both on and off campus activities—of a student while attending U.T. Arlington. The CCIR is an official document of the University and lists each activity, the level of involvement in that activity and the skills the student develops through participation. The CCIR can be used as a record of activities, as a supplement to a résumé or placement file, as

documentation for scholarship applications or as a guide to developing career objectives. To register, a student needs to complete a form in the Student Activities Office.

Leadership Classes

The Leadership Foundations class (EDUC 1130) is an accredited one-hour course through the School of Education developed for emerging leaders. Students learn basic leadership skills that they can use to assume leadership positions and roles on campus. The class is taught by current U.T. Arlington leaders who have knowledge and experience and are able to relate to potential leaders in a productive and relaxed environment.

The Student Leadership Training class (EDUC 2330) is a three-hour advanced course taught by staff and is also accredited through the School of Education. This class is designed for upperclass students to discuss various theories and styles of leadership and to give students practical experience.

Leadership Retreat and Leadership Recognition Ceremony

These events are sponsored through the Student Activities Office and are open to U.T. Arlington leaders. These programs help develop and recognize current leaders on campus and provide them with the information and tools necessary to be successful.

For more information about any program please visit the Office of Student Activities in the Lower Level of the University Center, or call 817-272-2963.

Office of Student Governance and Organizations

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

U.T. Arlington recognizes that a balanced program of activities, which provides an opportunity for the expression and development of student interests, will stimulate a student academically and facilitate development as an individual.

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. U.T. Arlington has more than 220 registered student organizations to meet nearly every student's need, including honorary, professional, international, cultural, political, religious and other types of organizations. Students are encouraged to enter activities in organized student life both for personal value and for the unique contribution each student can make to the campus community.

For more information regarding specific organizations on campus, contact Student Governance and Organizations, Box 19350, Arlington, Texas 76019-0350, 817-272-2293.

Student Government

The organs of student government on The University of Texas at Arlington campus are Student Congress, Graduate Student Council, constituent councils, UTA-HOSTS!, student representatives on various University committees, the Ambassador Program and student organizations. The Student Congress is the official avenue for students to express views to the student body, faculty and administration. It is composed of elected members who work in conjunc-

tion with various committees. Each fall and spring, the student body holds elections. For more information, visit the Student Governance and Organizations Office in the E.H. Hereford University Center.

Scholastic Honor Societies

The following scholastic honor societies are registered on the U.T. Arlington campus. Specific information regarding these organizations is available in the Office of Student Governance and Organizations, Box 19350, Arlington, Texas 76019-0350, 817-272-2293.

- Alpha Chi (Scholastic)
- Alpha Kappa Delta (Sociology)
- Alpha Phi Mu, Texas Chapter (Industrial Engineering)
- Alpha Phi Sigma (Criminal Justice)
- Alpha Psi Omega (Drama)
- Beta Alpha Psi (Accounting)
- Beta Gamma Sigma (Business)
- Chi Epsilon (Civil Engineering)
- Eta Kappa Nu (Electrical Engineering)
- Eta Sigma Phi (Classical Language)
- Golden Key National Honor Society (Scholastic)
- Kappa Delta Pi (Education)
- Kappa Tau Alpha (Journalism)
- Lambda Alpha (Anthropology)
- Omicron Delta Epsilon (Economics)
- Omicron Delta Kappa (Leadership)
- Order of Omega (Greek)
- Phi Alpha Theta (History)
- Phi Sigma (Biology)
- Pi Alpha Alpha (Public Affairs and Administration)
- Pi Mu Epsilon (Math)
- Pi Sigma Alpha (Political Science)
- Pi Tau Sigma (Mechanical Engineering)
- Psi Chi (Psychology)
- Sigma Gamma Epsilon (Geology)
- Sigma Tau Delta (English)
- Sigma Theta Tau (Nursing)
- Tau Beta Pi (Engineering)
- Upsilon Pi Epsilon (Computer Science)

Professional Organizations

The following professional student organizations are registered on the U.T. Arlington campus. Specific information regarding these organizations is available in the Office of Student Governance and Organizations, Box 19350, Arlington, Texas 76019-0350, 817-272-2293.

- Accounting Society
- AD3
- Air Force Student Association
- Allied Health Society
- Alpha Kappa Psi (Business)
- American Association of Petroleum Geologists
- American Institute of Aeronautics & Astronautics
- American Institute of Architecture Students
- American Marketing Association
- American Production and Inventory Control Society
- American Society of Civil Engineers
- American Society of Landscape Architects
- American Society of Mechanical Engineers
- Anthropology Club
- Arlington Nursing Students Association

Association of Computing Machinery/IEEE-CS
 Association of Information Technology Professionals at UTA
 Biological Society
 Biomedical Engineering Society
 Black Student Nurses Association
 Chemistry and Biochemistry Society
 Criminal Justice Student Organization
 Delta Sigma Pi (Business)
 Exercise, Sports and Health Society
 Finance Society
 Geological Society
 Institute of Electrical and Electronic Engineers
 Institute of Industrial Engineers
 Institute of Transportation Engineers
 International Interior Design Association
 Lingua: The Linguistics Circle at UTA
 Marketing Research Graduate Student Association
 Mathematical and Analytical Student Society
 Medical and Dental Preparatory Association
 Mu Sigma Microbiology Society
 National Association of Black Accountants
 National Association of Business Economists
 National Association of Social Workers
 National Broadcasting Society
 National Society of Black Engineers
 Phi Alpha Delta Pre-Law Society
 Phi Mu Alpha Sinfonia (Music)
 Pi Sigma Epsilon (Marketing)
 Pre-Pharmacy Students Association
 Psychological Society
 Public Relations Student Society of America
 Sigma Alpha Iota (Music)
 Society of Automotive Engineers
 Society of Graduate Business Students
 Society of Hispanic Professional Engineers
 Society of Human Resource Management
 Society of Physics Students
 Society of Professional Journalists
 Society of Television and Radio Students
 Society of Women Engineers
 Student Art Association
 Student National Medical Association
 Student Planning Association
 Student Reading Association of UTA
 Transatlantic History Student Organization

UTA-HOSTS!

Student welfare and retention are of primary concern for the U.T. Arlington community. 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. UTA-HOSTS! matches first-year students with upperclass students with a similar major. The upperclass students, or mentors, will help students new to U.T. Arlington gain insight into campus opportunities and resources including important dates and deadlines, academic services and extracurricular activities. Participation in the program is voluntary and open to the student body.

For further information about the program or to apply for a mentee or mentor position, contact the UTA-HOSTS! Office, Lower Level, University Center, Box 19350, Arlington, TX 76019, 817-272-2293.

Intercollegiate Athletics

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

All men's and women's intercollegiate teams representing U.T. Arlington are members of the Southland Conference. Other conference members are Lamar University, McNeese State University, Nicholls State University, University of Louisiana-Monroe, Northwestern State University, Sam Houston State University, Southeastern Louisiana University, Southwest Texas State University, Stephen F. Austin State University and The University of Texas at San Antonio. All U.T. 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 track and field. Individuals interested in participating in the U.T. 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, 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.

U.T. 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 will be held in Maverick Stadium. Men's and women's home basketball games and women's home volleyball games are played in Texas Hall. Baseball and softball games are played in Allan Saxe Stadium at Fielder Road and Park Row. Men's and women's tennis matches are played at the Tennis Center.

Department of Recreational Sports

212 Activities Building • Box 19268 • 817-272-3277
www.uta.edu/recsports

The Department of Recreational Sports provides a diverse offering of recreational and leisure experiences for students, faculty and staff. More than 80 activities in competitive and recreational areas—team, individual and co-recreational—are scheduled throughout the year. For more information, stop by Room 212 of the Activities Building or call 817-272-3277.

Program areas:

- **Intramural Sports:** Activities range from traditional (volleyball, softball, basketball and football) to nontraditional (bed races and oozeball).
- **Informal Recreation:** This program centers around the Activities Building which contains racquetball courts, weight rooms, cardiovascular equipment, a jogging track, and gymnasiums for basketball, volleyball and badminton.
- **QUEST University Wellness:** This program offers various activities to enhance personal wellness. Some of the benefits include aerobics, fitness testing, personal training, educational seminars and nutrition assessments.
- **Sports Clubs:** Individuals with common sports interests can participate in a variety of sports and activities ranging from soccer to roller hockey.
- **Recreational Swim:** This program utilizes two pools located directly south of the Activities Building. Specific hours are established for the program.

Student Publications

University Center • Box 19038 • 817-272-3661
www2.uta.edu/newspapers

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 twice a week during the summer semester.

Funded by the student activity fee and advertising sales, the newspaper is distributed in all campus buildings and 40 off-campus locations.

Students with journalism training and experience may apply for scholarships or paid positions. For information, call 817-272-3661.

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.

Student Conduct and Discipline

The University of Texas at Arlington reserves the right to impose disciplinary penalties, including permanent expulsion, against a student for disciplinary reasons. Information about the rules of conduct and due process procedures is published in Part One, Chapter VI, Sec. 3 of the *Rules and Regulations of the Board of Regents of The University of Texas System* available in the offices of the president, vice presidents, academic deans, numerous other administrative offices and the Central Library. The *Regents' Rules and Regulations* may be accessed at the following Web site: www.utsystem.edu/bor/tocrrr.htm. This information is also published in the *Handbook of Operating Procedures of The University of Texas at Arlington*, copies of which are available in the Office of the Senior Associate Vice President for Student Affairs, Lower Level, University Center.

Hazing

Under Chapter 37, Subchapter F of the *Texas Education Code*, individuals or organizations engaging in hazing could be subject to fines and charged with a criminal offense.

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; by intentionally, knowingly or recklessly allowing hazing to occur; or by failing to report firsthand information that a hazing incident is planned or has occurred in writing to the Vice President for Student Affairs. The fact that a person consented to or acquiesced in a hazing activity is not a defense to prosecution for hazing under this law.

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 Affairs 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 \$1,000, up to 180 days in jail, or both. Penalties for other hazing offenses vary according to the severity of the injury that results and range from \$500 to \$10,000 in fines and up to two years confinement.

The law defines hazing as an 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 that 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 of a harmful substance on the body or similar activity.
- Any type of physical activity, such as sleep deprivation, exposure to the elements, confinement in a small space, calisthenics or other activity that subjects the student to an unreasonable risk of harm or that adversely affects the mental or physical health or safety of the student.
- Any activity involving consumption of food, liquid, alcoholic beverage, liquor, drug or other substance that subjects the student to an unreasonable risk of harm or that adversely affects the mental or physical health 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 includes, causes or requires the student to perform a duty or task which involves a violation of the Penal Code.

The University may take disciplinary action for conduct that constitutes hazing regardless of whether authorities prosecute students under provisions of the state statute regarding hazing.

Academic Dishonesty

All students are expected to pursue their scholastic 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 guilty of dishonesty in their scholastic pursuits are subject to penalties which may include suspension or expulsion from the University.

Institutional procedures regarding charges of academic dishonesty are outlined in Part II, Chapter 2, of the *Handbook of Operating Procedures of The University of Texas at Arlington*. Copies of the handbook are available at more than 75 locations on campus, including the Student Congress Office, the Central Library and departmental offices. The handbook also may be accessed at the following Web site: <http://ais.uta.edu:80/policy/hop.shtml>

Grievances Other Than Grades

In attempting to resolve any student grievance, it is the obligation of the student first to 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, the academic dean if appropriate, 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 Part One, Chapter VI, Section 6.6 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 U.T. 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/tocrrr.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 U.T. 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** approved rules and regulations of U.T. Arlington, and applicable federal, state and local laws and regulations.

Graduate Admission and Programs

333 Davis Hall • Box 19167 • 817-272-2688 • www.uta.edu/orgs • graduate.school@uta.edu

Admission to the Graduate School

All correspondence concerning admission to The University of Texas at Arlington Graduate School should be addressed to the dean of graduate studies. All U.S. citizens and permanent residents with no foreign university work are required to pay a nonrefundable application evaluation charge of \$25. International students, permanent residents and U.S. citizens who have educational documents from outside the U.S. to be evaluated are required to pay a nonrefundable application evaluation charge of U.S. \$50.

Applicants for admission to most graduate programs must take, at their own expense, the Aptitude Test of the Graduate Record Examination (GRE) administered by the Educational Testing Service. The required aptitude test for the graduate programs in the College of Business Administration (with the exception of economics and health care administration) is the Graduate Management Admission Test (GMAT). The Test of English as a Foreign Language (TOEFL), administered by the Educational Testing Service, is required of international students whose native language is not English and who do not hold a bachelor's or master's degree from an accredited U.S. institution. The Test of Spoken English (TSE-A) is required for non-native speakers of English who plan to apply for teaching assistantships. If the TSE-A is taken, the TOEFL may not be required. The test scores will be used, with other data, to determine eligibility for admission and to aid in counseling the applicant after admission. The GRE, GMAT, TOEFL and TSE-A are given at various centers in the United States and in many other countries on at least four regularly established dates each year.

- Information bulletins and test application blanks for the GRE may be obtained from Educational Testing Service, Box 6000, Princeton, New Jersey 08541-6000, U.S.A., or by accessing www.gre.org.
- Information bulletins and test application blanks for the GMAT may be obtained from Educational Testing Service, Box 6103, Princeton, New Jersey 08541-6103, U.S.A., or by accessing www.gmat.org.
- Information bulletins and test application blanks for the TOEFL and TSE-A examinations may be obtained from the Test of English as a Foreign Language, Box 6151, Princeton, New Jersey 08541-6151, U.S.A., in foreign countries from American embassies and consulates and offices of the United States Information Service, or by accessing www.toefl.org.

Bulletins and test applications for these tests may also be obtained from the U.T. Arlington Office of Counseling and Career Development. **Because of the high demand placed on testing centers at many times of the year, applicants should register early for tests.**

For admission to certain graduate programs, additional tests may be required. This information is given in the individual program listings in the Graduate Catalog.

Application deadlines are published on the Graduate School Calendar on the inside covers of the Graduate Catalog. U.S. citizens should apply to the dean of graduate studies at least 90 days prior to beginning a semester or summer session in which they wish to register. International applicants or permanent residents should file an

application, with the required official transcripts of all previous college work and the application evaluation charge, at least 120 days prior to beginning a semester or summer session in which they plan to register.

Admission

To be eligible for consideration for admission to the Graduate School, applicants must: (1) hold a bachelor's degree from an accredited university or its equivalent from a foreign university; (2) make a satisfactory score on the Graduate Record Examination or Graduate Management Admission Test, as specified by the department or program to which application is being made, and the Test of English as a Foreign Language or the Test of Spoken English (TSE-A) as indicated previously if a non-native English speaker; (3) have demonstrated through previous academic performance the potential for graduate work in their chosen field. For complete information on admission to graduate programs, applicants should see the current Graduate Catalog and contact the Graduate Advisor of the program(s) in which they are interested.

After evaluation of an applicant's credentials by the graduate advisor in the applicant's major area and by the dean of graduate studies, applicants will be notified that (1) they have been accepted, (2) their application has been denied, or (3) a decision has been deferred for reasons listed in the notice. For those who have been accepted for admission, an acceptance letter will be issued by the dean of graduate studies stating the conditions of admission and period of validity for the acceptance.

Application materials may be obtained in Room 333, Davis Hall or by calling the Office of the Dean of Graduate Studies at 817-272-2688. A list of graduate advisors and the online version of the current Graduate Catalog can be found on the Graduate School Web page at www.uta.edu/orgs.

Procedure After Admission

After being admitted, the student should confer with the graduate advisor of the major area, preferably by personal interview, to become acquainted with specific departmental regulations, particularly in the case of areas that require additional examinations upon entrance. After receiving registration materials, students should consult the graduate advisor in the major area at the time and place indicated in registration instructions concerning the details of registration, course program and other routine matters.

It is important that a student wishing to take courses for graduate credit consult with the appropriate graduate advisor before registering, as each student's program of work for an advanced degree must eventually be approved by the graduate advisor, the student's supervising committee and the dean of graduate studies. Failure to consult with the graduate advisor could result in the student's enrolling for courses which would not be applied toward meeting the degree requirements.

Restriction on Admission

Because there may be more applicants than facilities can accommodate, it may be necessary to limit the number of students accepted for graduate work in certain areas.

Social Work considers new applicants for admission to fall semesters only.

Graduate Programs

U.T. Arlington currently offers the Doctor of Philosophy in:

1. Aerospace Engineering
2. Applied Chemistry
3. Biomedical Engineering
4. Business Administration
5. Civil Engineering
6. Computer Science
7. Computer Science and Engineering
8. Electrical Engineering
9. English
 - Areas of study:**
 - Literature
 - Rhetoric
10. Environmental Science and Engineering
11. History
12. Industrial Engineering
13. Linguistics
14. Materials Science and Engineering
15. Mathematical Sciences
 - Areas of study:**
 - Biology
 - Chemistry
 - Computer Science
 - Geology
 - Information Systems and Management Sciences
 - Mathematics
 - Physics
 - Psychology
16. Mechanical Engineering
17. Physics and Applied Physics
18. General Experimental Psychology
19. Quantitative Biology
20. Public and Urban Administration
21. Social Work

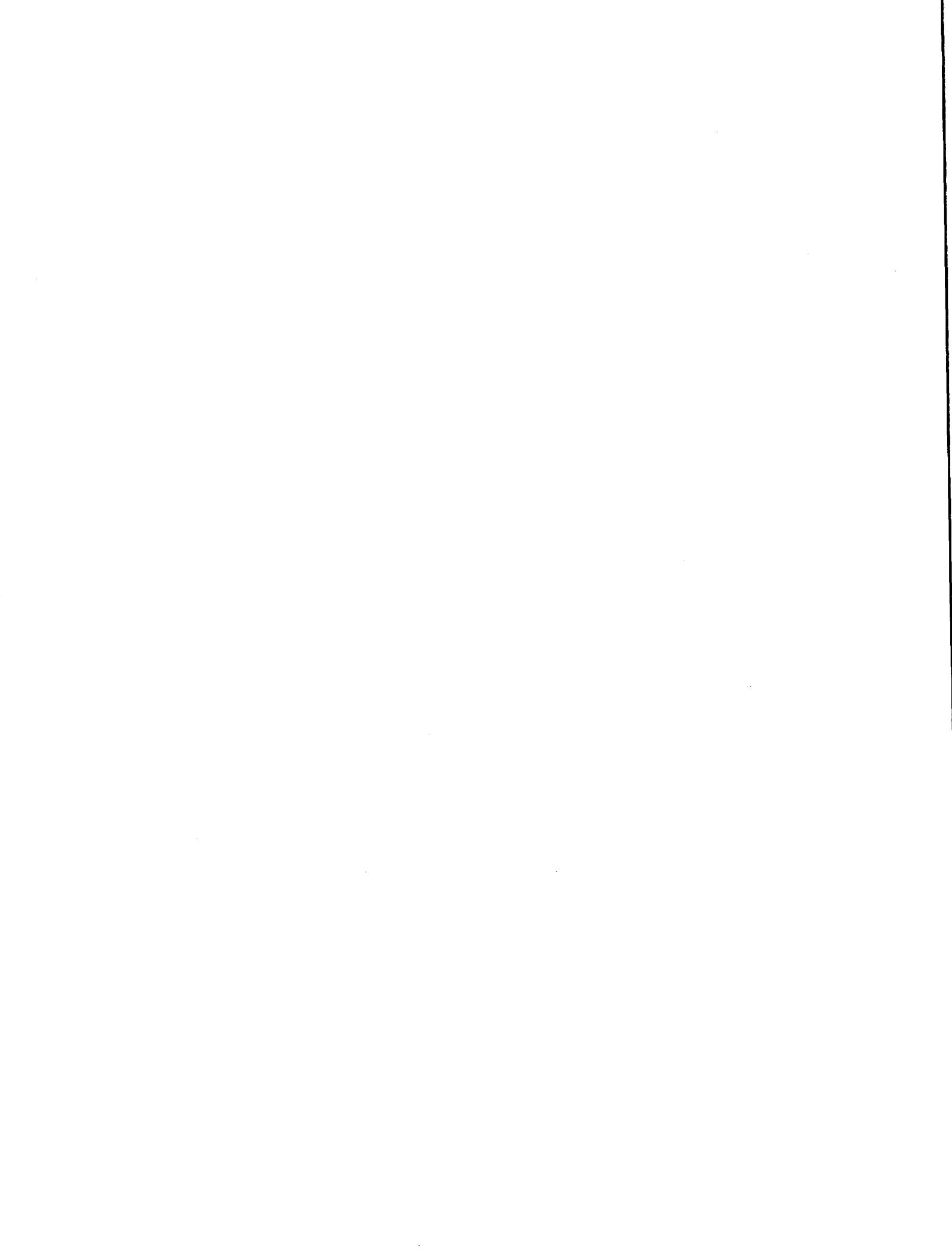
Master's level programs are available in:

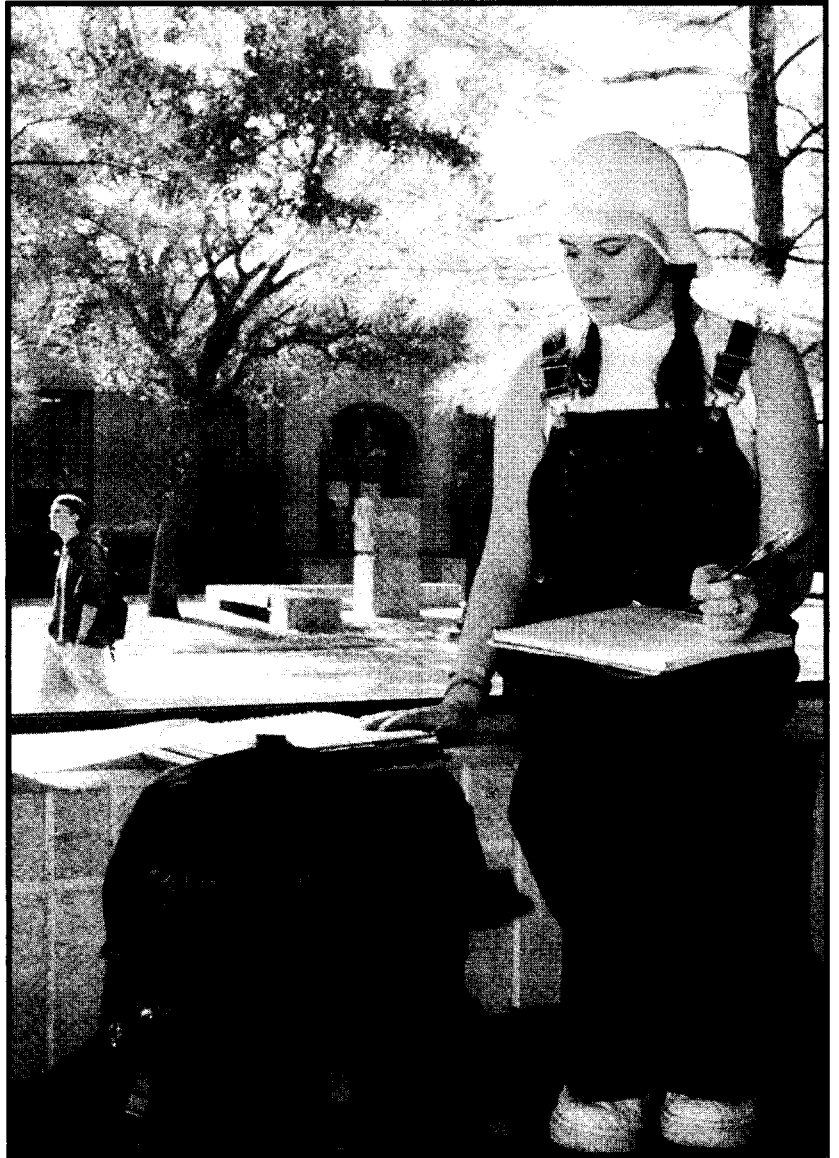
1. Accounting
2. Aerospace Engineering
3. Anthropology
4. Architecture
5. Biology
6. Biomedical Engineering
7. Business Administration
8. Chemistry
9. City and Regional Planning
10. Civil Engineering
11. Computer Science
12. Computer Science and Engineering
13. Criminology and Criminal Justice
14. Economics
15. Education
16. Electrical Engineering
17. English
18. Environmental Science and Engineering
19. French
20. Geology
21. German
22. Health Care Administration
23. History
24. Humanities
25. Industrial Engineering
26. Information Systems
27. Interdisciplinary Science
28. Interdisciplinary Studies
29. Landscape Architecture
30. Linguistics
31. Logistics
32. Management of Technology
33. Marketing Research
34. Materials Science and Engineering
35. Mathematics
36. Mechanical Engineering
37. Music
38. Nursing
39. Human Resource Management
40. Physics
41. Political Science
42. Professional Accounting
43. Psychology
44. Public Administration
45. Real Estate
46. Social Work
47. Sociology
48. Software Engineering
49. Spanish
50. Taxation
51. Urban Affairs

Common Course Number Index

U.T. 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 U.T. 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.

U.T. Arlington Course Number	Common Course Number	U.T. Arlington Course Number	Common Course Number	U.T. Arlington Course Number	Common Course Number
ACCT 2301	ACCT 2301	FREN 1442	FREN 1412	MUSI 2186	MUSI 2118
ACCT 2302	ACCT 2302	FREN 2313	FREN 2311	MUSI 1300	MUSI 1306
ADVT 2337	COMM 2327	FREN 2314	FREN 2312	MUSI 1301	MUSI 1301
ANTH 1306	ANTH 2346	GEOL 1425	GEOL 1401	MUSI 1325	MUSI 1311
ANTH 2322	ANTH 2351	GEOL 1426	GEOL 1402	MUSI 1326	MUSI 1312
ART 1301	ARTS 1301	GEOL 1435	GEOL 1403	MUSI 2325	MUSI 2311
ART 1305	ARTS 1311	GEOL 1436	GEOL 1404	MUSI 2326	MUSI 2312
ART 1306	ARTS 1312	GEOL 2445	GEOL 2409	PHIL 1300	PHIL 1301
ART 1307	ARTS 1316	GERM 1441	GERM 1411	PHIL 1301	PHIL 2302
ART 1309	ARTS 1303	GERM 1442	GERM 1412	PHIL 1304	PHIL 2306
ART 1310	ARTS 1304	GERM 2313	GERM 2311	PHYS 1445	PHYS 1411
ART 2308	ARTS 1317	GERM 2314	GERM 2312	PHYS 1446	PHYS 1412
BIOL 1301	BIOL 1322	HIST 1311	HIST 1301	PHYS 1401	PHYS 1405
BIOL 1333	BIOL 1408	HIST 1312	HIST 1302	PHYS 1402	PHYS 1407
BIOL 1282		HIST 2301	HIST 2311	PHYS 1441	PHYS 1401
BIOL 1334	BIOL 1409	HIST 2302	HIST 2312	PHYS 1442	PHYS 1402
BIOL 1441	BIOL 1406	JOUR 1345	COMM 2309	PHYS 1443	PHYS 2425
BIOL 1442	BIOL 1407	JOUR 2346	COMM 2310	PHYS 1444	PHYS 2426
BIOL 2457	BIOL 2401	LATN 1441	LATN 1411	POLS 2311	GOVT 2305
BIOL 2458	BIOL 2402	LATN 1442	LATN 1412	POLS 2312	GOVT 2306
CHEM 1301	CHEM 1411	LATN 2313	LATN 2311	PSYC 1315	PSYC 2301
CHEM 1284		LATN 2314	LATN 2312	PSYC 2310	PSYC 2320
CHEM 1302	CHEM 1412	MAE 1312	ENGR 2301	PSYC 2317 (BIOL)	PSYC 2306
CHEM 1445	CHEM 1405	MAE 2323	ENGR 2302	RUSS 1441	RUSS 1411
CHEM 1446	CHEM 1407	MATH 1302	MATH 1314	RUSS 1442	RUSS 1412
CHEM 2321	CHEM 2423	MATH 1303	MATH 1316	RUSS 2313	RUSS 2311
CHEM 2181, 2182		MATH 1308	MATH 1342	RUSS 2314	RUSS 2312
CHEM 2322	CHEM 2425	MATH 1315	MATH 1324	SOCI 1311	SOCI 1301
COMM 1300	COMM 1307	MATH 1316	MATH 1325	SOCI 2312	SOCI 1306
CSE 1301	COSC 1300	MATH 1325	MATH 1348	SOCW 2311	SOCW 2361
CSE 1310	COSC 1312	MATH 1426	MATH 2413	SPAN 1441	SPAN 1411
CRCJ 2334	CRIJ 1301	MATH 2325	MATH 2314	SPAN 1442	SPAN 1412
CRCJ 2340	CRIJ 2314	MATH 2326	MATH 2315	SPAN 2313	SPAN 2311
DG 1350	ENGR 1304	MUSI 1103	MUSI 1168	SPAN 2314	SPAN 2312
EE 2315	ENGR 2305	MUSI 1104	MUSI 1166	SPCH 0185	SPCH 1144
EE 2181	ENGR 2105	MUSI 2103	MUSI 1189	SPCH 1301	SPCH 1311
ECON 2305	ECON 2301	MUSI 2104	MUSI 1188	SPCH 1302	SPCH 1342
ECON 2306	ECON 2302	MUSI 1180	MUSI 1181	SPCH 2305	SPCH 1321
ENGL 1301	ENGL 1301	MUSI 1181	MUSI 1182	THEA 0181	DRAM 1120
ENGL 1302	ENGL 1302	MUSI 2180	MUSI 2181	THEA 1302	DRAM 2336
ENGL 2319	ENGL 2322	MUSI 2181	MUSI 2182	THEA 1304	DRAM 1330
ENGL 2309	ENGL 2332	MUSI 1185	MUSI 1116	THEA 1307	DRAM 1351
ENGL 2329	ENGL 2327	MUSI 1186	MUSI 1117	THEA 1343	DRAM 1310
FREN 1441	FREN 1411	MUSI 2185	MUSI 2116	THEA 2352	DRAM 1352





The Honors College

The Honors College

Dean: Carolyn A. Barros, Ph.D.

100 College Hall • Box 19222 • 817-272-7215 • <http://honors.uta.edu/> • honors@uta.edu

Honors Vision Statement

The Honors College is a community of student and faculty scholars who set the standard for academic excellence at The University of Texas at Arlington. The Honors College curriculum is designed to be interdisciplinary. Honors students are brought together from across campus and asked to integrate knowledge and perspectives from a wide range of subjects, to question the assumptions of particular disciplines, and to consider matters from many points of view. Honors faculty encourage students to think critically, broadly, openly, and creatively. The Honors curriculum complements and advances the goals of the traditional disciplines as learning is enhanced through a small-class environment and use of a variety of media, including the Internet. Special seminars, colloquia, and study-abroad programs promote cross-cultural understanding.

As members of the Honors College, students develop their skills, cultivate their talents, and become self-reliant scholars; they learn to ask the very best of themselves and prepare to assume positions of visionary leadership in academia, the arts and sciences, business and the community. In a world of isolated specialists, the Honors College offers essential training for valued citizens in a democracy.

In addition to a challenging curriculum, the Honors College regularly schedules social and intellectual activities that extend learning experiences beyond the classroom: Honors symposia, informal gatherings, lecture series, and artistic performances. The Honors College Council (HCC), elected from the Honors student body, is responsible, along with the Honors Faculty Advisory Council (HFAC), representatives from the Colleges, and the Honors Dean, for the ongoing operation of the Honors College.

Honors Affiliations

The U.T. Arlington Honors College is a member of the National Collegiate Honors Council (NCHC) and the regional Great Plains Honors Council (GPHC). U.T. Arlington's Honors College is the only such college in the North Texas area and only one of three in Texas.

Standards for Admission

The Honors College seeks students with broad interests, varied talents, and diverse cultural backgrounds. Admission is competitive. **Entering Freshman Honors applicants** (with less than 30 college hours) must have a combined score of 1200 SAT or 27 ACT and/or graduate in the top 10 percent of their high school class. **Continuing and transfer Honors applicants** (with more than 30 college hours) must have an overall GPA of 3.2.

Admission, however, is not based solely on grades or scores. The Admissions Committee (comprised of Honors faculty and staff) also considers faculty recommendations and applicant statements of purpose in the selection of potential candidates. Applications for admission are available in the Honors College Office or online: <https://honors.uta.edu/secure/applications/>

Requirements for Completing an Honors Degree

Honors degrees are granted in the disciplines of the university's eight schools and colleges: Architecture, Business Administration, Education, Engineering, Liberal Arts, Nursing, Science, Social Work and in Interdisciplinary Studies. To graduate with an Honors degree the student must be a member 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 (all of which may also fulfill university core or disciplinary major requirements):

- At least two Honors Seminars or Honors Special Topics Courses (6 hrs.)
- At least nine (9) advanced (3000 or 4000 level) Honors hours in the major to include:
 - Research Methods (3 hrs.) (Honors Research Colloquium, research in the major, or independent research)
 - Senior Research Thesis/Creative Project (3 hrs.)
 - A course for Honors credit (3 hrs.)
- 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 electives or Honors courses in the major.

Continuing U.T. Arlington students and transfer students who join the Honors College (with 60 hours or more) must complete only one Honors Seminar. The twenty-four (24) hour requirement for transfer students may be adjusted in some Colleges.

Sample Honors Degree Plans

Freshman Year

We recommend two possible sequences of courses for the freshman year depending on area of study.

Bachelor of Arts or Undeclared students

First Semester

HONR 1100 Honors
Enrichment (1 hr.)
HONR 2611 Honors
American Studies I: History and Literature (6 hrs.)
HONR 2311 Honors
American Studies I: Politics (3 hrs.)
Additional course work as recommended by major

Bachelor of Science

First Semester

HONR 1100 Honors
Enrichment (1 hr.)
HONR 2300 Honors
Freshman Seminar (3 hrs.)
Choice of Honors Sciences:
BIOL 1441 Cell and Molecular Biology (4 hrs.)
CHEM 1301 General Chemistry I (3 hrs.)
GEOL 1425 Earth Systems (4hrs.)
PHYS 1443 General Technical Physics I (4 hrs.)
MATH 1426 Honors
Calculus I (4 hrs.)
Additional course work as recommended by major

Bachelor of Arts or Undeclared studentsSecond Semester

HONR 2612 Honors
American Studies II:
History and Politics (6 hrs.)
HONR 2312 Honors
American Literature (3 hrs.)
MATH 1313 Honors
Liberal Arts Math (3 hrs.)
Additional course work
as recommended by major

Sophomore YearFirst Semester

HONR 4144/4244/4344 Honors Service Learning Opportunities
(1, 2 or 3 hrs.)
Honors Science or Math
Additional course work as recommended for the major*

Second Semester

Honors Science, Math or Elective
Additional course work as recommended for the major*

Summer

Students may consider participating in Honors Study Abroad for college credit

Junior YearFirst Semester

Honors Service Learning, Internship, Independent Research or Elective
Additional course work as recommended for the major*

Second Semester

HONR 3390 Honors Research Colloquium or Research Methods course in your major
Additional course work as recommended for the major*

Senior YearFirst Semester

Honors Research Thesis/Creative Project in the major
Honors Service Learning, Internship, Independent Research or Elective
Additional course work as recommended for the major*

Second Semester

Complete Thesis and Oral Presentation Requirements
HONR 4303 Honors Senior Seminar
HONR 4320 Honors Internship/Research Assistantship
Additional course work as recommended for the major*

* Students may complete courses within their major for Honors credit. Consult your Honors Advisor for details.

Bachelor of ScienceSecond Semester

Choice of Honors Sciences:
BIOL 1442 Structure and Function of Organisms (4 hrs.)
CHEM 1302/1284 General Chemistry II/Lab (5 hrs.)
GEOL 1426 Earth Systems History (4 hrs.)
PHYS 1444 General Technical Physics II (4 hrs.)
MATH 2325 Honors Calculus II (3 hrs.)
Additional course work
as recommended by major

Privileges for Honors Students

It is impossible to measure the Honors College in terms of its many intangible benefits; participation itself forms the basis for gain. Some of the more tangible benefits are:

- Priority Registration
- Innovative Classes
- Honors Scholarships
- Study Abroad Programs and Scholarships
- Community Service Learning Opportunities
- Research Assistantships
- Internships Home and Abroad
- Honors Listserv
- Extended Check-out Privileges with the University Library System
- Honors Student Library/Lounge/Computer Laboratory
- Special Honors Events
- Honors Degree Designation on Diploma and Transcript
- Special Recognition at Graduation
- Honors Graduation Stole
- Honors Bridge to Graduate School Scholarships
- Graduate and Professional School Advising

Honors Students and the University Library System

<http://www.uta.edu/library/>

Honors students, because of their commitment to self-reliant learning and independent research, enjoy a special relationship with the University library system. In addition to extended check-out privileges, Honors students are assigned a research librarian, encouraged to work in U.T. Arlington's Special Collections, and to access the Honors Library Link, an internet system that provides research links for all Honors courses.

Honors Scholarships

<http://honors.uta.edu/scholarship.asp>

The Honors College, in conjunction with the U.T. Arlington Scholarship Office, annually awards numerous Honors Scholarships. Some scholarships are renewable up to three additional years for students who maintain Honors requirements. Applications are available in the Honors College Office and online. Information on departmental and organizational scholarships and financial aid is available in the Scholarship and Financial Aid Offices, 252 Davis Hall.

Honors Bridge to Graduate School

<http://honors.uta.edu/bridge.asp>

The Honors College offers competitive scholarships for students seeking enrollment in any one of U.T. Arlington's graduate programs. In addition, Honors students may be eligible for advanced admission notice and, depending on the graduate program, exemption from the GRE. Honors seniors are encouraged to consult the graduate advisor of their prospective departments and the Honors College.

Honors Undergraduate Research Programs

<http://honors.uta.edu/irprograms.asp>

Honors Undergraduate Research Programs in concert with U.T. Arlington's other schools and colleges place students in research assistantships in their disciplines. Information and applications are available in the Honors College Office.

Honors Research Thesis/Creative Project

<http://honors.uta.edu/thesis.asp>

All Honors students will complete a research thesis or creative project that demonstrates Honors competence in the major field. The thesis/project offers students the opportunity to complete sustained original research or creative activity. Students in the sciences and humanities advance their research skills significantly, while students in the creative arts and technologies polish and perfect their crafts. The Honors thesis/project may well be the student's most valuable educational experience. The thesis/project requires that students examine complex objects, ideas, and issues carefully and assumes that students will submit work that meets the scholarly expectations of the discipline and the Honors College.

Honors Study Abroad

<http://honors.uta.edu/abroad.asp>

The Honors Study Abroad Program offers opportunities for students to acquire new knowledge and understanding of the people, events, movements, ideas, and objects 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. Skillful instruction and intensive on-site learning in places as diverse as Scotland, Italy, Africa, and the Czech Republic are hallmarks of the study abroad experience. Scholarships are available from both the Honors College and the Office of International Studies (<http://www.uta.edu/io/sab/index.htm>).

Honors Internships Home/Abroad

<http://honors.uta.edu/irprograms.asp>

Honors students are encouraged to work in their fields prior to graduation. Internships may be assigned locally, nationally and internationally. Honors Teacher Certification candidates may complete student teaching in other countries (as approved by the School of Education). Scholarships and stipends are available. Contact the Honors College Office for information and applications.

Honors Advising

The Honors College advising staff counsels students regarding Honors course work, long-range academic planning, and professional goal-setting. Honors degree planning and advising are available in the student's major discipline. In addition, Honors students are encouraged to meet with the major advisor each semester prior to Honors advising and registration.

Probation Policy

<http://honors.uta.edu/probation.asp>

Honors students in good standing must maintain a 3.2 GPA. Students who drop below this requirement must petition the Honors College for continuance and must develop a plan to return to good standing.

Honors Academy

The U.T. Arlington 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 U.T. 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 UTA Honors College for more information regarding dual credit.

Honors Academy students must submit:

- Applications for both general admission and 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 U.T. Arlington **must complete** a Freshman Application for Admission and submit an official final high school transcript.

Honors Courses

<http://honors.uta.edu/courses.asp>

Honors courses or their designated disciplinary equivalents satisfy Honors, departmental, college, and university requirements. The Honors College will provide departmental advisors with equivalency/substitution information. The University's oral competency requirement may be fulfilled by presenting the research thesis/creative project in a faculty-reviewed forum. The computer competency requirement may be met by completing the Honors Multimedia Authoring Course (HONR 3374).

Honors (HONR)

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.

1100. HONORS ENRICHMENT SERIES (0-2) 1 HOUR CREDIT.

Honors students will attend eight (8) on-campus and two (2) off-campus performances, exhibits, and/or lectures in the arts and sciences and submit brief response reports. Selections will be made from U.T. Arlington and Metroplex program listings. Required of all Honors Freshmen. May be repeated for up to 3 hours credit by all Honors students.

2300. HONORS INTERDISCIPLINARY SEMINAR IN HUMANITIES AND FINE ARTS (3-0) 3 HOURS CREDIT. Team-taught interdisciplinary course in World Studies from multiple perspectives—philosophy, literature, fine arts—around a theme of current or enduring interest. Meets a three-hour core requirement in literature, the fine arts, or humanities. HONR 2300 meets the Fine Arts requirement of the core curriculum.

2301. HONORS INTERDISCIPLINARY SEMINAR IN THE SCIENCES (3-0) 3 HOURS CREDIT. Team-taught, interdisciplinary foundations in science course. Cross-listed with Science 2301.

2302. HONORS INTERDISCIPLINARY SEMINAR IN SOCIAL SCIENCES (3-0) 3 HOURS CREDIT. Team-taught, interdisciplinary social sciences course. Meets the University core requirement for a 3-hour social science.

HONR 2302 meets the Social/Cultural Studies requirement of the core curriculum.

2103/2203/2303. HONORS SPECIAL TOPICS (1/2/3-0) 1,2,3 HOURS CREDIT. Special topics in Honors. Topics, format, and prerequisites to be determined by the Honors Faculty Advisory Council. May be repeated for credit as topics change.

3374. HONORS INTERDISCIPLINARY SEMINAR IN MULTIMEDIA AUTHORING (3-0) 3 HOURS CREDIT. Team-taught, interdisciplinary, group-oriented introduction to Multimedia Authoring. An emphasis on constructing Web pages and writing intensive and research oriented projects for academic, business and/or creative audiences.

3390. HONORS RESEARCH COLLOQUIUM (3-0) 3 HOURS CREDIT. Students prepare an abstract, prospectus, and annotated bibliography and deliver oral presentations of their research in preparation for the Senior Research Thesis/Creative Project. Cross-listed with departmental Honors Colloquia courses.

4103/4203/4303. HONORS ADVANCED SPECIAL TOPICS (1/2/3-0) 1,2,3 HOURS CREDIT. Advanced special topics in Honors. Topics, format, and prerequisites to be determined by the Honors Faculty Advisory Council. May be repeated for credit as topics change.

4310. HONORS STUDY ABROAD (3-0) 3 HOURS CREDIT. Interdisciplinary team-taught course in an out-of-country location around a theme/topic appropriate to the location. Journal and term paper required.

HONR 4310 meets the Social/Cultural Studies requirement of the core curriculum.

4320. HONORS INTERNSHIP HOME/ABROAD (3-0) 3 HOURS CREDIT. Supervised employment in student's area(s) of interest. Journal and term paper required. Cross-listed with departmental internship courses.

HONR 4320 may meet the Social/Cultural Studies requirement of the core curriculum.

4144/4244/4344. HONORS SERVICE LEARNING OPPORTUNITIES (1/2/3-0) 1,2,3 HOURS CREDIT. Credit will be given for supervised service to a community agency. The service must be related to formal course work and approved by a faculty mentor and a degree plan advisor. Prerequisite: Junior standing or permission of the Honors College Dean. Graded P/F.

4394. HONORS SENIOR RESEARCH THESIS/CREATIVE PROJECT (3-0) 3 HOURS CREDIT. 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 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 in the *Honors College Guide for Students and Their Mentors*. Cross-listed with departmental thesis courses.

Honors American Studies Sequence

The Honors American Studies Sequence introduces students to the American experience through a multidisciplinary investigation of the concepts, theories and phenomena of past and present in the United States. The American Studies Sequence is a foundational course, designed to equip students with critical thinking skills and to teach them how to examine a question or theme integral to American thought and culture. In addition to the enriched classroom environment and the integration of course material, student learning will be enhanced by guest speakers, field trips, service projects, and student-led oral presentations. The Honors American Studies Sequence fulfills the University core requirements in History, Political Science, and Literature. American Studies Sequence I combines politics and themes in American history and literature (HONR 2311 and 2611). American Studies Sequence II combines themes in American literature with themes in American history and politics (HONR 2312 and 2612).

2311. HONORS AMERICAN STUDIES I: POLITICS (3-0) 3 HOURS CREDIT. This course will explore the U.S. government at the national and sub-national levels. Students will develop an understanding of the role of citizens in the political process and of the functioning of institutions of government. Topics will include: the U.S. Constitution; the Texas Constitution; civil liberties and civil rights; political institutions; voting and elections; and parties and interest groups. This first course in the Sequence will include material currently covered in POLS 2311 and POLS 2312. While this course grants credit for Political Science 2311, students are expected to enroll in both semesters of the Sequence in order to receive credit for both POLS 2311 and POLS 2312.

2611. HONORS AMERICAN STUDIES I: THEMES IN AMERICAN HISTORY AND LITERATURE (6-0) 6 HOURS CREDIT. This six-hour, team-taught interdisciplinary course is built around a selected theme of the American Studies Sequence. Each year's theme will be explored from the perspective of both History and English, using history and literature texts from and about the Colonial Era to the Civil War. As part of a two-semester American Studies Sequence this six-hour course includes material currently covered in History 1311 and English 2371 and meets the university requirement for History 1311 and the three-hour literature requirement.

2312. HONORS AMERICAN STUDIES II: THEMES IN AMERICAN LITERATURE (3-0) 3 HOURS CREDIT. In this course the theme of the American Studies Sequence is continued from a literary perspective. This course covers material currently taught in English 2372 and completes the American Literature portion of the American Studies Sequence. The only course in the Sequence that is optional, students are encouraged to enroll for the final course in the Sequence. The course meets a three-hour university requirement for a literature or humanities elective.

2612. HONORS AMERICAN STUDIES SEQUENCE II: THEMES IN AMERICAN HISTORY AND POLITICS (6-0) 6 HOURS CREDIT.

This six-hour, team-taught interdisciplinary course continues the theme of the American Studies Sequence begun in the first semester of the Sequence. Particular public policies, drawn from the theme, will be analyzed using the methodologies of political science and history. Students will be expected to apply the information from the first semester of the Sequence to these modern issues. This six-hour course meets university requirements for History 1312 and Political Science 2312.

Special Honors Sections of Department, College and University Requirements

Freshman Composition

Honors students are encouraged to seek CLEP credit for Freshman English 1301/1302. Students may also receive credit for English 1301/1302 by demonstrating sophomore level writing competency in Honors Interdisciplinary Seminars in the Humanities/Fine Arts or the American Studies Sequence.

Honors Sections of University Core Requirements.

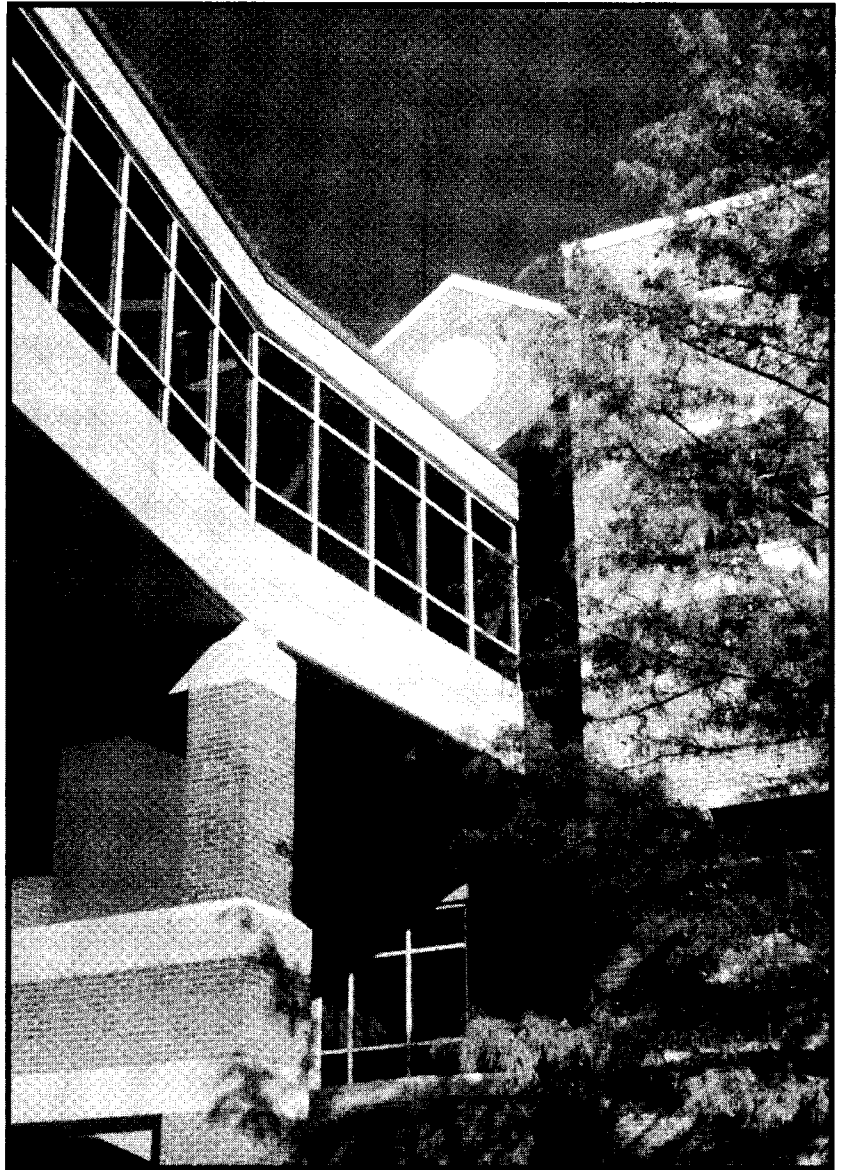
Honors sections of University core requirements are offered in Biology 1441, 1442; Chemistry 1301/1302/1284; Geology 1425, 1426; Mathematics 1313 (Honors Liberal Arts Math), 1426 (Calculus I), 2325 (Calculus II); Physics 1443/1444.

Honors Sections of Business Core Requirements.

Honors sections of core Business courses are available. See the Honors Business Advisor.

Honors Credit for Non-Honors Courses

To complete Honors graduation requirements, Honors students may earn Honors credit for non-Honors courses. To receive Honors credit the student must complete regular course requirements with a grade of A or B. In addition, the student must complete an independent Honors assignment as agreed upon by the professor and the student. The Honors Dean or Honors Advisor must approve all Honors credit for non-Honors courses. Approval forms are available in the Honors College Office or online.



The School of Architecture

The School of Architecture

Dean: Martha E. LaGess, B.Arch.

203 Architecture Bldg. • Box 19108 • 817-272-2801 • www.uta.edu/architecture

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

Students enrolling in Major Studies courses (3000/4000 level) within the School of Architecture must have been admitted to the School of Architecture.

To be admitted to the School of Architecture, students must have completed all requirements for admission to a degree program as stated under the Degree Program entry in this catalog and have a 2.3 GPA in all courses at U.T. Arlington as well as a 2.3 GPA in all courses within the School of Architecture.

Students fulfilling all requirements for an architecture or interior design major must notify the school to confirm enrollment in the major.

Special Academic Requirements

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

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 Bachelor of Science Degree in Architecture

Architecture

1301, 1302, 1241, 1242, 2303, 2304, 2551, 2552, 3323, 3324, 3337, 3343, 3553, 3554, 4327, 4328, 4556, 4557.

English

Six hours of composition.

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.

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—1324 and 1325 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 Electives

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

Advanced Electives

27 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

138 hours, of which at least 36 hours must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA), ROTC, or marching band as required.

Suggested Course Sequence

Freshman Year

First Semester: ARCH 1301; ARCH 1241; ENGL 1301; Political Science, 3 hours; MATH 1324; Social Science, 3 hours; EXSA or ROTC or Marching Band—Total Credit 18 hours.

Second Semester: ARCH 1302; ARCH 1242; ENGL 1302; Political Science, 3 hours; MATH 1325; University Elective, 3 hours; EXSA or ROTC—Total Credit 18 hours.

Sophomore Year

First Semester: ARCH 2551; ARCH 2303; PHYS 1441; History, 3 hours; English (literature), 3 hours—Total Credit 18 hours.

Second Semester: ARCH 2552; ARCH 2304; PHYS 1442; History, 3 hours; English (literature), 3 hours—Total Credit 18 hours.

Refer to catalog for Entrance Requirements to Major Studies.

Junior Year

First Semester: ARCH 3553; ARCH 3343; ARCH 3323; University Elective, 3 hours; Advanced Elective, 3 hours; EXSA or ROTC or Marching Band—Total Credit 18 hours.

Second Semester: ARCH 3554; ARCH 3337; ARCH 3324; Advanced Elective, 6 hours; EXSA or ROTC—Total Credit 18 hours.

Senior Year

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

First Semester: ARCH 4556; ARCH 4327; Advanced ARCH History Elective, 3 hours; Advanced Electives, 6 hours—Total Credit 17 hours.

Second Semester: ARCH 4557; ARCH 4328; Advanced School Elective, 3 hours; Advanced Electives, 6 hours—Total Credit 17 hours.

Requirements for a Bachelor of Science Degree in Interior Design

Architecture

1301, 1302, 1241, 1242, 2303, 2304, 2551, 2552, 3323, 4325, 4329, 4348.

Interior Design

3305, 3321, 3322, 3343, 3345, 3553, 3555, 4332, 4345, 4368, 4369, 4562, 4563.

Art

Three hours advanced history, approved.

English

Six hours of composition.

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.

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 (1302 and 1303) 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.

University Electives

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

Advanced Electives

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

Total

138 hours, of which at least 36 hours must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA), ROTC, or marching band as required.

Suggested Course Sequence

Freshman Year

First Semester: ARCH 1301; ARCH 1241; ENGL 1301; History, 3 hours; MATH 1302 or 1324; Political Science, 3 hours; EXSA or ROTC or Marching Band—Total Credit 18 hours.

Second Semester: ARCH 1302; ARCH 1242; ENGL 1302; History, 3 hours; MATH 1303 or 1325; Political Science, 3 hours; EXSA or ROTC—Total Credit 18 hours.

Sophomore Year

First Semester: ARCH 2551; ARCH 2303; PHYS 1401; English (literature), 3 hours; Social Science, 3 hours—Total Credit 18 hours.

Second Semester: ARCH 2552; ARCH 2304; PHYS 1402; English (literature), 3 hours; University Elective, 3 hours—Total Credit 18 hours.

Refer to catalog for Entrance Requirements to Major Studies.

Junior Year

First Semester: INTD 3553; INTD 3343; ARCH 3323; INTD 3321; INTD 3305; EXSA or ROTC or Marching Band—Total Credit 18 hours.

Second Semester: INTD 3555; INTD 3345; INTD 3322; Advanced Art History, 3 hours; ARCH 4348; EXSA or ROTC—Total Credit 18 hours.

Senior Year

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

First Semester: INTD 4562; INTD 4368; ARCH 4325; ARCH 4345; Advanced Elective, 3 hours—Total Credit 17 hours.

Second Semester: INTD 4563; INTD 4369; INTD 4332; ARCH 4329; Advanced Elective, 3 hours—Total Credit 17 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:

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

School of Architecture Faculty

Dean

Professor LaGess

Professors

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

Associate Professors

Boswell, Gintole, Guy, Maruszczak, Pinno, Wright, Yardley

Associate Professor

Millican

Instructor

Foster, Quevedo

Senior Lecturers

Boles, James, Lawson

Architecture (ARCH)

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.

Basic Studies

(Required for all Bachelor of Science degrees from the School of Architecture)

1241. DESIGN COMMUNICATION I (1-3) 2 hours credit. The development of visual perception and graphic communication utilizing an intensive investigation of freehand drawing.

1242. DESIGN COMMUNICATION II (1-3) 2 hours credit. A continuation of ARCH 1241 with emphasis on refined technique and more complex drawing problems. Prerequisite: ARCH 1241.

1301. INTRODUCTION TO ARCHITECTURE AND THE DESIGN PROFESSIONS I (3-0) 3 hours credit. The interrelationships between society, culture, and the built environment.

1302. SURVEY OF ARCHITECTURAL PRINCIPLES IN THE DESIGN PROFESSIONS (3-0) 3 hours credit. Architectural principles in the allied design disciplines of interior design, landscape architecture, and urban design.

2300. MASTERWORKS OF WESTERN ARCHITECTURE (3-0) 3 hours credit. 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.

2303. HISTORY OF ARCHITECTURE AND DESIGN I (3-0) 3 hours credit. 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 pre-history through the Middle Ages.

2304. HISTORY OF ARCHITECTURE AND DESIGN II (3-0) 3 hours credit. 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. Prerequisite: ARCH 2303.

2551. BASIC DESIGN AND DRAWING I (3-6) 5 hours credit. 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. Prerequisites: ARCH 1301 and 1241, credit or concurrent enrollment in ARCH 1302, 1242, 2303.

2552. BASIC DESIGN AND DRAWING II (3-6) 5 hours credit. A continuation of ARCH 2551 with emphasis on three-dimensional design fundamentals with small-scale spatial and architectural applications. Prerequisites: ARCH 2551, credit or concurrent enrollment in ARCH 2304.

Major Studies (Refer to Entrance Requirements to Major Studies)

3301. URBAN SEMINAR (3-0) 3 hours credit. A multidisciplinary course for advanced undergraduate students in the honors program. Aspects of the built urban environment in relation to social, political, economic, and other factors. Prerequisite: participation in the honors program or permission of instructor.

3323. CONSTRUCTION MATERIALS AND STRUCTURAL CONCEPTS (3-0) 3 hours credit. The nature of materials and structural concepts to be used in the construction process. Prerequisite: junior standing in the school.

3324. STRUCTURES I (3-0) 3 hours credit. An introduction to architectural structures, including statics and strength of materials, with emphasis on design in timber. Prerequisites: ARCH 3323, PHYS 1441, MATH 1324, 1325.

3337. SITE DEVELOPMENT (3-0) 3 hours credit. The site development process including site planning relating to land use, siting of structures, infrastructure, and topography. Prerequisite: junior standing.

3343. DESIGN COMMUNICATION III (2-4) 3 hours credit. An advanced course to develop visual sensitivity and awareness of graphic techniques to enable the student to study design ideas and present those ideas in the various design disciplines. Emphasis on the relationship of communication skills with the design process. Prerequisite: ARCH 2552.

3553. DESIGN STUDIO: ARCHITECTURE I (3-6) 5 hours credit. 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.

3554. DESIGN STUDIO: ARCHITECTURE II (3-6) 5 hours credit. A continuation of ARCH 3553, with an increased complexity and scale of projects, incorporating a variety of design theory and technical/site considerations. Prerequisites: ARCH 3343 and 3553 and credit or concurrent enrollment in ARCH 3324 and 3337.

4191, 4391, 4591. CONFERENCE COURSES (Variable credit of 1, 3, or 5 semester hours as arranged). Independent study guided by an instructor on a regular basis. May be repeated for credit. Prerequisites: consent of the school.

4195, 4395, 4595. SELECTED TOPICS IN ARCHITECTURE (Variable credit of 1, 3, or 5 semester hours as arranged). Studio and lecture courses to explore and present selected topics in architecture and design. May be repeated for credit as topics change. Prerequisite: consent of the school and completion of or concurrent enrollment in a 3000-level school course.

4304. VESSELS (3-0) 3 hours credit. The design of objects for the post-Industrial Age, including vehicles, furniture, jewelry, household objects, and clothing.

4305. THE CITY OF ROME (3-0) 3 hours credit. 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. Appropriate elective for non-majors.

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.

4307. THEORY OF CITY PLANNING (3-0) 3 hours credit. The theory and practice of the physical aspects of city planning and how it is linked to and impacts the social, economic, and political aspects of planning. Prerequisite: junior standing.

4308. HISTORY OF URBAN FORM (3-0) 3 hours credit. The history of cities as physical form, influenced by political, economic, and social forces.

4309. THE CITY OF LONDON (3-0) 3 hours credit. 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. Appropriate elective for non-majors.

4310. AMERICAN ARCHITECTURE (3-0) 3 hours credit. Architecture of the United States from the 17th Century to World War I.

4311. ARCHITECTURAL THEORY (3-0) 3 hours credit. 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. Prerequisites: junior standing.

4314. HISTORIC PRESERVATION AND RESTORATION (3-0) 3 hours credit. 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: junior standing.

4315. TOPICS IN THE HISTORY OF ARCHITECTURE AND DESIGN (3-0) 3 hours credit. 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. Prerequisites: ARCH 2303, 2304 and junior standing.

4316. MODERN ARCHITECTURE I (3-0) 3 hours credit. 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 Prerequisites: ARCH 2303, 2304 and junior standing.

4317. MODERN ARCHITECTURE II (3-0) 3 hours credit. Development of 20th Century architecture from the diffusion of modernism in the 1930s to the present day. Prerequisites: ARCH 2303, 2304 and junior standing.

4318. RENAISSANCE ARCHITECTURE (3-0) 3 hours credit. Development of Renaissance and Mannerist architecture in Italy and its diffusion throughout Europe in the 15th and 16th Centuries. Prerequisites: ARCH 2303, 2304 and junior standing.

4320. BAROQUE ARCHITECTURE (3-0) 3 hours credit. 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. Prerequisites: ARCH 2303, 2304 and junior standing.

4325. ENVIRONMENTAL CONTROL SYSTEMS I (3-0) 3 hours credit. Acoustics and illumination and their significance in the total design. Prerequisite: junior standing.

4326. ENVIRONMENTAL CONTROL SYSTEMS II (3-0) 3 hours credit. Climate controls, mechanical and electrical systems, and their significance in the total design. Prerequisites: ARCH 4325 and junior standing.

4327. STRUCTURES II (3-0) 3 hours credit. Concepts and applications of structural design in structural steel. Prerequisite: ARCH 3324, or CE 2311 and 3311.

4328. STRUCTURES III (3-0) 3 hours credit. Concepts and applications of structural design in reinforced concrete. Prerequisite: ARCH 4327.

4329. COMPUTERS AND DESIGN (2-4) 3 hours credit. The range and potential of digital computer applications in the design professions. Prerequisite: junior standing.

4330. ENERGY USE AND CONSERVATION IN ARCHITECTURE (3-0) 3 hours credit. Basic concepts of the efficient use and conservation of energy related to architectural design principles. Prerequisite: junior standing.

4343. PROBLEMS IN DESIGN, MATERIALS, AND FABRICATION (3-0) 3 hours credit. 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. Course may be repeated for credit as emphasis varies. Prerequisite: junior standing.

4344. CONCEPTUAL DRAWING (3-0) 3 hours credit. A seminar to explore the aspects of conceptual drawing for the architect and the relationship of design ideas in the drawing process. May be repeated for credit.

4346. CONSTRUCTION DRAWINGS I (2-4) 3 hours credit. The techniques of building construction, the communication of technical information, and the process of preparing contract drawings for construction. May be repeated for credit.

4347. CONSTRUCTION DRAWINGS II (2-4) 3 hours credit. 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 4346.

4348. ARCHITECTURAL PHOTOGRAPHY I (2-4) 3 hours credit. 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: junior standing.

4349. ARCHITECTURAL PHOTOGRAPHY II (1-6) 3 hours credit. 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. May be repeated for credit.

4353. HISTORY OF LANDSCAPE ARCHITECTURE (3-0) 3 hours credit. 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: junior standing.

4556. DESIGN STUDIO: ARCHITECTURE III (3-6) 5 hours credit. Advanced architectural design problems in programming schematic organization, synthesis and design of buildings in their environmental context. Prerequisites: ARCH 3324, 3337, 3343, and 3554, and credit or concurrent enrollment in ARCH 4327.

4557. DESIGN STUDIO: ARCHITECTURE IV (3-6) 5 hours credit. Advanced architectural design problems in programming, schematic organization, synthesis and design of buildings in their environmental context. Prerequisite: ARCH 4556.

Interior Design (INTD)

(Refer to catalog for Entrance Requirements to Major Studies)

3305. HISTORY OF INTERIOR DESIGN (3-0) 3 hours credit. A historical and analytical review of interior spaces and furnishings throughout history, with emphasis on the post-medieval periods.

3321. INTERIOR MATERIALS I (3-0) 3 hours credit. The properties and applications of materials used in interior spaces. Prerequisite: junior standing in school or permission of advisor.

3322. INTERIOR MATERIALS II (3-0) 3 hours credit. A continuation of INTD 3321. Prerequisite: INTD 3321.

3343. INTERIOR DESIGN COMMUNICATION III (2-4) 3 hours credit. An advanced course to develop visual sensitivity and awareness of graphic techniques to enable the student to study design ideas and present those ideas in the various environmental design disciplines. Emphasis on the relationship of communication skills with the design process.

3345. INTERIOR DESIGN COMMUNICATION IV (2-4) 3 hours credit. An advanced course to develop visual sensitivity and skills in graphic and media techniques for the study and presentation of interior design.

3553. DESIGN STUDIO: INTERIOR DESIGN I (3-6) 5 hours credit. The analysis, planning, and design of interior spaces. Prerequisites: credit or concurrent enrollment in INTD 3343 or INTD 3345.

3555. DESIGN STUDIO: INTERIOR DESIGN II (3-6) 5 hours credit. The analysis, planning, and design of interior spaces. Prerequisites: credit or concurrent enrollment in INTD 3343 or INTD 3345.

4191, 4391, 4591. CONFERENCE COURSES (Variable credit of 1, 3, or 5 semester hours as arranged). Independent study guided by an instructor on a regular basis. May be repeated for credit. Prerequisites: consent of the school.

4195, 4395, 4595. SELECTED TOPICS IN INTERIOR DESIGN (Variable credit of 1, 3, or 5 semester hours as arranged). Studio and lecture courses to explore and present selected topics in interior design. May be repeated for credit as topics change. Prerequisite: consent of the school.

4332. PROFESSIONAL PRACTICE: INTERIOR DESIGN (3-0) 3 hours credit. Business procedures, contracts, and ethics essential to the profession. Prerequisite: junior standing in the school.

4345. ARCHITECTURAL GRAPHICS (2-4) 3 hours credit. Graphic and signage problems for interior and exterior environments. Visual

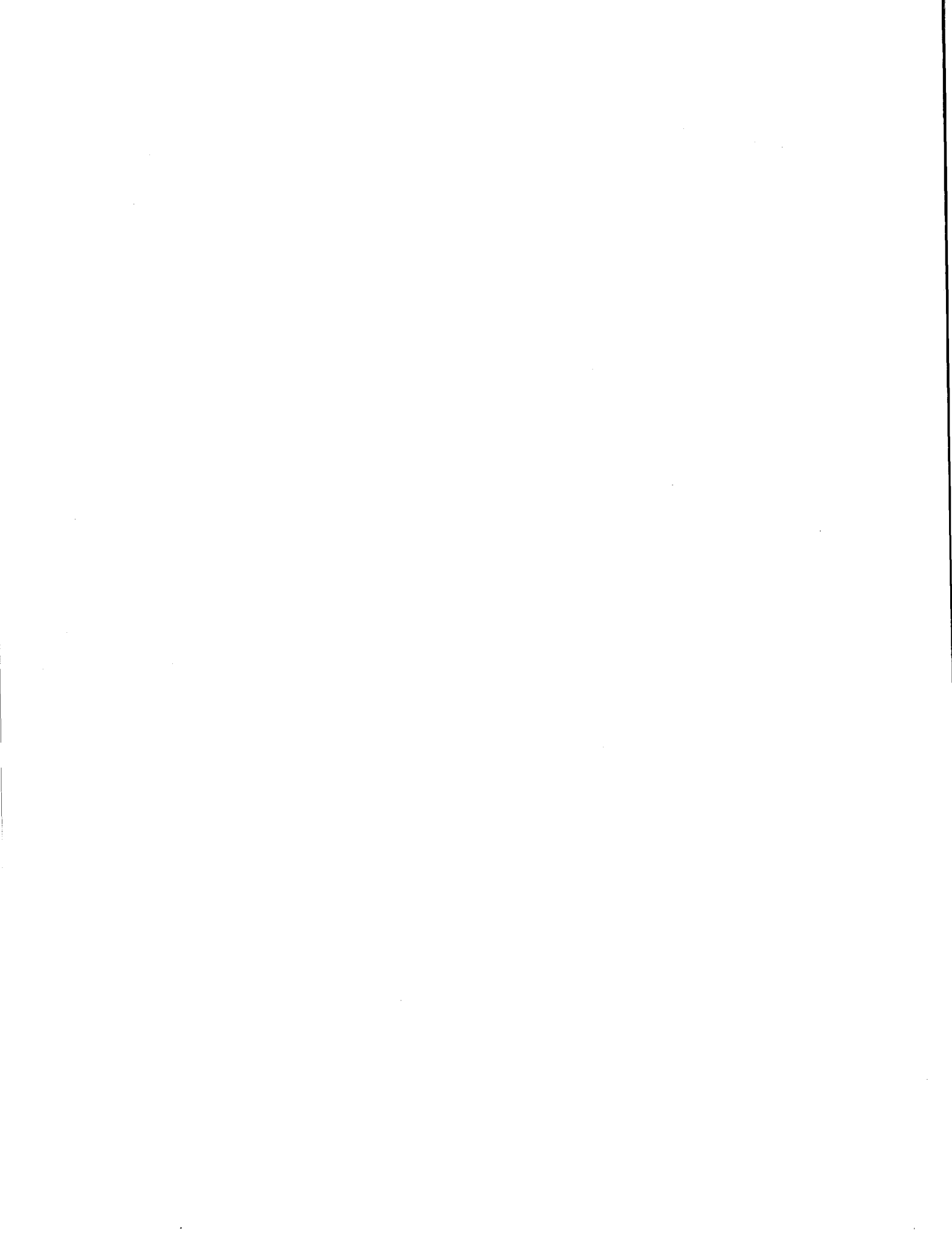
identification programs will be developed. Materials and fabrication processes will also be addressed. Prerequisites: ARCH 3343 or INTD 3343 and junior standing in the school or Department of Art.

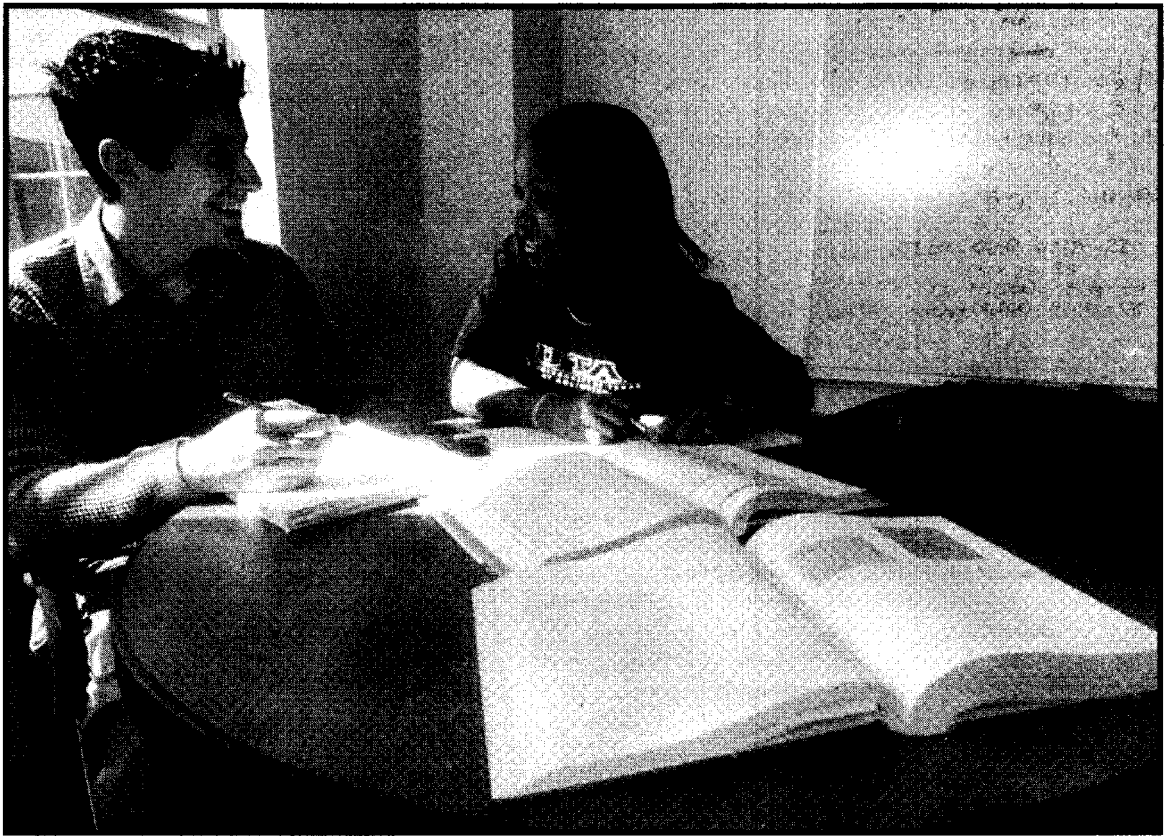
4368. INTERIOR DESIGN AND DETAILING (2-4) 3 hours credit. A studio course in design and construction detailing. Prerequisite: senior standing in INTD.

4369. FURNITURE DESIGN AND CONSTRUCTION (2-4) 3 hours credit. A studio course in the design, detailing, and construction of movable furniture. Prerequisite: INTD 4368 or permission of advisor.

4562. DESIGN STUDIO: INTERIOR DESIGN III (3-6) 5 hours credit. The analysis, planning, and design of interior spaces. Prerequisites: INTD 3343, 3345, and 3322 and credit or concurrent enrollment in ARCH 4325 and INTD 4368.

4563. DESIGN STUDIO: INTERIOR DESIGN IV (3-6) 5 hours credit. The analysis, planning, and design of interior spaces. Prerequisites: INTD 3343, 3345, and 3322 and credit or concurrent enrollment in ARCH 4325 and INTD 4368.





The College of Business Administration

The College of Business Administration

Dean: Daniel D. Himarios, Ph.D.

Suite 107 Business Bldg. • Box 19366 • 817-272-3368 • www2.uta.edu/coba

The Bachelor of Business Administration, Bachelor of Science in Economics, Bachelor of Science in Information Systems, Bachelor of Arts in Economics, Master of Business Administration, Master of Professional Accounting, Master of Science in Accounting, Master of Science in Information Systems, Master of Science in Marketing Research, Master of Science in Human Resource Management, and Master of Science in Real Estate at The University of Texas at Arlington are fully accredited by AACSB - The International Association for Management Education.

Philosophy

Teaching, research, and community service are the essential activities of the College of Business Administration. 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 inhabitants 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 Administration 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, BUSA 2303, Introduction to MIS and Data Processing. Students are also required to take an oral communication course, SPCH 1301, Fundamentals of Speech, or SPCH 2305, Business and Professional Communication.

Mission Statement

Consistent with the mission of the University, the College of Business Administration 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, operations management, marketing, real estate, or economics. 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 of a modern language. A B.S. degree in account-

ing 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. The B.A. degree in economics is the traditional liberal arts degree, oriented toward careers in teaching and research, government, or business.

Business Foundations Program

The Business Foundations Program (BFP) provides a solid foundation in basic business concepts. The program, consisting of six junior level courses and constituting a minor in business administration, is designed specifically for non-business majors. Participants successfully completing all requirements of the program will be awarded a Business Foundations Program Certificate.

To be considered for admission into the program, a student must be admitted to U.T. Arlington and seeking a non-business degree. The student must have completed one college level math course and meet the university's computer literacy requirement.

To receive a BFP Certificate a student must apply and be accepted to the program through the College of Business Administration, and complete the following eighteen (18) hours at U.T. Arlington with a grade of "C" or better in each:

FACC 3300	Foundations of Accounting
FECO 3310	Foundations of Economics
FLAW 3320	Foundations of Business Law
FFIN 3330	Foundations of Business Finance
FMAN 3340	Foundations of Management
FMRK 3350	Foundations of Marketing

College of Business Administration degree program courses with a grade of "C" or better may be used to substitute for certain BFP courses, but transfer courses from other colleges or universities may not be used under any circumstances.

Students wanting to use BFP courses toward their minor must consult with their major department. Students may complete less than six BFP courses if needed for a minor, or for any other reason, but no BFP certificate will be awarded.

BFP courses may not be used for credit toward any College of Business Administration bachelor's degree.

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.

FACC 3300. FOUNDATIONS OF ACCOUNTING (3-0) 3 hours credit. An introduction to financial and managerial accounting, with an emphasis on the content, interpretation, and uses of accounting reports. Discussion of the determination and reporting of net income and financial position, and the theories underlying business financial statements; coverage of various managerial accounting topics designed to extend the student's knowledge of planning and controlling firm operations. This course is open only to non-business majors and may not be counted towards a bachelor's degree in business.

FECO 3310. FOUNDATIONS OF ECONOMICS (3-0) 3 hours credit. A non-technical overview of microeconomic and macroeconomic theory. Provides a survey of the key lessons of economics: demand, supply, pricing in markets, structure of markets, monetary policy, fiscal policy, international trade, and other key issues that arise in general discussion. Reviews the primary tools of economic thinking and covers the major themes that appear in the popular media. This course is open only to non-business majors and may not be counted towards a bachelor's degree in business.

FLAW 3320. FOUNDATIONS OF BUSINESS LAW (3-0) 3 hours credit. Survey of areas of law related to business, making and administration of law, process of dispute resolution, filing and trying cases. Visit to courts and/or guest speakers. This course is open only to non-business majors and may not be counted towards a bachelor's degree in business.

FFIN 3330. FOUNDATIONS OF BUSINESS FINANCE (3-0) 3 hours credit. Principles of effective financial management, including planning, organization and control; financial intermediaries; securities markets; evaluation of alternative assets, debt and capital structures. Prerequisites: FACC 3300 and FECO 3310. This course is open only to non-business majors and may not be counted toward a bachelor's degree in business.

FMAN 3340. FOUNDATIONS OF MANAGEMENT (3-0) 3 hours credit. An introduction to the management of organizations. Issues are addressed from the perspectives of strategic management, organizational behavior, and human resource management. This course is open only to non-business majors and may not be counted towards a bachelor's degree in business.

FMRK 3350. FOUNDATIONS OF MARKETING (3-0) 3 hours credit. Introduction to the basic concepts and terminology in marketing: the marketing mix, market segmentation, buyer behavior, marketing research, and other fundamental concepts. This course is open only to non-business majors and may not be counted towards a bachelor's degree in business.

PPIB Program

The Professional Program in Business (PPIB) is designed for students with superior academic credentials and a clear focus on their career aspirations. This program will enable students to meet requirements for both Bachelor's and Master's degrees in a specially designed five-year format. The entire five-year program can be completed with up to 12 fewer hours than would be required in completion of separate Bachelor's and Master's degrees. With this plan both degrees will be awarded simultaneously. Any combination of undergraduate degrees (BBA, BA, BS) and graduate degrees (MBA, MS, MA) is possible. The number of undergraduate hours that can be waived (substituted) may be influenced by the degree combination chosen.

Prospective students must have a 3.2 overall GPA at U.T. Arlington and a 3.2 GPA in COBA courses to be considered for participation in this program. Also, students must have completed a minimum of 24 hours of course work at UT Arlington. Students should seek advising about this option and make the decision to enter this program during their junior year. Information about the program and the process for applying is available in the Advising Center.

Business Honors Program

The Business Honors Program (BHP) operates as a part of U.T. 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 Administration degree programs.

Admission Policy

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

Direct Admission Criteria

I. Applicants entering U.T. Arlington from high school and transfer students who have completed less than 30 hours of transferable college credit will be directly admitted to a College of Business Administration (COBA) major based on the following criteria:

- Students must meet all U.T. Arlington admission requirements and
- Students must meet one of the following SAT/ACT and high school rank combinations:

Rank in High School	Minimum SAT score	Minimum ACT score
Top 10%	900	19
Next 15% of the top quarter	1000	21

II. Applicants who have completed 30 or more hours of transferable college credit will be directly admitted to a COBA major based on the following criteria:

- Students must meet all U.T. Arlington admission requirements and
- Students must have a grade point average of 3.00 or better for all college level credit earned.

Applicants Who Do Not Meet Direct Admission Criteria

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

- An overall grade point average of 2.0 at U.T. Arlington;
- A business grade point average of 2.50 at U.T. Arlington; and
- Completion of the COBA math requirement. (The COBA math requirement includes Math 1302 or Math 1315 and Math 1316, or equivalent courses as transfer credits.)

If a student does not meet the above criteria after earning twelve (12) hours in business course work, the student may be allowed to continue as a pre-business major. For the semester containing the eighteenth hour of business course work, all business hours will be used to calculate a business grade point average for the COBA

admission purposes. Students who do not meet the requirements for declaring a business major after eighteen (18) hours of business course work will not be allowed to take additional business courses at U.T. Arlington. The student will be suspended from the COBA and must choose a major other than pre-business at that time in order to remain enrolled at U.T. Arlington.

College of Business Administration Graduation Requirements

In addition to meeting the credit hour and course requirements for a specific College of Business Administration degree program, the student must meet the following requirements:

- 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 Administration;
- 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.

Liberal Arts Major/Business Administration Minor

Liberal Arts majors planning to pursue a Master of Business Administration degree are advised to select a minor (18-24 semester hours) from the following courses: ACCT 2301, 2302, BUSA 2302, 2303, 3321, OPMA 3306, MANA 3318, FINA 3313, MARK 3321, and ECON 2305, 2306. In addition, MATH 1315 and MATH 1316 are recommended to fulfill the mathematics requirement.

Completion of the above courses will allow the student, subject to normal graduate admission requirements, to reduce the foundation MBA program requirements. A student not completing all the courses identified above will be required to enroll in the appropriate MBA foundation courses.

Science Major/Business Administration Minor

Science majors planning to pursue a Master of Business Administration Degree are advised to select a minor (18-24 semester hours) from the following courses: ACCT 2301, 2302, BUSA 2302, 2303, 3321, OPMA 3306, MANA 3318, FINA 3313, MARK 3321, and ECON 2305, 2306.

Completion of the above courses will allow the student, subject to normal graduate admission requirements, to reduce the foundation MBA program requirements. A student not completing all the courses identified above will be required to enroll in the appropriate MBA foundation courses.

The Department of Accounting

409 Business Bldg. • Box 19468 • 817-272-3481 • www2.uta.edu/accounting • accounting@uta.edu
Student Advising: 107 Business Bldg. • Box 19366 • 817-272-3368 • www2.uta.edu/ugadvise • undergraduate.accounting.advisor@uta.edu

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) create and disseminate knowledge of accounting and the accounting profession and (2) provide service to the accounting profession, business community, and general community.

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 able to complete both their bachelor's and master's degrees in approximately one less semester than is required to earn separate bachelor's and master's degrees.

Accreditation

The Department of Accounting is fully accredited by the AACSB - The International Association for Management Education. 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 dean of the College of Business Administration.

Graduation Requirements

In addition to requirements imposed by the University and College of Business Administration, 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. BUSA 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

Three hours from courses approved by the University as satisfying this requirement. ECON 2305 is recommended.

Oral Communication Skills

SPCH 1301 or SPCH 2305.

Computer Literacy Skills

BUSA 2303.

Outside Electives

Sufficient to give the total number of hours required for the degree.

Business Administration

3321, 3322 (or INSY 4302), 4322.

Business Law

3311, 3312.

Marketing

3321.

Finance

3313.

Management

3318.

Economics

2305, 2306, and six 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

Six hours of advanced business, management, marketing, finance, information systems, economics, 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.

Total

128 semester hours plus 4 semester hours of exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required by the University.

Suggested Course Sequence**Freshman Year****First Semester:** ENGL 1301; HIST 1311; Natural Science, 4 hours; MATH 1302 or 1315; SPCH 1301 or 2305; EXSA or ROTC or Marching Band—Total Credit 17 hours.**Second Semester:** ENGL 1302; HIST 1312; Natural Science, 4 hours; MATH 1316; Fine Arts, 3 hours; EXSA or ROTC or Marching Band—Total Credit 17 hours.**Sophomore Year****First Semester:** Literature, 3 hours; POLS 2311; ECON 2305; ACCT 2301; BUSA 2303; EXSA or ROTC or Marching Band—Total Credit 16 hours.**Second Semester:** Liberal Arts Elective, 3 hours; POLS 2312; ECON 2306; ACCT 2302; Outside Elective, 3 hours; EXSA or ROTC or Marching Band—Total Credit 16 hours.**Junior Year****First Semester:** ACCT 3303; ACCT 3311; FINA 3313; Advanced Economics Elective, 3 hours; Social and Cultural Studies, 3 hours; Outside Elective, 3 hours—Total Credit 18 hours.**Second Semester:** ACCT 3312; ACCT 3315; MARK 3321; BUSA 3321; MANA 3318; Advanced Economics Elective, 3 hours—Total Credit 18 hours.**Senior Year****First Semester:** ACCT 4302; ACCT 4318; BLAW 3311; BUSA 3322 or INSY 4302; Accounting Elective, 3 hours—Total Credit 15 hours.**Second Semester:** Advanced Accounting Elective, 3 hours; BLAW 3312; Business Electives, 6 hours; BUSA 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. BUSA 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 courses approved by the University as satisfying this requirement.

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 Skills

SPCH 1301 or SPCH 2305.

Computer Literacy Skills

BUSA 2303.

Outside Electives

Sufficient to give the total number of hours required for the degree.

Business Administration

3321 and 4322.

Business Law

3311 and 3312.

Marketing

3321.

Finance

3313.

Management

3318.

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.

Total

122 semester hours plus 4 semester hours of exercise and sports activities (EXSA/DNCA), or ROTC, or marching band as required by the University.

Suggested Course Sequence**Freshman Year**

First Semester: ENGL 1301; HIST 1311; Natural Science, 4 hours; MATH 1302 or 1315; SPCH 1301 or 2305; EXSA or ROTC or Marching Band – Total Credit 17 hours

Second Semester: ENGL 1302; HIST 1312; Natural Science, 4 hours; MATH 1316; Fine Arts, 3 hours; EXSA or ROTC or Marching Band – Total Credit 17 hours

Sophomore Year

First Semester: Literature, 3 hours; POLS 2311; ECON 2305; ACCT 2301; BUSA 2303; EXSA or ROTC or Marching Band – Total Credit 16 hours

Second Semester: Liberal Arts Elective, 3 hours; POLS 2312; ECON 2306; ACCT 2302; Social/Cultural Studies, 3 hours; EXSA or ROTC or Marching Band – Total Credit 16 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; BUSA 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; BUSA 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 able to complete both their bachelor's and master's degrees in approximately one less semester than is required to earn separate bachelor's and master's degrees.

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. (The master's degree pursued is chosen by the student.)

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.

Department of Accounting Faculty**Chair**

Professor Hall

Professors

Courtney, Dunn, Taylor

Associate Professors

Ho, Mark, McConnell,

Pierce, Tsay, Walther

Senior Lecturer

Strickland

Lecturers

Carpenter, Elliott, Goetz, Repsis,

Schwemer, Weber, Wilson

Adjunct Assistant Professor

Lee

Business Foundations Program (FACC)**FACC 3300. FOUNDATIONS OF ACCOUNTING (3-0) 3 hours**

credit. An introduction to financial and managerial accounting, with an emphasis on the content, interpretation, and uses of accounting reports. Discussion of the determination and reporting of net income and financial position, and the theories underlying business financial statements; coverage of various managerial accounting topics designed to extend the student's knowledge of planning and controlling firm operations. This course is open only to non-business majors and may not be counted towards a bachelor's degree in business.

Accounting (ACCT)

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

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.

2301. PRINCIPLES OF ACCOUNTING I (3-0) 3 hours credit (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.

2302. PRINCIPLES OF ACCOUNTING II (3-0) 3 hours credit (ACCT 2302). A study of managerial accounting concepts and techniques. Topics include cost behavior, budgeting, responsibility accounting, and product costing. Prerequisite: ACCT 2301.

3303. INTRODUCTION TO ACCOUNTING INFORMATION SYSTEMS (3-0) 3 hours credit. The structure of contemporary accounting systems with emphasis on controls, auditing, reporting, and efficient operation. Prerequisites: ACCT 2302 and BUSA 2303.

3304. SOFTWARE TOOLS (3-0) 3 hours credit. A study of word processing, spreadsheet, database, and presentation software programs. 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 or equivalent.

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.

3311. FINANCIAL ACCOUNTING I (3-0) 3 hours credit. 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.

3312. FINANCIAL ACCOUNTING II (3-0) 3 hours credit. 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.

3315. PRINCIPLES OF FEDERAL INCOME TAX (3-0) 3 hours credit. A study of general federal income tax principles such as income, deductions, losses and property transactions. The principles of individual taxation will be covered as well as an overview of tax considerations for entities such as corporations and partnerships. Prerequisite: ACCT 3311.

4191. STUDIES IN ACCOUNTING (1-0) 1 hour credit. Advanced studies, on an individual basis, in various fields of accounting literature. May not be repeated for credit. Prerequisite: consent of the instructor.

4301. STUDY OF INCOME TAX FOR ENTITIES OTHER THAN INDIVIDUALS (3-0) 3 hours credit. 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: ACCT 3315.

4302. ACCOUNTING IN MANAGERIAL PLANNING AND CONTROL (3-0) 3 hours credit. 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. Prerequisites: 15 hours of accounting and BUSA 2303 and 3321.

4304. COST ACCOUNTING (3-0) 3 hours credit. Concepts and purposes underlying the development and reporting of cost accounting information. Job order costing, process costing, standard costs, and variance analysis. Prerequisite: ACCT 2302.

4311. ADVANCED FINANCIAL TOPICS (3-0) 3 hours credit. 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: ACCT 3312.

4318. AUDITING (3-0) 3 hours credit. Principles, concepts, and techniques which are appropriate to the acquisition, evaluation, and documentation of audit evidence. Internal control concepts, financial compliance, and operational auditing. Prerequisites: ACCT 3303 and 3312.

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.

4331. INTERNAL AUDITING I (3-0) 3 hours credit. A comprehensive study of internal auditing standards, ethics, concepts, audit techniques, and reporting practices. Prerequisite: ACCT 3303 or consent of instructor.

4395. SEMINAR IN ACCOUNTING (3-0) 3 hours credit. Readings and discussions of special topics in accounting. May be repeated for credit. Prerequisite: consent of the instructor.

Business Administration

Suite 107 Business Bldg. • Box 19366 • 817-272-3368

The Bachelor of Business Administration Degree allows the student to choose options in Economics, Finance, Information Systems, Management, Operations Management, Marketing, and Real Estate. General business administration courses are found in this section of the catalog. Courses in the various option fields are found in the appropriate departmental sections of the catalog. (Operations Management courses are found in the Information Systems and Operations Management Department.)

Requirements for a Bachelor of Business Administration Degree

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

Students must be meeting 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 Dean of Business Administration.

English

1301, 1302.

Literature

Three hours of English or 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.

Natural Science

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

Social/Cultural Studies

BUSA 2302.

Fine Arts

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

Speech

1301 or 2305.

Computer Use Competency

Students will become competent in computer use within the first 60 hours of their program in the following topics: word processing, spreadsheet, database preparation, Internet use and library online search. This must be achieved by passing BUSA 2303 or equivalent

course. The students may also take courses offered by Academic Computing Services and the U.T. Arlington Library in these areas, if needed.

Outside Electives

Sufficient to give the total number of hours required for the degree.

Core

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

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 electives. Six hours of economics electives.* 12 to 18 hours of 3000/4000 level business electives selected from at least three areas of concentration excluding the primary area of concentration.

Total

128 hours, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

* Students planning to attend Graduate School should take ECON 3310 and 3312 in their undergraduate program of study.

Suggested Course Sequence

Freshman Year

First Semester: ENGL 1301; HIST 1311; Natural Science, 4 hours; MATH 1315; Speech, 3 hours; EXSA or ROTC or Marching Band—Total Credit 17 hours.

Second Semester: ENGL 1302; HIST 1312; Natural Science, 4 hours; MATH 1316; Fine Arts, 3 hours; EXSA or ROTC or Marching Band—Total Credit 17 hours.

Sophomore Year

First Semester: Literature, 3 hours; POLS 2311; ECON 2305; ACCT 2301; BUSA 2302 and 2303; EXSA or ROTC or Marching Band—Total Credit 19 hours.

Second Semester: Liberal Arts Elective, 3 hours; POLS 2312; ECON 2306; ACCT 2302; Outside Elective, 3 hours; EXSA or ROTC or Marching Band—Total Credit 16 hours.

Economics Option

Students concentrating in economics should be certain that they are meeting 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, 3318 and 4331 are required. A three-hour accounting 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; Accounting Elective, 3 hours; Advanced Business elective, 3 hours—Total Credit 18 hours.

Second Semester: ECON 3312; FINA 3313; MANA 3318; BUSA 3321; Advanced Business Electives, 6 hours—Total Credit 18 hours.

Senior Year

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

Second Semester: BUSA 4322; ECON 4331; Outside Elective, 3 hours; Advanced Business Elective, 3 hours.—Total Credit 12 hours.

Finance Option

The student concentrating in finance should be certain that he/she is meeting 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; BUSA 3321; MANA 3318; ACCT 3311; Economics Elective, 3 hours—Total Credit 18 hours.

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

Senior Year

First Semester: BUSA 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*, 9 hours; Outside Elective, 3 hours—Total Credit 15 hours.

* Suggested advanced business electives: BLAW 3312; BUSA 3326; INSU 4329; OPMA 4307; 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 nonfinancial services.

Information Systems Option

The student concentrating in information systems should be certain he/she is meeting 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 BUSA 2303. INSY 3302, 3304, 3305, 3308, 4306, and 4308 are required.

The student concentrating in information systems is encouraged to take a computer science course as an outside elective. Other required electives (accounting—three hours; economics—six hours) and advanced business electives should be selected with the advice of an academic advisor.

Suggested Course Sequence

Junior Year

First Semester: INSY 3302; INSY 3304; Accounting Elective, 3 hours; MANA 3318; BUSA 3321; Economics Elective, 3 hours—Total Credit 18 hours.

Second Semester: INSY 3305; OPMA 3306; BLAW 3311; Economics Elective, 3 hours; FINA 3313; MARK 3321—Total Credit 18 hours.

Senior Year

First Semester: INSY 3308; INSY 4306; Advanced Business Electives, 9 hours—Total Credit 15 hours.

Second Semester: INSY 4308; Outside Elective, 3 hours; BUSA 4322; Advanced Business Elective, 3 hours—Total Credit 12 hours.

Management Option

Students concentrating in management should be certain that they are meeting 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 18 hours of management beyond MANA 3318. MANA 3319 and 3320 are required. The balance of up to 12 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; Accounting Elective, 3 hours; BLAW 3311; BUSA 3321; MARK 3321—Total Credit 18 hours.

Second Semester: MANA 3320; Management Elective, 3 hours; OPMA 3306; Economics Elective, 3 hours; FINA 3313; Advanced Business Elective, 3 hours—Total Credit 18 hours.

Senior Year

First Semester: Management Elective, 3 hours; Management or Advanced Business Electives, 6 hours; Advanced Business Electives, 3 hours; Economics Elective, 3 hours—Total Credit 15 hours.

Second Semester: BUSA 4322; Outside Elective, 3 hours; Advanced Business Elective, 6 hours—Total Credit 12 hours.

Marketing Option

Students concentrating in marketing should be certain that they are meeting 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 BUSA 3360. Other required advanced electives 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.

A student may complete the track in Hospitality and Tourism Management by taking the required courses for a concentration in marketing plus a minimum of nine hours in Hospitality and Tourism Management courses. These courses are MARK 4330, MARK 4331, MARK 4332, MARK 4333 and MARK 4334.

Suggested Course Sequence

Junior Year

First Semester: MANA 3318; Accounting Elective, 3 hours; BLAW 3311; BUSA 3321; Economics Elective, 3 hours; MARK 3321—Total Credit 18 hours.

Second Semester: Marketing Elective, 3 hours; MARK 3324; OPMA 3306; Economics Elective, 3 hours; FINA 3313; BUSA 3360—Total Credit 18 hours.

Senior Year

First Semester: MARK 4311; Marketing Electives, 6 hours; Advanced Business Electives, 6 hours—Total Credit 15 hours.

Second Semester: MARK 4322; BUSA 4322; Outside Elective, 3 hours; Advanced Business Elective, 3 hours—Total Credit 12 hours.

Operations Management Option

(previously Production/Operations Management, POMA)

Students concentrating in operations management should be certain that they are meeting 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 BUSA 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; BUSA 3321; Economics Elective, 3 hours; MANA 3319; Accounting Elective, 3 hours—Total Credit 18 hours.

Second Semester: OPMA 3308; BLAW 3311; BUSA 3322; Economics Elective, 3 hours; MARK 3321; FINA 3313—Total Credit 18 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; BUSA 4322; Outside Elective, 3 hours—Total Credit 12 hours.

Real Estate Option

The student concentrating in real estate should be certain he/she is meeting 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 18 hours of real estate beyond REAE 3325. REAE 3325, REAE 4334, and REAE 4319 are required. The remaining six to 12 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; BUSA 3321; FINA 3313; BLAW 3311; REAE 3325; Economics Elective, 3 hours—Total Credit 18 hours.

Second Semester: MARK 3321; OPMA 3306; Accounting Elective, 3 hours; REAE 4319; Economics Elective, 3 hours; BLAW 3314—Total Credit 18 hours.

Senior Year

First Semester: Real Estate, 6 hours; Real Estate or Advanced Business Electives, 6 hours; Advanced Business Elective, 3 hours—Total Credit 15 hours.

Second Semester: REAE 4334; BUSA 4322; Outside Elective, 3 hours; Advanced Business Elective, 3 hours—Total Credit 12 hours.

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 dean of the College of Business Administration.

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

BUSA 2302.

Fine Arts

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

Speech

1301 or 2305.

Natural Science

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

Business Core

ACCT 2301, 2302; BUSA 2303, 3321, and 4322; ECON 2305, 2306; FINA 3313; MANA 3318; MARK 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.

Total

130 hours, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Students are strongly encouraged to study abroad. The College of Business Administration and the Department of Modern Languages will work together in placing students in currently 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 that they are meeting 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 that they are meeting 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 that they are meeting 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 that they are meeting 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.

* 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.

Business Administration (BUSA)

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.

2302. COMMUNICATIONS IN ORGANIZATIONS (3-0) 3 hours credit. This course 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. BUSA 2302 will satisfy the cultural and social studies requirement in the College of Business Administration.

2303. INTRODUCTION TO M.I.S. AND DATA PROCESSING (3-0) 3 hours credit. 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.

2304. INTRODUCTION TO BUSINESS (3-0) 3 hours credit. 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.

3321. BUSINESS STATISTICS (3-0) 3 hours credit. Application of statistical techniques to business and economic data. Descriptive statistics, probability distributions, estimation, inference, regression, correlation, and time series. Prerequisites: BUSA 2303 and MATH 1315 or calculus.

3322. BUSINESS STATISTICS (3-0) 3 hours credit. The application of statistical inference to problems in business and economics. Sampling theory, nonparametric methods, and forecasting. Special attention to statistical research techniques. Prerequisite: BUSA 3321.

3326. CREDITS AND COLLECTIONS (3-0) 3 hours credit. The use of credit in modern business; the relation of credit information, credit bureaus, collection letters, and the economic justification for credit extension. (May be included as part of the finance concentration, except that it may not be substituted for FINA 4315, Advanced Business Financial Analysis). Prerequisite: junior standing.

3330. INTRODUCTION TO E-COMMERCE (3-0) 3 hours credit. This course 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.

3360. BUSINESS COMMUNICATION SKILLS (3-0) 3 hours credit. Develops written and verbal skills necessary for effective communication in a business environment; resume preparation, business reports, English essentials, and oral presentations are emphasized.

4191, 4291, 4391. STUDIES IN BUSINESS (Variable credit from 1 to 3 semester hours as arranged). Advanced studies, on an individual basis, in the various fields of business literature. Prerequisites: senior standing and permission of instructor. May be repeated for credit with consent of department chair.

4322. ORGANIZATIONAL POLICY AND ADMINISTRATION (3-0) 3 hours credit. An integrative learning experience through the presentation of advanced material and study of administrative policy cases. Administrative processes in conditions of uncertainty. The total organizational environment, including social, economic, ethical, political and technological influences. Analyses of the basic organizational functions to aid in development of administrative controls. A capstone offering for the business major. Prerequisite: completion of all business core courses and senior standing.

4330. RESEARCH METHODOLOGY AND PRACTICE (3-0) 3 hours credit. 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.

4331. SEMINAR IN BUSINESS (3-0) 3 hours credit. Readings and discussion of special topics in business. Prerequisite: junior or senior standing and consent of instructor. May be repeated for credit with consent of department chair.

4393. INTERNSHIP. Practical training in business and industry. Analysis of theory applied to real life situations. May be used as an advanced business elective; graded on a pass/fail basis. No credit will be given for previous experience or activities. May not be repeated for credit. Prerequisites: Junior standing and consent of internship advisor.

4394. HONORS THESIS/SENIOR PROJECT (3-0) 3 hours credit. 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.

Business Foundations Program (FLAW)

FLAW 3320. FOUNDATIONS OF BUSINESS LAW (3-0) 3 hours credit. Survey of areas of law related to business, making and administration of law, process of dispute resolution, filing and trying cases. Visit to courts and/or guest speakers. This course is open only to non-business majors and may not be counted towards a bachelor's degree in business.

Business Law (BLAW)

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.

3311. LAW I (3-0) 3 hours credit. 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).

3312. LAW II (3-0) 3 credit hours. The law of property (real and personal), business associations (agency, partnership, corporation, bankruptcy), wills and trusts. Prerequisite: junior standing.

3313. LAW—CONTEMPORARY PERSPECTIVE (3-0) 3 hours credit. Topics of legal significance to society. The influence of history on present legal remedies; evidence and procedures of litigation; the law of crimes, torts, wills, trusts, marriage, divorce, morals, and current issues. Prerequisite: junior standing.

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.

4310. BASIC INTERNATIONAL LAW FOR BUSINESS (3-0) 3 hours credit. 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: junior standing.

Insurance (INSU)

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.

4329. PROPERTY AND CASUALTY RISK MANAGEMENT (3-0) 3 hours credit. 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: junior standing or consent of instructor.

4330. LIFE AND HEALTH RISK MANAGEMENT (3-0) 3 hours credit. 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: junior standing.

The Department of Economics

309 Business Bldg. • Box 19479 • 817-272-3061 • <http://economics.uta.edu>

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 Public Sector Economics (ECON 3304), Industrial Organization and Public Policy (ECON 3313), Economic Fluctuations and Forecasting (ECON 4325), 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 Dean of the College of Business Administration.

English

1301, 1302.

Literature

Three hours of English or 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.

Political Science

2311, 2312.

History

1311, 1312.

Mathematics

MATH 1302, 1315 or 1325 and MATH 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.

Speech

SPCH 1301 or 2305.

Social Science

Six hours. BUSA 2302 may be used in partial satisfaction of this requirement.

Statistics and Computer Systems

BUSA 2303, 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, 3318, and 4331, plus 12 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 computer systems and the 12 hours in accounting and finance may be used as a minor in business administration.)

Outside Electives

Six hours outside the College of Business Administration.

Other Electives

Sufficient to give the total number of hours required for a degree.

Total

125 hours, at least 39 of which must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

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; EXSA or ROTC or Marching Band—Total Credit 17 hours.

Second Semester: ENGL 1302; MATH 1316 or 1426; Natural Science, 4 hours; Social Science, 3 hours; HIST 1312; EXSA or ROTC or Marching Band—Total Credit 17 hours.

Sophomore Year

First Semester: Literature, 3 hours; POLS 2311; Social Science Elective, 3 hours; ECON 2305; ACCT 2301; EXSA or ROTC or Marching Band—Total Credit 16 hours.

Second Semester: Liberal Arts Elective, 3 hours; POLS 2312; BUSA 2303; ECON 2306; ACCT 2302; EXSA or ROTC or Marching Band—Total Credit 16 hours.

Junior Year

First Semester: ECON 3310; ACCT elective; Economics Elective, 3 hours; Minor, 3 hours; Outside Elective, 3 hours; SPCH 1301 or 2305—Total Credit 18 hours.

Second Semester: ECON 3312; BUSA 3321; ACCT elective or FINA 3313; Minor, 6 hours—Total Credit 15 hours.

Senior Year

First Semester: ECON 3318; Economics Elective, 3 hours; Economics Elective (4000 level), 3 hours; Minor, 6 hours—Total Credit 15 hours.

Second Semester: ECON 4331; Economics Elective, 3 hours; Outside 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 dean of the College of Business Administration.

English

1301, 1302.

Literature

Three hours of English or 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.

Modern language

1441, 1442, 2313, and 2314.

Political Science

2311, 2312.

History

1311, 1312, 2301, 2302.

Mathematics

MATH 1302, 1315 or 1325 and MATH 1316 or 1426.

Statistics and Computer Science

BUSA 2303 and 3321.

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.

Speech

SPCH 1301 or SPCH 2305.

Outside Electives

Six hours outside the College of Business Administration.

Other Electives

Sufficient to give the total number of hours required for a degree.

Major

30 hours in economics, including ECON 2305, 2306, 3310, 3312, 3318 and 4331, plus 12 additional hours of 3000/4000 level economics, with a minimum of three hours of economics at the 4000 level.

Minor

18 hours, at least six of which shall be 3000/4000 level.

Total

124 hours, at least 33 of which must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Suggested Course Sequence

Freshman Year

First Semester: ENGL 1301; Modern Language 1441; MATH 1302 or 1315 or 1325; Natural Science, 4 hours; HIST 2301; EXSA or ROTC or Marching Band—Total Credit 18 hours.

Second Semester: ENGL 1302; Modern Language 1442; MATH 1316 or 1426; Natural Science, 4 hours; HIST 2302; EXSA or ROTC or Marching Band—Total Credit 18 hours.

Sophomore Year

First Semester: Literature, 3 hours; Modern Language 2313; HIST 1311; ECON 2305; Fine Arts, 3 hours; EXSA or ROTC or Marching Band—Total Credit 16 hours.

Second Semester: Liberal Arts Elective, 3 hours; Modern Language 2314; HIST 1312; ECON 2306; POLS 2311; EXSA or ROTC or Marching Band—Total Credit 16 hours.

Junior Year

First Semester: BUSA 2303; ECON 3310; POLS 2312; Minor, 3 hours; Outside Elective, 3 hours—Total Credit 15 hours.

Second Semester: ECON 3312; BUSA 3321; Minor, 3 hours; Outside Elective, 3 hours; SPCH 1301 or 2305—Total Credit 15 hours.

Senior Year

First Semester: ECON 3318; Economics 3000 or 4000, 6 hours; Minor, 6 hours—Total Credit 15 hours.

Second Semester: ECON 4331; Economics 3000, 3 hours; Economics 4000, 3 hours; Minor, 6 hours—Total Credit 15 hours.

Department of Economics Faculty

Chair

Professor D. Himarios

Professors

Amacher, Hayashi, Meiners, Mullendore

Associate Professors

Crowder, Duwaji

Assistant Professors

Depken, Sonora, R. Wilson

Lecturers

J. Himarios, Kelly, Liggett, Wehr, L. Wilson

Business Foundations Program (FECO)

FECO 3310. FOUNDATIONS OF ECONOMICS (3-0) 3 hours credit.

A non-technical overview of microeconomic and macroeconomic theory. Provides a survey of the key lessons of economics: demand, supply, pricing in markets, structure of markets, monetary policy, fiscal policy, international trade, and other key issues that arise in general discussion. Reviews the primary tools of economic thinking and covers the major themes that appear in the popular media. This course is open only to non-business majors and may not be counted towards a bachelor's degree in business.

Economics (ECON)

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

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.

2305. PRINCIPLES OF MACROECONOMICS (3-0) 3 hours credit (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.

2306. PRINCIPLES OF MICROECONOMICS (3-0) 3 hours credit (ECON 2302). The science of choice; develops demand, supply, and the market mechanism for allocating society's scarce resources; industry structure, antitrust regulation, the market for resources, social issues, the environment, international trade, and finance.

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. Will not serve to meet degree requirements for College of Business Administration majors.

3301. THE ECONOMICS OF HEALTH (3-0) 3 hours credit. Determinants of health status; impact of economic forces on the health sector; demand for and supply of health services; role of competition; new organizational entities; the changing regulatory climate. Prerequisite: ECON 2306.

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.

3303. MONEY AND BANKING (3-0) 3 hours credit. 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.

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.

3305. LAW AND ECONOMICS (3-0) 3 hours credit. 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 or consent of instructor.

3306. ECONOMICS OF SPORTS (3-0) 3 hours credit. Applies basic economic principles to the analysis of professional and amateur sports. Topics covered include fan demand, advertising, team output decisions, league/conference organization, and government and sports. The course is designed to cater to both general business and economics majors. Prerequisite: ECON 2306.

3310. MICROECONOMICS (3-0) 3 hours credit. 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. Prerequisites: ECON 2306 and junior standing or consent of instructor.

3312. MACROECONOMICS (3-0) 3 hours credit. 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. Prerequisites: ECON 2305 and junior standing or consent of instructor.

3313. INDUSTRIAL ORGANIZATION AND PUBLIC POLICY (3-0) 3 hours credit. 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, R&D, and the various regulatory controls placed on firms and industries. Prerequisite: ECON 2306.

3318. INTRODUCTION TO ECONOMETRICS (3-0) 3 hours credit. The application of economic theory and statistical techniques for the purpose of testing hypotheses and estimating and analyzing economic phenomena. Prerequisite: BUSA 3321 or MATH 3313.

3328. PRINCIPLES OF TRANSPORTATION (3-0) 3 hours credit. Impact of freight and passenger transport upon individual, business, and governmental decision-making in an evolving, competitive world economy. Prerequisite: ECON 2306 or consent of instructor.

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.

3388. EUROPEAN ECONOMIC HISTORY, 1750 TO PRESENT (3-0) 3 hours credit. 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, post-war economic integration, and the collapse of communism. Prerequisite: ECON 2305 or consent of instructor.

4191, 4291, 4391. STUDIES IN ECONOMICS (Variable credit from 1 to 3 semester hours as arranged). Advanced studies, on an individual basis, in the various fields of economic literature. Prerequisites: ECON 2306, three hours of advanced economics, senior standing, and consent of instructor.

4302. ENVIRONMENTAL ECONOMICS (3-0) 3 hours credit. 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.

4306. COMPARATIVE ECONOMIC SYSTEMS (3-0) 3 hours credit. 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 or consent of instructor.

4311. ECONOMICS FOR MANAGERS (3-0) 3 hours credit. 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. Prerequisites: ECON 2306 and junior standing or consent of instructor.

4319. ECONOMIC GROWTH AND THE MULTINATIONAL CORPORATION (3-0) 3 hours credit. 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. Prerequisites: ECON 2305, 2306.

4321. INTERNATIONAL TRADE (3-0) 3 hours credit. 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 or consent of instructor.

4322. INTERNATIONAL FINANCE (3-0) 3 hours credit. The nature and instruments of international payments. International financial institutions and arrangements. Exchange rate, balance of payment, and income determination theories. Prerequisite: ECON 2305 or consent of instructor.

4323. INTRODUCTION TO MATHEMATICAL ECONOMICS (3-0) 3 hours credit. 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. Prerequisites: MATH 1316; ECON 3310, 3312.

4324. MONETARY AND FISCAL POLICY (3-0) 3 hours credit. 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. Prerequisites: ECON 2305, 2306, and 3303 and junior standing or consent of instructor.

4325. ECONOMIC FLUCTUATIONS AND FORECASTING (3-0) 3 hours credit. 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, three hours of advanced economics, and junior standing or consent of instructor.

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.

4331. SEMINAR IN ECONOMICS (3-0) 3 hours credit. An integrative learning experience required of all economics majors during the senior year of study. The focus is on developing experience with theoretical models, data sets, and econometric techniques; the analysis of a variety of public policy and private sector issues. Prerequisites: ECON 3310, 3312, 3318, and senior status.

4333. TOPICS IN ECONOMICS (3-0) 3 hours credit. Offers advanced students the opportunity for advanced study in a particular topic or sequence of topics that are not offered on a regular basis. Prerequisites: ECON 2305 and 2306.

The Department of Finance and Real Estate

107 Business Bldg. • Box 19449 • 817-272-3705 • www2.uta.edu/finance

Requirements for a Bachelor of Business Administration Degree

(Finance and Real Estate Options)

See Business Administration section of the catalog for specific degree requirements.

Department of Finance and Real Estate Faculty

Chair

Professor Apilado

Professors

Diltz, Panton, Swanson

Associate Professors

Buttimer, Cantwell

Assistant Professors

Dehring, Hansz, Hyland, Sarkar

Senior Lecturers

Dowdy, Sparvero

Lecturer

Boykin

Business Foundations Program (FFIN)

FFIN 3330. FOUNDATIONS OF BUSINESS FINANCE (3-0) 3 hours credit. Principles of effective financial management, including planning, organization and control; financial intermediaries; securities markets; evaluation of alternative assets, debt and capital structures. Prerequisites: FACC 3300 and FECO 3310. This course is open only to non-business majors and may not be counted toward a bachelor's degree in business.

Finance (FINA)

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.

2310. PERSONAL FINANCE (3-0) 3 hours credit. A diverse and practical range of topics which the average individual will be concerned with in making financial decisions during a lifetime. Personal budgeting, banking relationships, life and casualty insurance, taxes, investments, and estate planning. Will not be accepted for credit toward any College of Business Administration degree program.

3313. BUSINESS FINANCE (3-0) 3 hours credit. 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. Prerequisites: ECON 2306, ACCT 2302, MATH 1316 (or permission of instructor), and junior standing.

3315. INVESTMENTS (3-0) 3 hours credit. 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. Prerequisites: ECON 2306, ACCT 2302, and junior standing.

3317. FINANCIAL INSTITUTIONS AND MARKETS (3-0) 3 hours credit. 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. Prerequisites: ECON 2306, ACCT 2302, and junior standing.

4311. MONEY AND CAPITAL MARKETS (3-0) 3 hours credit. 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.

4315. ADVANCED BUSINESS FINANCIAL ANALYSIS (3-0) 3 hours credit. 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.

4318. PORTFOLIO MANAGEMENT AND SECURITY ANALYSIS (3-0) 3 hours credit. 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.

4319. FINANCIAL DERIVATIVES (3-0) 3 hours credit. 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.

4320. CAPITAL BUDGETING (3-0) 3 hours credit. 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.

4324. INTERNATIONAL CORPORATE FINANCE (3-0) 3 hours credit. 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.

4327. TOPICS IN FINANCE (3-0) 3 hours credit. Offers advanced students the opportunity for advanced study in a particular topic, or sequence of topics, which are not offered on a regular basis. Prerequisites: FINA 3313 and permission of instructor.

4330. FINANCIAL MANAGEMENT OF FINANCIAL INSTITUTIONS (3-0) 3 hours credit. Integrates the sources and uses and flow of funds in the money and capital markets with the influence of other market factors into a study of the asset, liability, and capital management of financial institutions, with emphasis on current problems and issues. Prerequisite: FINA 3317.

Real Estate (REAE)

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.

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. Formerly BUSA 3325; credit will be granted only once. Prerequisites: MATH 1316 (or permission of instructor), and junior standing.

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. Formerly REAE 4311; credit will be granted only once. Prerequisite: junior standing.

4319. REAL ESTATE FINANCE (3-0) 3 hours credit. 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).

4321. REAL ESTATE INVESTMENT (3-0) 3 hours credit. 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).

4334. REAL ESTATE APPRAISAL (3-0) 3 hours credit. 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).

4392. REAL ESTATE SPECIAL TOPICS (3-0) 3 hours credit. Offers advanced students the opportunity for advanced study in a particular topic, or sequence of topics, which are not offered on a regular basis. Prerequisites: REAE 3325 or FINA 3313 and permission of instructor.

A student desiring a real estate option must complete 12 semester hours of courses bearing the REAE prefix beyond REAE 3325. See the real estate option listed in the business administration section of the catalog.

Recommended College of Business Administration electives include but are not limited to:

- ACCT 3315—Study of Federal Income Tax Relative to Individuals (3-0) 3 hours credit
- ACCT 4301—Income Tax for Entities other than Individuals (3-0) 3 hours credit
- FINA 3317—Financial Institutions and Markets (3-0) 3 hours credit
- FINA 3315—Investments (3-0) 3 hours credit
- FINA 4320—Capital Budgeting (3-0) 3 hours credit
- MARK 4311—Marketing Research (3-0) 3 hours credit
- ECON 4325—Economic Fluctuations and Forecasting (3-0) 3 hours credit
- INSU 4329—Property and Casualty Risk Management (3-0) 3 hours credit
- INSU 4330—Life and Health Risk Management (3-0) 3 hours credit

The Department of Information Systems and Operations Management

535 Business Bldg. • Box 19437 • 817-272-3502 • www2.uta.edu/infosys

Requirements for a Bachelor of Business Administration Degree

(Information Systems and Operations Management Options)

See Business Administration 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 dean of the College of Business Administration.

English

1301, 1302.

Literature

Three hours of English or 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.

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 Science

BUSA 2302.

Speech

1301 or 2305.

Outside Electives

Sufficient to give the total number of hours required for the degree. Recommended outside electives include: CSE 1310, 1320, and 1325.

Core

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

Major Field

INSY 3302, 3305, 3308, 4302, 4304, 4306, 4308 or 4309, 4325 and three hours of approved 3000/4000-level courses from business and/or computer science engineering. Approved advanced electives include CSE 3302, 3310, 4308; ACCT 3303, 4302; OPMA 3308, 3310, 4302, 4307, 4309; INSY 3307, 4310, 4315, 4308, 4309; BUSA 3330, 4393.

Electives

Nine hours of approved advanced business electives.

Total

125 hours plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Suggested Course Sequence

Freshman Year

First Semester: ENGL 1301; HIST 1311; Natural Science, 4 hours with laboratory; MATH 1315; Speech, 3 hours; EXSA or ROTC or Marching Band—Total Credit 17 hours.

Second Semester: ENGL 1302; HIST 1312; Natural Science, 4 hours with laboratory; MATH 1316; Fine Arts, 3 hours; EXSA or ROTC—Total Credit 17 hours.

Sophomore Year

First Semester: POLS 2311; ECON 2305; ACCT 2301; BUSA 2303; BUSA 2302; EXSA or ROTC or Marching Band—Total Credit 16 hours.

Second Semester: Literature, 3 hours; POLS 2312; ECON 2306; ACCT 2302; Outside Elective, 3 hours; EXSA or ROTC—Total Credit 16 hours.

Junior Year

First Semester: INSY 3302; INSY 4304; OPMA 3306; MANA 3318; BUSA 3321—Total Credit 15 hours.

Second Semester: INSY 3305; INSY 3308; INSY 4302; BLAW 3311; MARK 3321—Total Credit 15 hours.

Senior Year

First Semester: INSY 4306; FINA 3313; Major Field Elective, 3 hours; Advanced Business Electives, 9 hours—Total Credit 18 hours.

Second Semester: INSY 4325; INSY 4308 or INSY 4309; Outside Elective, 3 hours; BUSA 4322; Liberal Arts Elective, 3 hours—Total Credit 15 hours.

Department of Information Systems and Operations Management Faculty

Chair

Professor Baker

Professors

Mykytyn, Raja, Sircar, Whiteside

Associate Professors

Eakin, Frazier, Huq, Sethi, Slinkman

Assistant Professors

Duffy, Mahapatra, Shaw

Senior Lecturers

Dash, Davamani, Davis, Esimai, Grznar, Hensel, Sarratt

Information Systems (INSY)

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.

Important note regarding current course requirements: Current course descriptions and prerequisites can be found at www2.uta.edu/infosys/programs.htm. However, because of the dynamic and changing nature of information systems courses, students should check this site or consult an advisor each semester to determine the latest course prerequisites for all information systems courses.

3302. INTERMEDIATE BUSINESS COMPUTER PROGRAMMING (3-0) 3 hours credit. Topics include structured program design and processing, language fundamentals and applications involving business problems. Techniques include sequential and random access file processing, sorting, and array processing. Prerequisite: See important note regarding current course requirements.

3305. INFORMATION SYSTEMS ANALYSIS AND DESIGN (3-0) 3 hours credit. 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: See important note regarding current course requirements.

3307. INTRODUCTION TO WEB PROGRAMMING (3-0) 3 hours credit. Concepts and principles of programming Web pages and delivery of content on the Web. Includes programming in HTML, JavaScript, VBScript and other tools used for developing and deploying Web pages. Hands-on programming projects and exercises will be used to emphasize various techniques and tools used in Web programming. Prerequisite: See important note regarding current course requirements.

3308. ADVANCED BUSINESS COMPUTER PROGRAMMING (3-0) 3 hours credit. Topics include the visual programming environment, event-driven programming, file processing, database processing, error handling, objects and class libraries. Prerequisite: See important note regarding current course requirements.

4302. DATABASE MANAGEMENT SYSTEMS (3-0) 3 hours credit. 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 data bases, evaluation and selection of DBMS, and data administration. Prerequisites: See important note regarding current course requirements.

4304. COMPUTER NETWORKS AND DISTRIBUTED COMPUTING (3-0) 3 hours credit. 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. Prerequisite: See important note regarding current course requirements.

4306. ADVANCED SYSTEMS DESIGN (3-0) 3 hours credit. Advanced topics in information systems design and implementation, including graphical user interface (GUI) design, event-driven system design, common user access (CUA), use of visual development environments, CASE tools, object-oriented analysis and design, rapid application development, and prototyping. Prerequisites: See important note regarding current course requirements.

4308. APPLIED SOFTWARE DEVELOPMENT (3-0) 3 hours credit. Integration of knowledge and abilities gained in prior computer-related courses by the development of a comprehensive system project. Prerequisites: See important note regarding current course requirements.

4309. ADVANCED APPLICATION DEVELOPMENT (3-0) 3 hours credit. Consideration of application development methodologies for client/server applications and distributed systems. Discussions of concepts such as business process engineering, process modeling, architectural design, common communication access (CCA), interprocess communication (IPC), remote procedure calls (RPC), and open data base connectivity (ODBC). Prerequisites: See important note regarding current course requirements.

4310. OBJECT ORIENTED BUSINESS PROGRAMMING (3-0) 3 hours credit. Introduction to object oriented programming for business applications. Topics include fundamental programming structures, objects and classes, inheritance, graphics programming, user interfaces, intranet and Internet applets, data structures and files, and multithreading (ODBC). Prerequisite: See important note regarding current course requirements.

4315. ADVANCED WEB DEVELOPMENT (3-0) 3 hours credit. Concepts and techniques for advanced Web application development. The course will emphasize the use of commercial Web development tools and techniques to develop commercial quality Web applications. Topics include Web site design, layout and deployment, 2-tier and 3-tier application development, back-end servers and database connectivity, dynamic page generation, query processing and response, and advanced user interaction. Prerequisite: See important note regarding current course requirements.

4325. INFORMATION RESOURCE MANAGEMENT (3-0) 3 hours credit. 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. Prerequisites: See important note regarding current course requirements.

Operations Management (OPMA)

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.

3306. OPERATIONS MANAGEMENT (3-0) 3 hours credit. Introduction to concepts and problem-solving techniques important in production management and operations management. Topics include demand forecasting, capacity management, resource allocation, inventory management, supply chain management, quality control, project management. Prerequisite: MATH 1315 or equivalent:

3308. OPERATIONS PLANNING AND CONTROL (3-0) 3 hours credit. 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.

3310. PROJECT MANAGEMENT (3-0) 3 hours credit. 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. Prerequisite: OPMA 3306.

4301. COMPUTER MODELS IN OPERATIONS MANAGEMENT (3-0) 3 hours credit. Course covers applications of common software packages used in operations management. Prerequisite: OPMA 3306.

4302. LOGISTICS MANAGEMENT (3-0) 3 hours credit. 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. .

4307. QUALITY PLANNING AND ANALYSIS (3-0) 3 hours credit. Quality of products and services needed by society, to include considerations 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 3321.

4309. SUPPLY CHAIN MANAGEMENT (3-0) 3 hours credit. 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. The strategic use of information systems to better manage supply chains is also covered. Prerequisite: OPMA 3306.

The Department of Management

209 Business Bldg. • Box 19467 • 817-272-3166 • <http://management.uta.edu>

Requirements for a Bachelor of Business Administration Degree (Management Option)

See Business Administration section of the catalog for specific degree requirements.

Human Resources Management/ Organizational Behavior

Core Track Courses

MANA 3319. Management Process Theory
MANA 3320. Human Resource Management
MANA 4320. Management of Industrial Relations
MANA 4326. Diversity in Organizations
MANA 4328. Human Resources Staffing and Performance Management
MANA 4330. Team Management

Recommended Advanced Management and Business Electives**

MANA 4321. Management of the Multinational Corporation
MANA 4323. Organization Analysis and Design: Culture, Process, and Structure
MANA 4327. Current Issues in Management
BUSA 4393. Internship
ECON 4330. Labor Economics
ECON 4335. Labor Relations and the Law
MANA 4340. Business and Society

International Management Track of International Business/Modern Language Option***

Core Track Courses

MANA 4321. Management of the Multinational Corporation
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**

MANA 3320. Human Resource Management
MANA 4325. Leadership in Organizations
MANA 4330. Team Management
MANA 4323. Organizational Analysis and Design: Culture, Process, and Structure
MANA 4340. Business and Society
BUSA 4393. Internship
MANA 3319. Management Process Theory

Entrepreneurship/Small Business

Core Track Courses

MANA 3319. Management Process Theory
MANA 3320. Human Resource Management
MANA 3325. Entrepreneurship and Venture Management
MANA 4338. Small Business Analysis
MANA 4339. Directed Studies in Entrepreneurship

Recommended Advanced Management and Business Electives**

MANA 4327. Current Issues in Management
MANA 4325. Leadership in Organizations
MARK 4303. Principles of Retailing
MARK 4304. Service Marketing Management
BUSA 4393. Internship
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 4323. Organizational Analysis and Design: Culture, Process, and Structure
MANA 3325. Entrepreneurship and Venture Management

Recommended Advanced Management and Business Electives**

MANA 4321. Management of the Multinational Corporation
MANA 4338. Small Business Analysis
BUSA 4393. Internship
MANA 4327. Current Issues in Management
MANA 4340. Business and Society

* Management Track Options are suggestive; other course sets may be chosen for use by Management students.

** Students are limited to 12 hours of management beyond MANA 3318, MANA 3319, MANA 3320.

*** See requirements for International Business/Modern Language Option.

Department of Management Faculty

Chair

Professor Priem

Professors

Harrison, Price, Quick, Rasheed, Wofford

Associate Professors

Gray, McGee, McMahan, Wheeler

Assistant Professors

Bell, McLaughlin, Shook

Senior Lecturers

Lummus

Business Foundations Program (FMAN)

FMAN 3340. FOUNDATIONS OF MANAGEMENT (3-0) 3 hours credit. An introduction to the management of organizations. Issues are addressed from the perspectives of strategic management, organizational behavior, and human resource management. This course is open only to non-business majors and may not be counted towards a bachelor's degree in business.

Management (MANA)

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.

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.

3319. MANAGEMENT PROCESS THEORY (3-0) 3 hours credit. 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.

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.

3325. ENTREPRENEURSHIP AND VENTURE MANAGEMENT (3-0) 3 hours credit. 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. Prerequisites: junior standing; permission of instructor.

4320. MANAGEMENT OF INDUSTRIAL RELATIONS (3-0) 3 hours credit. 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.

4321. MANAGEMENT OF THE MULTINATIONAL CORPORATION (3-0) 3 hours credit. The unique factors influencing the management of multinational enterprises. The principles of international management, the organization and administration of multinational enterprises, and examination of cultural, economic, social and political variables which influence the operation of the multinational firm.

4323. ORGANIZATION ANALYSIS AND DESIGN: CULTURE, PROCESS, AND STRUCTURE (3-0) 3 hours credit. Frameworks for understanding the structure and processes of complex organizations. Several analytical and design perspectives are developed to reflect the impact of environment, technology, size, and strategy on organization goals, structure, and control. Includes issues in organizational effectiveness, culture, and life cycles.

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.

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.

4327. CURRENT ISSUES IN MANAGEMENT (3-0) 3 hours credit. Seminar to consider major topics chosen for their relevance, recency, and their complexity.

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.

4330. TEAM MANAGEMENT (3-0) 3 hours credit. 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.

4338. SMALL BUSINESS ANALYSIS (3-0) 3 hours credit. Analysis of small business operations. Students will work with a number of small businesses. The integration of knowledge and application of theories across functional areas are stressed. Prerequisites: senior standing and consent of the instructor.

4339. DIRECTED STUDIES IN ENTREPRENEURSHIP (3-0) 3 hours credit. 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.

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.

The Department of Marketing

234 Business Bldg. • Box 19469 • 817-272-2876 • www.uta.edu/coba/market/ugrad/market.html

Requirements for a Bachelor of Business Administration Degree

(Marketing Option)

See Business Administration Section of the catalog for specific degree requirements.

Department of Marketing Faculty

Chair

Professor McDaniel

Professors

Dickinson, Munch

Associate Professors

Baker, Jarboe

Assistant Professors

Kleiser, Mosley-Matchett, Peterson, Wagner

Senior Lecturer

Dailey

Lecturers

Bassler, Culbert, Hooks

Business Foundations Program (FMRK)

FMRK 3350. FOUNDATIONS OF MARKETING (3-0) 3 hours credit. Introduction to the basic concepts and terminology in marketing: the marketing mix, market segmentation, buyer behavior, marketing research, and other fundamental concepts. This course is open only to non-business majors and may not be counted towards a bachelor's degree in business.

Marketing (MARK)

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.

3321. PRINCIPLES OF MARKETING (3-0) 3 hours credit. 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. Prerequisites: junior standing and ECON 2306 or consent of instructor.

3322. PERSONAL SELLING AND SALES MANAGEMENT (3-0) 3 hours credit. 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 or consent of instructor.

3323. INTEGRATED MARKETING COMMUNICATION (3-0) 3 hours credit. 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.

3324. BUYER BEHAVIOR (3-0) 3 hours credit. 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.

3325. INTERNET MARKETING (3-0) 3 hours credit. 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.

4303. RETAIL AND SERVICE MARKETING (3-0) 3 hours credit. 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.

4311. MARKETING RESEARCH (3-0) 3 hours credit. 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. Prerequisites: MARK 3321 and BUSA 3321.

4322. MARKETING PLANNING (3-0) 3 hours credit. An integrative course in marketing planning and strategy. The course is applications-oriented, focusing on developing a marketing plan. Products (goods and services), distribution, price and promotion decisions are examined. Students are expected to bring the theory and concepts they have learned in the areas of marketing, management, economics, and finance to bear on the marketing planning process. Prerequisites: MARK 3321, 3324, 4311, and senior standing.

4325. INTERNATIONAL MARKETING (3-0) 3 hours credit. 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.

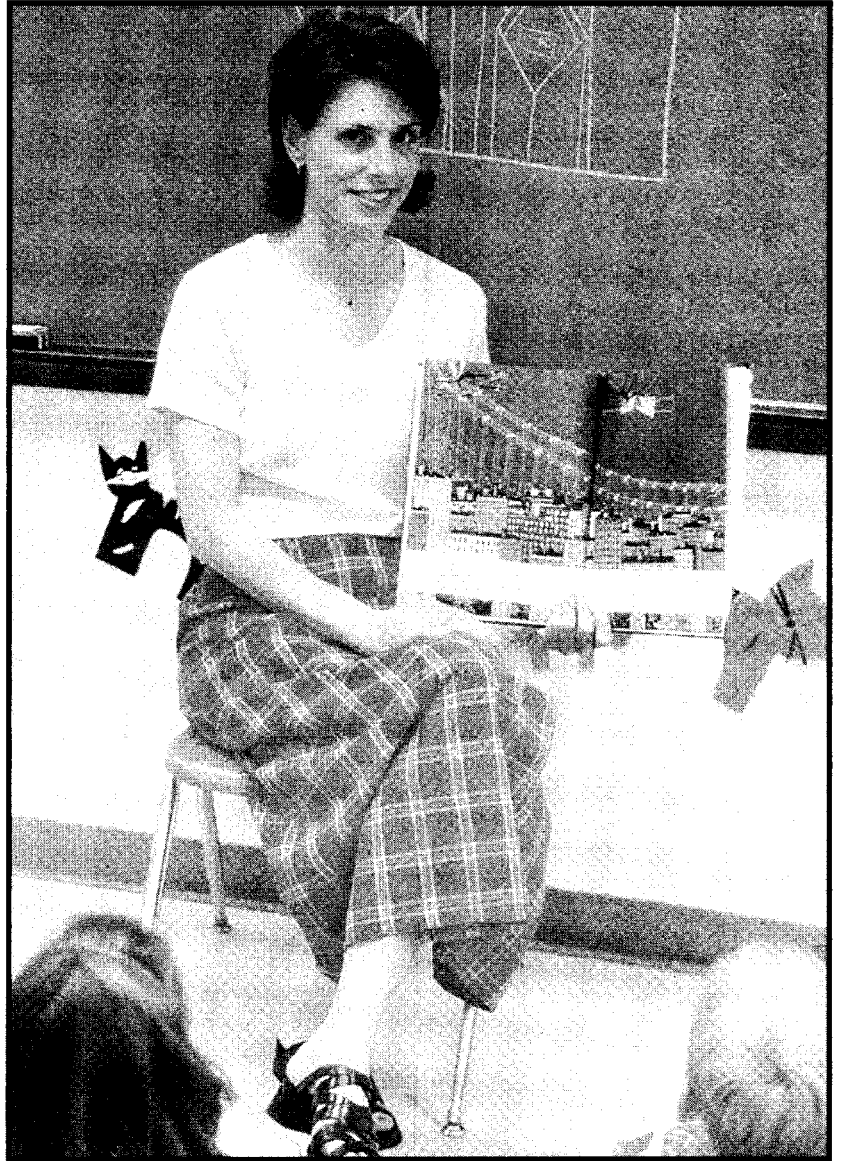
4330. TOURISM MANAGEMENT (3-0) 3 hours credit. Introduction to the basic concepts, tools and techniques of tourism management. Examines the primary trends, practices and issues of tourism management for travel companies, attractions, hotels and restaurants.

4331. DESTINATION MARKETING PLANNING (3-0) 3 hours credit. Examines the economic, social, and environmental impacts of tourism development and accompanying public policy implications. Special emphasis given to planning issues facing facilitating agencies, such as chambers of commerce, and tourism convention bureaus.

4332. ARTS AND ENTERTAINMENT MARKETING (3-0) 3 hours credit. Examines the forces of the business environment shaping the market for live-entertainment events. Course will focus on planning for both classical and popular performing arts, as well as for sports.

4333. INTERNATIONAL TOURISM (3-0) 3 hours credit. Examines trends, management practices, and development issues of international tourism. Patterns of international travel, influence of culture, and other aspects of the global business environment for tourism services will be the focus of the course.

4334. HOTEL MANAGEMENT (3-0) 3 hours credit. Examines the management issues faced by major hotels. Issues include those related to managing human resources, marketing of services, measuring service quality, operating banquet events, coordinating MIS assets, as well as providing security and accessibility for hotel guests.



The School of Education

The School of Education

Dean: Jeanne Gerlach, Ed.D., Ph.D.

5th Floor, Hammond Hall • Box 19227 • 817-272-2591 • www.uta.edu/soe

The School of Education at The University of Texas at Arlington offers certification, and/or degree opportunities for persons interested in becoming elementary, middle-level, all-level, or secondary teachers and administrators. The State Board for Educator Certification (SBEC) defines the certification levels as follows: Elementary: Early Childhood-4th grade; Middle-level: 4th-8th grade; Secondary: 8th-12th grade. As part of a redesigned certification program, U.T. Arlington emphasizes experiential learning models through field-based applications. Students spend a majority of time in public school classroom settings applying acquired content knowledge to learning situations with (1) public school students, (2) master public school teachers who serve as mentors, (3) principals and other school administrators who are instructional leaders, and (4) experienced university professors and instructors who provide the bridges from theory to application in today's diverse classrooms. In some cases, students may have additional experiences in private school settings.

Certification programs are designed to develop skilled and professionally competent teachers who have the ability to think critically and creatively. To acquire certification, teacher candidates must demonstrate mastery of the state-adopted Learner-Centered Proficiencies that relate to the following essentials for effective teaching:

- A knowledge base (experience in the teaching field)
- Instructional ability (ability to teach in ways that cause children to learn)
- Communication (skills in relating to others)
- Diversity (ability and desire to work with *all* children)
- Professional growth (ongoing growth and development as an educator)

Candidates for certification must actively demonstrate proficiency in the above essentials through assessment strategies such as individual portfolios, reflective journals and other performance-based assessments.

Non-degree candidates seeking teacher certification must choose an appropriate academic major and earn a baccalaureate degree in addition to completing certification requirements. The School of Education offers the following degree options:

Bachelor's of Arts degree in Child Studies leading to certification for Early Childhood – 4th grade Generalist or Early Childhood – 4th grade Bilingual Generalist. This degree is for community college transfer students who transfer under specific articulation agreements.

Bachelor's of Arts or a Bachelor's of Science degree in Interdisciplinary Studies with the following certification options: Early Childhood – 4th grade Generalist, Early Childhood – 4th grade Bilingual Generalist, Middle-level Generalist, Middle-level Math/Science Specialist, or Middle-level Language Arts/Social Studies Specialist.

Students interested in teaching certification for secondary level must select a major in an academic content area that is taught in the secondary schools. The following areas are available for secondary certification: history, government, composite social studies, mathematics, biology, chemistry, physics, composite science, English, journalism, speech, communication, theatre arts, Spanish, German, French, computer information systems, and physical education (as

an option in athletic training degrees). All-level certification programs are available in music, art and physical education. A list of content area academic advisors is available on the School of Education Web site.

The U.T. Arlington School of Education also offers a variety of graduate level master's degree programs in education leading to the Master of Education in Teaching (M.Ed.T.), the Master of Education (M.Ed.) in Curriculum and Instruction, the Master of Education (M. Ed.) in Educational Administration. Professional certification programs are also available in the following areas: Early Childhood – 4th grade, Middle-level, Secondary, Master Reading Teacher, Reading Specialist, English as a Second Language (ESL), Bilingual, Temporary Assistant Principal, Temporary Principal, Principalship and Superintendent. Candidates must meet all state and degree requirements for certification.

Candidates successfully completing all certification program requirements are recommended for certification in Texas to the State Board for Educator Certification (SBEC) by the School of Education.

Due to the ongoing program revisions necessary to meet new certification standards, specific degree programs are not listed in this two-year catalog. Please consult the School of Education Web site for current information on degree plans.

Admission, Enrollment and Program Continuation

Eligibility for Admission and Enrollment

Students seeking admission to the School of Education must meet specific criteria set by the School of Education and complete or satisfy the following requirements for unconditional admission:

- Satisfying the University's credit hour requirements for admission to a degree plan as outlined on page 40 of this catalog.
- Petition for admission.
- Transcripts from each college or university the student has attended (reflecting all current/completed semesters).
- Meet School of Education requirements on the TASP: Reading-270; Writing-220; Math-230.
- Have a GPA of at least 2.75 (overall or for the last 60 hours, whichever is higher).
- Any other assessment requirements deemed necessary by the School of Education.

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 SPCH 3315 or an approved substitute will be required.

- Demonstrate progress through committee assessment of their teaching field(s) or specialization(s), and by maintaining a 2.75 GPA in all School of Education courses (with the exception of Kinesiology).

Continuation Committee: Should questions be raised by U.T. Arlington faculty or professional practitioners regarding a student's program continuation, the student will be notified and invited to respond to the Continuation Committee within the School of Education. Candidates for certification who are required to withdraw from internship or residency must be reviewed by the Continuation Committee prior to consideration for an additional internship or residency assignment or to be eligible for a deficiency plan or a post-baccalaureate internship.

Certification

Transfer Students

Certification programs for transfer students will be designed on an individual basis. To qualify for a recommendation for certification, a minimum of 15 semester credit hours in professional education must be completed at U.T. Arlington.

Degreed Students

Students with baccalaureate degrees may take courses for initial teacher certification at the undergraduate level. Degreed students may choose the post-baccalaureate program for initial teacher certification which includes some courses at the graduate level. See the School of Education Web site or an academic advisor for details.

Please note: As changes in certification programs become necessary to meet new SBEC standards, the School of Education will make every effort to prepare students to meet the standards.

Internship Practicum, Inquiry Semester and Residency Practicum

Internship Practicum (EC - 4th Grade Certification)

Early Childhood - 4th Grade Internship is a semester that involves a block of courses centering around practicum experiences in a variety of settings where young children are served. Early Childhood - 4 Internship Semester requires concurrent enrollment in ECED 4308, 4310, 4311. One READ course (READ 4373, 4374 or 4376) may be taken with the Early Childhood - 4 Internship Block. Students will: (1) meet with instructors for discussions on course topics and classroom experiences, and (2) be assigned for a day or a day and a half in an approved PreK - 4 field setting for application of theory. Students may be offered opportunities for employment as early childhood teaching assistants. Students should complete all core and support system courses prior to the Intern semester. All students must meet all requirements (GPA, TASP scores and prerequisite courses) prior to Internship. The Intern semester is in the fall, begins and ends with the school district calendar and must immediately precede Residency.

Early Childhood - 4th Grade Residency (ECED 4687) is a full-time supervised and directed practice in approved prekindergarten - 4th grade classrooms. Students will have at least two placements: one in PreK or kindergarten and one in the primary grades. Residents

who are employed as intern/resident early childhood teaching assistants in the fall will retain their positions for Residency. Residency is blocked with ECED 4314, 4319 and Resident Seminars, and those courses **must** be taken during the Resident semester. It is expected that only the blocked courses will be taken during the Resident semester. Residency must follow the Internship semester.

Inquiry Semester (Middle-level Certification)

The **Inquiry Semester** is a one-semester experience for students seeking middle-level certification. It follows the university calendar. The Inquiry Semester should immediately precede the Residency semester.

Eligible students must **make application** for the Inquiry Semester before the deadline early in the preceding semester. Middle-level applications are then sent to participating partner schools and students subsequently assigned to appropriate school sites by the Field Experience Office.

For purposes of determining eligibility for the Inquiry Semester, all applicable grades, including those earned at other institutions, will be used in the calculation of grade point averages.

To be eligible to enter the Inquiry Semester for middle-level certification, the student must:

- Have filed a degree plan with the School of Education.
- Have an overall (or last 60 hours) GPA of 2.75.
- Have completed at least 75 percent of the required hours in specialization area, including six advanced hours in an academic specialization(s).
- Have a minimum GPA of 2.75 in all School of Education courses (with the exception of Kinesiology).
- Have completed EDML 4300.
- Be concurrently enrolled in EDML 4370, EDML 4371, EDML 4372, READ 4373.

Middle-level certification candidates will spend two days 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 classroom lecture at the district site.

Internship Practicum (Secondary Certification)

Internship practicum is a one-semester experience for students seeking Secondary certification. It follows the public school district calendar. The Internship semester should immediately precede the Residency semester.

Eligible students must **make application** 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 subsequently assigned by the Field Experience Office to appropriate school sites (based on student's area of specialization and the partner school's needs).

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, including internship, during the internship semester.

Students should become familiar with the Internship Handbook prior to 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 School of Education advising office.
- Have an overall (or last 60 hours) GPA of 2.75.
- Have completed at least 75 percent of the required hours in specialization/teaching field, including six advanced hours in an academic specialization(s).
- Have completed at least 9 semester hours of English course work with a minimum GPA of 2.5.
- Have a minimum GPA of 2.75 in all School of Education courses (with the exception of Kinesiology).
- Meet additional requirements as follows:

Secondary certification candidates 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. In addition, students are required to attend seminars throughout the semester.

Residency Practicum

Residency immediately follows Internship for students seeking Early Childhood - 4th grade certification or Secondary certification and the Inquiry Semester for students seeking Middle-level certification. It is a one-semester experience scheduled according to the public school district calendar that involves working with mentor teachers and EC-12 students in the school setting five days a week. Residency is considered to be full-time enrollment.

Students should become familiar with the Resident Handbook prior to 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 School of Education courses (with the exception of Kinesiology).
- Additional requirements specific to each certification level.

Recommendation to the State Board for Educator Certification

To be eligible for certification under all programs, a candidate must meet specific criteria set by the School of Education, the University, and the State Board for Educator Certification. To be recommended to the State Board for Educator Certification for initial teacher certification, a student must have successfully completed the following:

- A. All course work specified on the certification plan and required for certificate sought, including:
 - A baccalaureate degree.
 - All School of Education courses (with the exception of Kinesiology) with a grade of C or better and with a minimum GPA of 2.75.
- B. 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.

C. Examination for Certification of Educators in Texas (ExCET)
To register to take an ExCET, U.T. Arlington education students should:

- Pass ExCET Qualifying Exam as required by academic department and/or School of Education.
- Be in last year of course work (as a general rule).
- Bring the following to the School of Education to be mailed:
 1. completed U.T. Arlington School of Education ExCET registration form.
 2. completed ExCET application form.
 3. stamped pre-addressed envelope (not sealed).

Note: Students are required to obtain authorization to take the ExCET from U.T. Arlington. The School of Education reserves the right to schedule first-time examinees for the most appropriate test date. The School of Education deadline is typically two weeks prior to the deadline printed in the ExCET bulletin to allow for processing.

D. **Submission** of all necessary documentation to the School of Education which includes, but may not be limited to, the following:

- Official transcripts from all colleges and universities attended.
- Official U.T. Arlington transcript indicating completion of internship and residency and additional degree requirements.
- Passing scores on the applicable Examinations for Certification of Educators in Texas (ExCET), prescribed by the State Board for Educator Certification.
- Application for certification, including the appropriate certification fee made payable to the State Board for Educator Certification, within one year of completion of the certification plan. Students who do not submit the necessary documentation within this time frame must reapply for certification and meet any additional requirements in effect at that time.

E. Due to changing requirements for Texas teacher certification, it is possible that course work completed prior to the current application will not be counted toward certification requirements.

F. All applicants for Texas credentials will be screened for a record of felony or misdemeanor conviction through the Texas Department of Public Safety. In accordance with Texas Civil Statutes, Article 6252-13c § 4 a, "A licensing authority may suspend or revoke an existing valid license, disqualify a person from receiving a license, or deny to a person the opportunity to be examined for a license because of a person's conviction of a felony or misdemeanor if the crime directly relates to the duties and responsibilities of the licensed occupation."

Oral Communication Competency Requirement

All students will satisfy the oral communication requirement during the professional development sequence leading to initial teacher certification. These students must complete the internship semester with an acceptable evaluation of oral communication by university professors and assigned mentors in the field. The oral communication evaluation criteria are outlined in the *Internship Handbook*.

Computer Use Competency Requirement

For those students who are pursuing Middle-level or Secondary certification:

- These students will satisfy the computer use requirement during the professional development sequence leading to initial teacher certification. These students must complete a technology course. Information regarding the proficiencies covered in these technology requirements is available in the Center for Educational Technology.

For those students who are pursuing Early Childhood - 4th grade certification:

- These students should be proficient in the use of computers by the time they have completed 60 semester credit hours. If students transfer in with 60 or more hours, they should complete the competency requirement by the time they complete 12 semester credit hours. These competencies may be demonstrated by completion of university course work, credit by exam or proficiency exam.
- These students must also complete an additional technology requirement during their professional development sequence leading to initial teacher certification. These students must complete a course regarding technology applications for the PK-12 classroom. Information regarding the proficiencies covered for the technology requirement is available in the Center for Educational Technology.

School of Education Centers

Certification and Advising Center

The Certification and Advising Center helps School of Education students succeed by providing the information and support services needed to achieve their academic and career goals. The Certification Officer and the Academic Advisors are available to assist students in various stages of preparing for or furthering their careers as educators and school administrators. The center provides information and advising regarding School of Education admission requirements and degree plan options, as well as the academic content areas, field-based experiences, state examinations, and application procedures needed to obtain teacher, principal, superintendent, and special program certification in Texas. Information on nontraditional certification options and additional support in preparing for the state exams are also available. Contact: Dr. Louann Schulze, Assistant Dean for Student Affairs, (817) 272-2956.

Office of Field Experiences

Prospective teachers apply their knowledge of content and pedagogy during both a field-based internship and a residency semester arranged through the Office of Field Experiences. The internship practicum gives teacher education students the opportunity to observe and interact with diverse student populations in variety of formal and informal educational settings at locations throughout the Metroplex. During the residency practicum, these preservice teachers refine their teaching skills by working directly with students in classrooms at designated public schools in the area, guided by a co-operating mentor teacher and supervising university faculty. Contact: Dr. Maryann Felps, Director, (817) 272-2545.

Teacher Career Services

Education students are assisted in securing positions as teachers and administrators through the efforts of the Office of Teacher Career Services. The office maintains good working relationships with area school districts, working in partnership to match job openings with qualified applicants completing their professional training at U.T. Arlington. Students are assisted in writing effective résumés and developing exemplary interview skills. The office sponsors two on-campus Teacher Career Days each year and an online database of currently available positions and links to similar information elsewhere within the state and across the nation. Contact: Dr. Frank Gault, Director, (817) 272-3259.

Community College Articulation Agreements

Earning a four-year degree has been simplified for students transferring to U.T. Arlington from a number of community colleges as a result of articulation agreements. Students who enter either the Child Development or Professional Educator Program at a participating community college may complete their associates degrees while at the same time earning university credit for designated courses required for a bachelor's degree and either Early Childhood - Grade 4 or Early Childhood -Grade 4/Bilingual certification at U.T. Arlington. Contacts: Dr. Carol Sue Marshall, Early Childhood Education, (817) 272-2842, and Dr. Luis Rosado, Bilingual Education, (817) 272-7567.

UTA-North Texas Writing Project

Through its annual Summer Invitational Institute and other inservice programs, the UTA-North Texas Writing Project works to improve the teaching and learning of writing in K-16 classrooms across the Metroplex. Using a teachers-teaching-teachers model, the Writing Project provides participating inservice teachers with opportunities to come together in a supportive environment to examine the theory, practice, and challenges of teaching writing, while at the same time honing their own writing skills and developing their leadership abilities. Contact: Dr. Diana Wisell, Director, (817) 272-2515.

Center for Science Education

The School of Education and the College of Science work collaboratively through the Center for Science Education 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 also coordinates the University's outreach to school districts, community-based organizations, and local businesses in support of efforts to guide all PreK-16 students, especially those in urban settings, in achieving higher standards of learning in SMT. Contact: Dr. Karen Ostlund, Director, (817) 272-2502.

Center for Action Research

The Teacher Researcher Academy, a master's-level degree program offered through the Center for Action Research, promotes school-based teacher research aimed at understanding and impacting teaching and learning in ways that maximize student achievement and ensure success for all students. Academy participants gain practical experience with those techniques and skills needed to manage the process of improvement and change in their classrooms and schools in ways that not only inform their own practice, but also the practice of others. Contact: Dr. Judy Reinhartz, Director, (817) 272-2187.

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 through bachelor and masters-level degree programs. The center provides technical support to school districts in the areas of bilingual and ESL education, as well as preservice and inservice teacher training in the areas of the Elementary Comprehensive/Bilingual ExCET, the Texas Oral Proficiency Test, cross-cultural communication, and effective teaching practices for language-minority students. Contact: Dr. Luis Rosado, Director, (817) 272-7567.

Center for Educational Technology

The School of Education and U.T. Arlington are committed to ensuring that all learners have equitable opportunities to employ a variety of technological tools to enhance the learning process. Educational technology provides the opportunity to offer education anywhere, any time for everyone. The Center for Educational Technology addresses statewide technology initiatives for teachers and students in the State of Texas. The center supports the faculty and students in their efforts to successfully use and understand the many new technology tools and strategies. The Center for Educational Technology also assists faculty in the development and implementation of interactive technologies, which increases the effectiveness of their pedagogy. Contact: Dr. Kathy Canaday, Director, (817) 272-2853.

The Office of Development, Grants, and Contracts

The Office of Development, Grants, and Contracts is responsible for planning, managing, and directing the School of Education's efforts to attract supplemental funding from federal and state governments, corporations, foundations, groups, and individuals to support and enhance the school's strategic initiatives, academic programs, service activities, and research efforts. The office offers technical assistance to School of Education faculty in the identification, development, and submission of grant proposals and requests for financial assistance in support of individual research projects and program development initiatives. In addition, the office coordinates fundraising events for the School of Education. Contact: Dirk Mathis, Director, (817) 272-7451.

Online Master's Degree

The School of Education offers graduate students convenience and quality with a master's degree in Curriculum and Instruction available entirely over the Internet. This program option includes cutting-edge graduate courses that can also lead to three Texas professional credentials: Reading Specialist and Master Reading Teacher Certifications and English-as-a-Second Language Endorsement. A total of seven courses are already available, with five more coming online for the 2001-02 academic year. Over 400 students from as far away as New York, Georgia, and Nebraska have enrolled in Internet courses through this award-winning program. Contact: Dr. Sylvia Vardell, Coordinator, (817) 272-5058.

Transition to Teaching Program

The Transition to Teaching in Texas (T3) is a collaborative project of The University of Texas at Arlington, Sam Houston State University, and Southwest Texas State University. The T3 Program offers a

five-course sequence of graduate-level education courses for individuals with baccalaureate degrees seeking a Texas Secondary Teacher Certificate. All courses in the program are available via the Internet. Applicants for the program must meet certain U.T. Arlington Graduate School and School of Education admission standards, as well as satisfactorily completing a required field experience. Contact: Dr. Ted Chase, Coordinator, (817) 272-2955.

For specific information on degree plans, please consult the School of Education Web site or an academic advisor.

Department of Curriculum and Instruction Faculty

Chair

Associate Professor Leffingwell

Professors

Crow, Ostlund, Reinhartz

Associate Professors

Hadaway, Hirtle, Marshall, Rosado, Vardell

Assistant Professors

Alcala, Burkhalter, Canady, Felps, Kribs-Zalera, Wisell

Clinical Faculty

Carman, Ermel, Gault, Ison, Malin, Tice, Warmlesley

Education (EDUC)

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.

The following courses may be taken only with the approval of and/or admission to the School of Education (Exceptions: 1130, 1131, 1302, 2330, 3335, 2101, 4340, EDML 4300, ECED 4317 and EDTC 4201). Refer to the "Admission, Enrollment and Program Continuation" section of the School of Education portion of this catalog.

1130. FOUNDATIONS OF LEADERSHIP (1-0) 1 hour credit. This interactive course will help students identify necessary skills for effective leadership in university, personal, and professional settings, and will distinguish leadership from management. Topics include: personality traits, personal and group values identification and clarification, leadership styles, effective communication, collaboration and synergy, conflict resolution, creating action, personal and organizational renewal. Pass-Fail grades will be awarded.

1131. COLLEGE ADJUSTMENT (1-0) 1 hour credit. Student counselors, under the supervision of the Counseling, Advising, Assessment & Career Services Office, in group discussion will communicate academic survival information, analyze potential academic and social problems, and assist in implementing individualized corrective measures. Elective only; does not count as a part of the professional certification requirements. Pass-fail grades will be awarded. Prerequisite: entering freshman.

1302. COLLEGE LEARNING (3-0) 3 hours credit. 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 theory and strategies for self-change. Students complete a self-change project based on theories and models of behavior modification.

2101. EXPLORING TEACHING (1-0) 1 hour credit. An opportunity to explore teaching as a career, this course presents an overview of schooling in our region, effective teaching practices and the diversity of education. Tutoring and small group teaching in a variety of settings required.

2330. STUDENT LEADER EFFECTIVENESS TRAINING (3-0) 3 hours credit. Leadership styles and theory, problem solving, responsibility of group members, public relations, organization administration, the relationship of groups to the university community, and the student organization viewed as an extension of the educational curricula. Only pass-fail grades will be awarded. Prerequisite: organization officer or permission of instructor. Elective only and does not count as part of the professional certification requirements.

3335. STUDENT COUNSELOR TRAINING (3-0) 3 hours credit. To train students to be peer counselors who will work as group leaders in EDUC 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. Prerequisite: permission of instructor. Elective only and does not count as a part of the professional education certification requirements.

4340. HUMAN GROWTH AND DEVELOPMENT (3-0) 3 hours credit. 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.

4341. ORGANIZATION AND MANAGEMENT OF INSTRUCTION IN SECONDARY SCHOOLS (2-2) 3 hours credit. 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. Prerequisite: EDUC 4340.

4342. APPLICATIONS OF INSTRUCTION IN SECONDARY CLASSROOMS (2-2) 3 hours credit. 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. Prerequisite: EDUC 4340.

4346. SECONDARY SCHOOL CULTURE AND THE TEACHING PROFESSION (2-2) 3 hours credit. 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.

4347. SECONDARY SCHOOL INTERNSHIP WITH TECHNOLOGY APPLICATIONS (1-5) 3 hours credit. 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. Prerequisite: EDUC 4340.

4352. TEACHING DIVERSE POPULATIONS (2-2) 3 hours credit. 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. Prerequisite: EDUC 4340.

4360. TEACHING STUDENTS WITH SPECIAL NEEDS-A SURVEY (3-0) 3 hours credit. 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 TAAS and State Developed Alternative Assessment. Prerequisites: EDTC 4201, EDML 4300, or other Human Growth and Development.

4191, 4291, 4391. CONFERENCE COURSE (Variable credit from 1 to 3 semester hours as arranged). 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: consent of the instructor.

4392, 4492, 4592, 4692. PRACTICUM IN INSTRUCTION (Variable credit from 3 to 6 semester hours as arranged). Directed practicum in both primary and intermediate grades in the elementary school. The student will be assigned to a public school classroom for an extended field-based experience. This longitudinal experience will help students apply theory to practice. The student will be responsible for planning, instruction, and evaluation.

4647. SECONDARY TEACHER PREPARATION RESIDENCY WITH TECHNOLOGY APPLICATIONS (2-25) 6 hours credit. 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. Prerequisite: EDUC 4347.

Early Childhood Education (ECED)

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.

2301. EARLY CHILDHOOD PROFESSIONS (3-0) 3 hours credit. Interdisciplinary course examines variety of opportunities for working with young children and their families. This course combines the fields of early childhood education, social work, and nursing and may be co-taught by faculty from each representative department. Students will explore a variety of school, medical, day care and agency settings where young children and families are served. Field experiences required.

4209. PLAY: ENVIRONMENTS AND EDUCATION (1.5-1.5) 2 hours credit. Study of play theories as they apply to the total de-

velopment of the child. Emphasis on physical, cognitive, social and affective development and creative expression experienced in outdoor and indoor environments, including adapted environments for children with disabilities. Special focus on designing and scheduling developmentally appropriate indoor and outdoor environments and the role of play in education. Taken concurrently with ECED 4208 and 4210. Students will be assigned for a half day to an approved field setting and will spend a half day in a required seminar for the six hour block: ECED 4208, 4209 and 4210.

4304. LANGUAGE ACQUISITION AND EDUCATION (3-0) 3 hours credit. Focus on the young child's developing oral and non-verbal communication skills. Special consideration for children in the Southwest and second language acquisition. Specific focus on theories regarding the relationship between first and second language acquisition and early education. Prerequisite: ECED 4317, EDTC 4201.

4305. LANGUAGE AND LITERACY DEVELOPMENT IN YOUNG CHILDREN (2-2) 3 hours credit. Focus on the young child's developing oral and non-verbal communication skills. Examine relationship between listening, talking, reading and writing. Consider theories of early reading and writing in young children. Special attention to the relationship between literature, social and cognitive development; technological advances; and diversity in children and families. Prerequisite: ECED 4317 and EDTC 4201. Weekly field experiences in EC - 4 classrooms required.

4308. APPLICATIONS IN TECHNOLOGY FOR TEACHERS OF YOUNG CHILDREN (2-2) 3 hours credit. 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 4210. Students will be assigned for a half day to an approved field setting and will spend a half day in a required seminar for the six hour block: ECED 4308 and 4310. (replacing Elementary Education Technology requirement). Prerequisites: ECED 4317 and EDTC 4201.

4310. SPECIAL POPULATIONS AND DIVERSE SETTINGS (2-2) 3 hours credit. Provides preparation for accommodating young children with special needs in early childhood education settings. Focus on characteristics of young children with special needs, program accommodations, legal issues, individual assessment and planning, family and agency involvement, and inclusion strategies. Course will include examination of a variety of diverse settings where children live and learn, including homeless shelters. Taken concurrently with ECED 4308. Students will be assigned for a half day to an approved field setting and will spend a half day in a required seminar for the six hour block: ECED 4308 and 4310. Prerequisites: ECED 4317 and EDTC 4201.

4311. MATH AND SCIENCE FOR YOUNG CHILDREN (2-2) 3 hours credit. Principles of integration of mathematics and science 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 and science concepts. Taken concurrently with ECED 4208, 4209, 4210, READ 4373 and 4374. Field experiences required.

4314. CREATIVE ARTS AND SOCIAL STUDIES FOR YOUNG CHILDREN (2-2) 3 hours credit. Integrated relationship of social studies, expression, creativity and aesthetic appreciation will be explored in this course. Content, methods and materials will focus on

the developing self, awareness of others and group dynamics involved in the socialization process. Students will also consider appropriate strategies and environments for enhancing the creative and risk-taking characteristics of young children in classrooms. Prerequisite: Taken concurrently with ECED 4687 Residency.

4317. GROWTH, DEVELOPMENT AND LEARNING IN EARLY CHILDHOOD (3-0) 3 hours credit. Examination of major theories and principles of cognitive, social, emotional, physical and aesthetic development and learning. Emphasis on development and learning from prenatal through the eighth year. Emphasis on application of play theories as they apply to the total development of the child and cultural dynamics of families. This course is a prerequisite course and must be taken before any other ECED course.

4318. FOUNDATIONS IN EARLY CHILDHOOD EDUCATION (3-0) 3 hours credit. History of the education of young children; issues and trends in early childhood education, including changing beliefs regarding prekindergarten and kindergarten programs; state and federal mandates regarding programs for young children; and foundations for EC - 4 learning environments such as planning curriculum based on play, developing lesson plans, guidance, partnerships with families and appropriate assessment. Prerequisite: ECED 4317 and EDTC 4201.

4319. ASSESSMENT OF YOUNG LEARNERS (2-2) 3 hours credit. Principles of observation; designing and implementing assessment techniques that are individually respectful, culturally fair, reliable, dependable and appropriate for children under third grade age. Emphasis on documentation, portfolios, informal vs. formal evaluations, group tests and measurements, and differentiation between norm-referenced and criterion-referenced tests. Students will focus on research and literature regarding authentic assessment of young children. Taken concurrently with ECED 4687.

4687. RESIDENCY IN EARLY CHILDHOOD - 4 (1-25) 6 hours credit. Full-time supervised and directed practice in university approved classrooms for students prekindergarten-4th grade. Students will have at least two placements: one in prekindergarten or kindergarten and one in grade 1-4. Students earning bilingual teacher certification concurrently will be placed in a bilingual classroom. Residency must immediately follow the Internship semester. Residency assumes that students will follow school district's calendar, and report to the classroom all day and each day of the semester. It is recommended that Residency is taken together with ECED 4314 and ECED 4319.

Education Middle Level (EDML)

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.

4300. PRE-ADOLESCENT/ADOLESCENT GROWTH AND DEVELOPMENT (3-0) 3 hours credit. 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 developmental characteristics pre-adolescent and adolescents including exceptional learners and students with special needs.

4370. SOCIAL STUDIES AND DIVERSITY IN THE MIDDLE LEVEL GRADES (2-2) 3 hours credit. Examination of materials, methods, content, and assessment learning experiences associated with middle level social studies. Content areas include history; geography; econom-

ics; government; citizenship; culture; and science, technology, and society. Opportunities to demonstrate application of current researched based theory occur in an approved field site. 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, 8 a.m.-4 p.m., Monday-Friday. Prerequisites: EDML 4300, EDTC 4201 and EDUC 2101.

4371. SCIENCE IN THE MIDDLE LEVEL GRADES (2-2) 3 hours credit. 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 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, 8 a.m.-4 p.m., Monday-Friday. Prerequisites: EDML 4300, EDTC 4201, and EDUC 2101.

4372. MATHEMATICS IN THE MIDDLE LEVEL GRADES (2-2) 3 hours credit. 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 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, 8 a.m.-4 p.m., Monday-Friday. Prerequisites: EDML 4300, EDTC 4201, and EDUC 2101.

4377. MIDDLE LEVEL PREPARATION INTERNSHIP AND CLASSROOM MANAGEMENT (2-9) 3 hours credit. Supervised and directed practice emphasizing 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. Students will be assigned for a day and a half in an approved field setting and will spend a half-day in a required classroom management seminar. Prerequisites: EDML 4300, EDTC 4201, and EDUC 2101.

4677. MIDDLE LEVEL PREPARATION RESIDENCY WITH TECHNOLOGY APPLICATIONS (2-25) 6 hours credit. 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. Prerequisite: EDML 4377.

Educational Technology (EDTC)

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.

4201. TECHNOLOGY APPLICATIONS (2-0) 2 hours credit. 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.

Reading (READ)

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.

4326. TEACHING THE LANGUAGE ARTS IN SECONDARY SCHOOLS (3-0) 3 hours credit. Teaching of the processes and skills for reading/language arts. Topics include teaching the reading and writing process, children's and adolescent literature, poetry, drama, listening/speaking, and media. Course delivered over the Internet.

4343. CONTENT AREA READING AND WRITING (2-2) 3 hours credit. 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.

4345. CONTENT AREA READING AND WRITING (3-0) 3 hours credit. Explores methods of teaching reading, writing, and study skills in content area subjects. 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. Course delivered over the Internet. Students may not take both READ 4343 and READ 4345 for credit.

4354. MULTICULTURAL LITERATURE FOR CHILDREN (3-0) 3 hours credit. Study of literature for children and young adults, which reflects the culture and experiences of African-Americans, Asian-Americans, Hispanic-Americans, and Native-Americans, among others. Consideration of selection guidelines, evaluation of literary quality as well as cultural authenticity, and teaching applications, including adaptations for culturally and linguistically diverse populations. Course delivered over the Internet.

4361. LANGUAGE LEARNING: EDUCATIONAL PERSPECTIVES (3-0) 3 hours credit. Deals with relationship between language acquisition and literacy, dialect, linguistics, culture; nature and definition of language; overview of linguistic science and language with pedagogical applications. Course delivered over the Internet. Students may not take both READ 4361 and READ 4381 for credit.

4362. LITERACY INSTRUCTION IN ESL/BILINGUAL SETTINGS (3-0) 3 hours credit. The rationale for and orientation of various methods of instruction for ESL/Bilingual Education settings with emphasis on techniques for oral language development, reading and writing. A comparison/contrast of the various methods, their specifics, and when and how to use them for various instructional objectives will be provided. Course delivered over the Internet. Students may not take both READ 4362 and BEEP 4384 for credit.

4373. LITERACY LEARNING IN THE ELEMENTARY SCHOOL: READING AND WRITING (2-2) 3 hours credit. 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. 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.

4374. LITERACY LEARNING IN THE ELEMENTARY SCHOOL: LITERATURE AND LANGUAGE (2-2) 3 hours credit. Balanced literacy approach to teaching with an emphasis on literature and oral language development. Theoretical models, major genres of children's literature, strategies and techniques for classroom use of literature across the curriculum, use of appropriate media and non-print materials, selection and evaluation of literature, strategies for stimulating and expanding children's response to literature, and alternatives for developing children's listening, speaking, and phonemic and alphabetic awareness skills. 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.

4375. LITERACY LEARNING IN THE ELEMENTARY SCHOOL: LANGUAGE ARTS (2-2) 3 hours credit. Balanced literacy approach to teaching with an emphasis on language arts development. This course examines children's acquisition of the language arts including learning of word meanings, phonemic awareness, the alphabetic principle, spelling, handwriting, grammar, learning to read and write various kinds of text structures, and reading writing connections. 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.

4376. ASSESSMENT IN LITERACY LEARNING (2-2) 3 hours credit. Examines a variety of formal and informal assessment tools of reading and language arts learning. Strategies will be taught for helping children with various reading and language arts needs. Students will apply reading and writing assessment and instructional strategies with children. This course involves a two-hour lecture and two-hour application of theory/lecture. The two-hour application of theory/lecture will require students to spend time in a K-12 classroom during normal school hours.

4378. TEACHING, READING, WRITING, AND LITERATURE IN THE MIDDLE LEVEL GRADES (2-2) 3 hours credit. 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, 8 a.m.- 4 p.m., Monday-Friday.

4381. LANGUAGE ACQUISITION AND DEVELOPMENT (3-0) 3 hours credit. This course compares and contrasts first and second language acquisition as well as examining similarities and differences in child and adult second language acquisition. The course will chart oral language development as well as the development of reading and writing for children acquiring English as another language. An overview of descriptive and applied linguistics as well as issues pertaining to psycholinguistics and sociolinguistics will be provided. The impact of culture on language development, dialect variation, language retention or language loss will be examined. Students may not take both READ 4361 and READ 4381 for credit. Cross-listed with BEEP 4381.

4391, 4291, 4191. CONFERENCE COURSE. (Variable credit from 1 to 3 semester hours as arranged). 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.

Bilingual and ESL Education Program (BEEP)

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.

3381. LANGUAGE MINORITY STUDENTS: DEVELOPMENT AND ASSESSMENT (3-0) 3 hours credit. 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.

3382. INTRODUCTION TO SPECIAL LANGUAGE PROGRAMS (3-0) 3 hours credit. Legal foundations and historical development of bilingual education 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 in the implementation of special language programs will be examined.

4306. FAMILY LITERACY AND SECOND LANGUAGE ACQUISITION (2-2) 3 hours credit. Examine the relationship between family literacy with second language acquisition and literacy development in children. The course provides opportunities for students to explore a variety of adult literacy programs designed to facilitate the development of literacy skills in parents, and programs between schools and parents designed to 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 and EDTC 4201. Weekly field experiences in designated settings required.

4381. LANGUAGE ACQUISITION AND DEVELOPMENT (3-0) 3 hours credit. This course compares and contrasts first and second language acquisition as well as examining similarities and differences in child and adult second language acquisition. The course will chart oral language development as well as the development of reading and writing for children acquiring English as another language. An overview of descriptive and applied linguistics as well as issues pertaining to psycholinguistics and sociolinguistics will be provided. The impact of culture on language development, dialect variation, language retention or language loss will be examined. Cross-listed with READ 4381.

4382. LITERACY INSTRUCTION IN SPANISH FOR THE BILINGUAL CLASSROOM (2-2) 3 hours credit. The development of literacy for bilingual children will be highlighted. 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 Texas Oral Proficiency Test (TOPT). This course requires a two-hour internship in a bilingual setting. Prerequisites: BEEP 3381 and BEEP 3382. Students may not take both READ 4362 and BEEP 4384 for credit.

4383. TEACHING CONTENT AREAS IN SPANISH (2-2) 3 hours credit. Methods and materials for the teaching of the content areas in Spanish will be examined. Successful transition from native language instruction in the content areas to English language instruction will be highlighted. This course will be delivered in Spanish and students will be required to present a microlesson in Spanish. Students will be assigned to a bilingual setting during Spanish content area instruction. Prerequisites: BEEP 3381 and BEEP 3382.

4384. LITERACY METHODS FOR ESL/BILINGUAL CLASSROOMS (2-2) 3 hours credit. The rationale and orientation of various methods of instruction for English language learners will be discussed. Language development techniques for students at different stages of development will be examined. Shelter 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.

4687. RESIDENCY IN EARLY CHILDHOOD/BILINGUAL - 4 (1-25). Full time supervised and directed practice in university approved classrooms for students prekindergarten - 4th grade bilingual. Residency must immediately follow the Internship semester. Residency assumes that students will follow school district's calendar, and report to the classroom all day and each day of the semester. It is recommended that Residency is taken concurrently with ECED 4314 and ECED 4319.

Department of Educational Administration Faculty (Graduate Programs Only)

Chair

Professor Funkhouser

Associate Professor

Wilmore

Assistant Professors

McNeil, Patrick

Clinical Faculty

Johnson, Smith, Townzen

The Department of Kinesiology

112 Physical Educational Bldg. • Box 19259 • 817-272-3288 • www2.uta.edu/kine

The mission of the Department of Kinesiology is to pursue the study and practice of exercise, sport, dance, and health. The programs of instruction, research, and service are conducted within the context of fitness, sport performance, dance, aquatics, preventative and rehabilitative activities, and health promotion and education. This mission is achieved through educational and research activities related to cultural, biomechanical, physiological, psychological, and educational principles of human behavior.

The following degree and certification programs are offered in the Department of Kinesiology:

- Bachelor of Arts in Kinesiology
 - All Level Teacher Certification in Physical Education
 - Non Teacher Certification
- Bachelor of Science in Exercise Science
 - Health Fitness Track
 - Clinical Research Track
- Bachelor of Science in Athletic Training
 - Secondary Teacher Certification
 - Non Teacher Certification
- Bachelor of Arts in Athletic Training
 - Secondary Teacher Certification
 - Non Teacher Certification
- Minor in Dance

Degree and certification programs are offered for physical education teachers, health teachers and athletic trainers. In addition, there are degree programs for students interested in exercise science as preparation for fitness management, clinical exercise physiology, athletic training, allied health careers and graduate school. Other curricular options provide offerings for recreational leadership, coaching, sport-related business, dance, performance, health and promotion.

Requirements for a Bachelor of Arts Degree in Kinesiology

In addition to fulfilling University and School of Education requirements for admission, students planning to obtain a Bachelor of Arts Degree in Kinesiology must also fulfill the following.

- GPA of 2.0 for 12 hours taken at U.T. Arlington.
- Completion of ENGL 1301 and 1302 with a passing grade.
- Completion of KINE 1124, KINE 1215, and KINE 1314 with a minimum grade of C.

English

Six hours of composition.

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.

Modern Language

1441, 1442, 2313, and 2314 or equivalent.

History

1311, 1312.

Mathematics

Six hours (level of college algebra or higher).

Political Science

2311, 2312.

Natural Science

BIOL 1441, 2457, 2458.

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.

Speech

1301.

Major

(36 hours)

University Activity Requirement

KINE 2201, 2202. These four hours will be used to fulfill the University activity requirement.

Academic Core

KINE 1124, 1215, 1314, 3203, 3301, 3306, 3315, 3325, (4315 OR 4316).

Major Electives

Courses totaling 13 hours to complete the degree requirements of 36 hours will be selected in consultation with the departmental advisor. Emphasis areas are available in Health/Fitness, Sport Performance, Health, Dance, and Recreation. A minimum of 18 credits in the major must be 3000/4000-level courses.

Electives

Sufficient to give the total number of hours required for the degree.

Total

128 hours, 36 of which must be 3000/4000 level, plus KINE 2201 and 2202 to fulfill the University activity requirement.

Many of the courses in the Kinesiology curriculum require prerequisite courses which are identified in the course descriptions.

Suggested KINE Course Sequence— B.A. in Kinesiology

Freshman Year

KINE 1124, 1215, 1314.

Sophomore Year

KINE 2201, 2202, 3203.

Junior Year

KINE 3301, 3306, 3315, 3325.

Senior Year

KINE 4315 or 4316.

Requirements for a Bachelor of Science Degree in Exercise Science

Requirements for Admission into the B.S. Degree in Exercise Science include:

- Completion of the University's resident requirements with a minimum overall GPA of 2.25 (including transfer courses)
- Completion and a minimum of a 2.25 GPA (including transfer courses) in the following courses: BIOL 1441, BIOL 2457, BIOL 2458, CHEM 1301, KINE 1124, and KINE 1314.

Maintaining Major Status: Students accepted as Bachelor of Science in Exercise Science majors in the Department of Kinesiology must maintain an overall GPA of 2.0, as well as a C or better in all courses in the Kinesiology Department. If a student falls below a 2.0 overall GPA or makes a D or F in any Kinesiology or Health courses, he/she will lose status as a Kinesiology major and not be allowed to take additional Kinesiology courses at The University of Texas at Arlington. 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 deficiency must be taken at The University of Texas at Arlington. A student who has lost status as a major must have departmental permission to enroll in any junior or senior course in the Department of Kinesiology at The University of Texas at Arlington.

English

1301, 1302.

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.

History

1311, 1312.

Mathematics

1302, plus three hours of statistics.

Political Science

2311, 2312.

Psychology

2310.

Natural Science

BIOL 1441, 2457, 2458, CHEM 1284, 1301, 1302, PHYS 1441, 1442.

Science Electives

Nine hours, including three hours advanced. Science electives may include KINE 4301, 4335, 4391 or 4396.

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.

Speech

1301.

Computer Literacy

CSE 1301 or BUSA 2303.

Health Education

3301, plus selected hours from 3303, 3305, 3330, 4310, 4320, 4312, or 4340.

Major

(36 hours)

Academic Core

KINE 1124, 1215, 1314, 2330, 3301, 3306, 3315, 3325, 4300, 4315, 4387.

Bachelor of Science in Exercise Science Tracks

Health/Fitness Track

This track is designed for individuals who plan to work in the corporate or commercial fitness areas or in wellness/health promotion.

In addition to the Bachelor of Science in Exercise Science Academic Core, the following courses are required for the Health/Fitness Track: KINE 4316 and 4388 or 4389, plus 3 hours selected from KINE 3302, 4330, 4301 or 4335; HEED 3301, plus 3 hours selected from HEED 3303, 3305, 3330, 4310, 4312, 4320 or 4340.

Clinical/Research Track

This track is designed for individuals who plan to attend graduate school, pursue degrees in allied health professions, or work in the area of cardiac rehabilitation.

In addition to the Bachelor of Science in Exercise Science Academic Core, the following courses are required for the Clinical Research Track: KINE 4388, plus 3 hours selected from KINE 4301, 4316, 4335, 4391 or 4396; HEED 3301, plus 6 hours selected from HEED 3303, 3305, 3330, 4310, 4312, 4320 or 4340.

Total

128 hours, 36 of which must be 3000/4000 level, plus four hours of required exercise and sport or dance activities.

Many of the courses in the Kinesiology curriculum require prerequisite courses which are identified in the course description.

Requirements for a Bachelor of Arts Degree in Kinesiology (In Preparation for All-Level Teacher Certification)

English

Six hours of composition.

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.

Modern Language

1441, 1442, 2313, and 2314 or equivalent.

History

1311, 1312.

Mathematics

Math 1302, plus 3 hours (level of college algebra or higher).

Political Science

2311, 2312.

Natural Science

BIOL 1441, 2457, 2458.

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.

Speech

1301.

Computer Literacy

To be advised.

Electives

Sufficient to meet degree and/or certification requirements.

Academic Core

KINE 1124, 1215, 1314, 2201, 2202 3203, 3301, 3304, 3306, 3315, 3325, 3388, 4222, 4320, and 4321. (KINE 2201 & 2202 will be used to fulfill the university EXSA/DNCA activity requirement)

Electives

KINE electives sufficient to give the total number of hours required for the degree and to meet certification requirements.

Total

128 hours (plus additional hours needed to meet certification requirements), 36 of which must be 3000/4000 level, plus KINE 2201 and 2202 to fulfill the University requirement.

Athletic Training Education Program

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: 1) to prepare students to pass the NATA-BOC (National Athletic Trainers Association Board of Certification) Exam, 2) to prepare students to pass the Texas Advisory Board of Athletic Trainers State Licensure Exam, 3) to develop students' critical-thinking and decision-making skills for success in the allied health profession of athletic training, 4) to instill the value of professionalism, 5) to teach students the value of becoming involved in their professional associations through service work, and 6) to facilitate students' efforts in locating and securing an athletic training job or placement in a graduate school.

Students within the ATEP are able to choose between two Bachelor of Science and two Bachelor of Arts degree plans:

- BS in Athletic Training with Secondary Teaching Certificate
- BS in Athletic Training (non teaching)
- BA in Athletic Training with Secondary Teaching Certificate
- BA in Athletic Training (non teaching)

In addition to formal classroom instruction, students within the ATEP 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 published by the National Athletic Trainers Association (NATA) Education Council and the Role Delineation Study conducted and published by the NATA-BOC. Within the clinical education and field experience components of the ATEP, students gain experience working with athletes and other physically active individuals in a variety of clinical settings (college, high school, sports medicine clinics, doctors' offices, etc.). During their clinical and field experiences, students are required to complete a total of 1,800 hours over a three year period working under the supervision of a certified and licensed athletic trainer.

As of January 2004, students wishing to sit for the NATA-BOC Exam must have completed a CAAHEP Accredited ATEP. The University's ATEP is currently pursuing accreditation through the Commission on Accreditation of Allied Health Education Programs (CAAHEP). The University's ATEP was awarded candidacy status by the Joint Review Committee on Educational Programs in Athletic Training for the academic year 2000-2001. There is no guarantee that the U.T. Arlington ATEP will be approved; however, the University is strongly committed to achieving this goal.

Admission Criteria

Admission to the Athletic Training Education Program (ATEP) at The University of Texas at Arlington 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 a Pre-Professional Phase of study that includes both formal classroom instruction and clinical observation before they can apply for admission to 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, as well as meet the expectations of CAAHEP. The technical standards are printed in the ATEP handbook.

Pre-Professional Phase

The Pre-Professional Phase is typically completed during the student's freshman year at U.T. Arlington and includes the following requirements*:

- KINE 2330 Prevention and Care of Athletic Injuries (3 credit hours) [Grade of B or better].
- KINE 2130 Clinical Practicum I (1 credit hour) [Grade of B or better].
- BIOL 1441 Cellular and Molecular Biology (4 credit hours) [prerequisite for Anatomy and Physiology].
- Completion/documentation of a minimum of 60 hours of clinical observation in the U.T. Arlington athletic training room(s) and other approved clinical education sites.
- Completion/documentation of a minimum of 120 hours of directed clinical experience in the U.T. Arlington athletic training room(s) and other approved clinical education sites.
- Successful completion/documentation of required competencies and clinical proficiencies with a score of 80% or better.

* Transfer students may complete the Pre-Professional course requirements at their current junior or senior college (must be able to transfer them for credit) or complete them upon arrival to U.T. Arlington.

Professional Phase

The Professional Phase of the program requires a minimum of three years of classroom study and clinical experience. Completion of the program requirements will enable students to be eligible for the National Athletic Trainers' Association Board of Certification (NATA-BOC) Exam and the Texas Advisory Board of Athletic Trainers Licensing Exam.

Admission to the Professional Phase of the U.T. Arlington ATEP is based on the following criteria:

1. Admission to The University of Texas at Arlington.
2. Successful completion of the Pre-Professional Phase of Study.
3. Overall GPA of 2.5 or higher.
4. Submission of application with transcripts and three letters of recommendation.
5. Completion of a personal interview with the ATEP Admissions Committee which will consist of the Program Director, two staff athletic trainers and one upper-level student athletic trainer.

Retention Criteria

Students are expected to maintain an overall GPA of 2.5 and earn a B or better in all athletic training core courses (athletic training courses with an earned grade of C or lower must be repeated). If a student fails to maintain an overall GPA of 2.5, they will be placed on probation. A student will be afforded two semesters, at most, to raise their GPA to a 2.5 or greater. 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 tutorial 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.

Requirements for a Bachelor of Science Degree in Athletic Training (Secondary Teacher Certification)

English

1301, 1302.

Literature

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

Liberal Arts

SPCH 1301 or 2304.

Fine Arts

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

History

1311, 1312.

Political Science

2311, 2312.

Math

Six hours (level of college algebra or higher).

Social/Cultural Studies

Three hours of psychology or sociology.

Science

BIOL 1441, 2457, 2458, PHYS 1441, CHEM 1301.

Additional Required Science

HEED 3301, BIOL 3310, KINE 3325, 4300, 4301.

Athletic Training Academic Core

1124, 1314, 2330, 3301, 3304, 3315, 3330, 3333, 3336, 4320, 4333, 4336, 4393.

Athletic Training Practicum

2130, 3130, 4130, 4131.

Education Sequence (24 hrs) + READ (3 hrs) *

EDUC 4101, 4201, 4340, 4341, 4342, 4347, 4352, 4647, READ 4343 or 4391.

* Students interested in Texas Teacher Certification should consult the School 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.

Total

137 hours, 36 of which must be 3000/4000 level plus KINE 2130, 3130, 4130 and 4131 to fulfill the University activity requirement.

Requirements for a Bachelor of Science Degree in Athletic Training (Non-Teaching)

English

1301, 1302.

Literature

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

Liberal Arts

SPCH 1301 or 2304.

Fine Arts

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

History

1311, 1312.

Political Science

2311, 2312.

Math

Six hours (level of college algebra or higher).

Social/Cultural Studies

Three hours of psychology or sociology.

Science

BIOL 1441, 2457, 2458, PHYS 1441, CHEM 1301, 1302, 1284.

Additional Required Science

HEED 3301, BIOL 3310, KINE 4300.

Athletic Training Academic Core

1124, 1314, 2330, 3301, 3304, 3315, 3330, 3333, 3336, 4320, 4333, 4336, 4393.

Athletic Training Practicum

2130, 3130, 4130, 4131.

Additional Required Kinesiology Courses

3306, 3325, 4301, 4315, 4316 plus three hours of Science or Kinesiology electives.

Total

128 hours, 36 of which must be 3000/4000 level plus KINE 2130, 3130, 4130, and 4131 to fulfill the University activity requirement.

Requirements for a Bachelor of Arts Degree in Athletic Training (Secondary Teacher Certification)

English

1301, 1302.

Literature

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

Liberal Arts

SPCH 1301 or 2304.

Fine Arts

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

History

1311, 1312.

Political Science

2311, 2312.

Math

Six hours (level of college algebra or higher).

Psychology/Sociology

Three hours of psychology or sociology.

Science

BIOL 1441, 2457, 2458.

Modern Language

1441, 1442, 2313 or equivalent, 2314.

Athletic Training Academic Core

KINE 1124, 1314, 2330, 3301, 3304, 3315, 3330, 3333, 3336, 4320, 4333, 4336, 4393.

Athletic Training Practicum

KINE 2130, 3130, 4130, 4131.

Additional Required Courses

KINE 3325, HEED 3301, BIOL 3310.

Education Sequence (24 hrs) + READ (3 hrs) *

EDUC 4101, 4201, 4340, 4341, 4342, 4347, 4352, 4647, READ 4343 or 4391.

*Students interested in Texas Teacher Certification should consult the School 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.

Total

139 hours, 36 of which must be 3000/4000 level plus KINE 2130, 3130, 4130, and 4131 to fulfill the University activity requirement.

Requirements for a Bachelor of Arts Degree in Athletic Training (Non-Teaching)

English

1301, 1302.

Literature

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

Liberal Arts

SPCH 1301 or 2304.

Fine Arts

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

History

1311, 1312.

Political Science

2311, 2312.

Math

Six hours (level of college algebra or higher).

Psychology/Sociology

Three hours of psychology or sociology.

Science

BIOL 1441, 2457, 2458.

Modern Language

1441, 1442, 2313 or equivalent, 2314.

Athletic Training Academic Core

KINE 1124, 1314, 2330, 3301, 3304, 3315, 3330, 3333, 3336, 4320, 4333, 4336, 4393.

Athletic Training Practicum

KINE 2130, 3130, 4130, 4131.

Additional Required Courses

KINE 3306, 3325, 3388, 4191, 4301, 4315, 4316, HEED 3301, BIOL 3310.

Total

128 hours, 36 of which must be 3000/4000 level plus KINE 2130, 3130, 4130, and 4131 to fulfill the University activity requirement.

Oral Communication Competencies

All students declared as majors in the Department of Kinesiology are required to complete SPCH 1301 Fundamentals of Speech, 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 1314 and KINE 1124, Biophysical Principles of Human Movement and Biophysical Principles Laboratory, early in their specialization. Embedded in these classes 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.

Option for Minor in Dance

The Dance Minor is offered for students who wish to concentrate in dance as a part of their undergraduate curriculum. With the permission of their departmental advisors, students may enroll in a series of courses and obtain a minor in dance. Students selecting the Dance Minor should consult first with the advisors in their departments or programs for approval of the minor, then with the Kinesiology advisor.

Required Courses for Students Selecting the Dance Minor

DNCA 1232 and 1235.

DNCE 3312, 4310 and 4332.

KINE 1124, 1314, and 3301.

Other Dance Classes Available:

DNCA 0130, 0131, 0132, 0133, 0134, 0135, 0136, 0139 and 1236.

DNCE 1300, 3210, 4312.

Department of Kinesiology Faculty

Chair

Professor McKeown

Professor

Ridgway

Associate Professors

Everhart, Fincher, Reeves

Assistant Professors

Beckham, Maxwell, Wilson, Yilla

Adjunct Assistant Professors

Graves, Hawkins, Haselbarth, White

Specialists

Coari, Harper, Walts

Kinesiology (KINE)

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.

1124. BIOPHYSICAL PRINCIPLES OF HUMAN MOVEMENT LABORATORY (0-3) 1 hour credit. Lab experiences designed for application of fundamental principles covered in KINE 1314. Provides an opportunity for the student to experience the application of physical fitness training using various training principles and techniques. Prerequisite: Concurrent enrollment in KINE 1314.

1215. CULTURAL ANALYSIS OF EXERCISE AND SPORT (2-0) 2 hours credit. A study of exercise and sport within the cultural context. Emphasis on the development of exercise and sport in our society. The course includes an introduction to and observation of various fields in health, exercise science and physical education.

1314. BIOPHYSICAL PRINCIPLES OF HUMAN MOVEMENT (3-0) 3 hours credit. Introduction to key concepts concerning the anatomical, mechanical, physiological, neural and psychological basis of human movement. Overview of the multidimensional changes in movement and movement potential that occur as an adaptation to training and other lifestyle factors. Prerequisite: Concurrent enrollment in KINE 1124.

2130. CLINICAL PRACTICUM I (1-2) 1 hour credit. Laboratory and clinical experiences designed to provide students with formal instruction and evaluation in the Entry Level Athletic Training Clinical Proficiencies. This course requires the completion of 300 hours of clinical experience performed under the supervision of an Approved Clinical Instructor. Prerequisite: Acceptance into the Athletic Training Education Program or approval of the instructor.

2201. INTEGRATION OF INVASION GAME PRINCIPLES IN PERFORMANCE (1-2) 2 hours credit. The course will provide students with theoretical concepts with which they can design and analyze various short and long-term plans related to invasion games in an instructional setting. 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 invasion games. Prerequisite or Co-requisite: KINE 1215. Fall only.

2202. INTEGRATION OF NET/WALL GAME PRINCIPLES IN PERFORMANCE (1-2) 2 hours credit. The course will provide students with theoretical concepts with which they can design and analyze various short and long-term plans related to net/wall games in an instructional setting. 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 net/wall games. Prerequisite: KINE 2201. Spring only.

2330. CARE AND PREVENTION OF ATHLETIC INJURIES (3-0) 3 hours credit. 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.

3130. CLINICAL PRACTICUM II (1-2) 1 hour credit. Laboratory and clinical experiences designed to provide students with formal instruction and evaluation in the Entry Level Athletic Training Clinical Proficiencies. This course requires the completion of 300 hours of clinical experience performed under the supervision of an Approved Clinical Instructor. Prerequisite: Acceptance into the Athletic Training Education Program or approval of the instructor.

3203. INTEGRATION OF FITNESS PRINCIPLES IN AN INSTRUCTIONAL SETTING (1-2) 2 hours credit. The course will provide students with theoretical concepts with which they can design and analyze various short and long-term plans intended to integrate fitness and physical activity in an instructional setting. Students will learn various health-related concepts and will be expected to apply those concepts in an instructional setting. Students will apply theoretical concepts in applied physical activity settings throughout the semester. Prerequisite: KINE 3388.

3301. BIOMECHANICS OF HUMAN MOVEMENT (2-2) 3 hours credit. 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. Prerequisites: KINE 1124, 1314, BIOL 2457 and MATH 1302, or permission of instructor.

3302. BEHAVIORAL DYNAMICS OF EXERCISE AND SPORT (3-0) 3 hours credit. Analysis of exercise and sport activities in terms of behavioral skills and strategies. Emphasis on the examination of perceptual and affective processes used in exercise and sport.

3303. ORGANIZATIONAL PRINCIPLES OF EXERCISE AND SPORT ACTIVITIES (3-0) 3 hours credit. 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.

3304. ADAPTED EXERCISE AND SPORT ACTIVITIES (3-0) 3 hours credit. Analysis of conditions that impact individuals with special needs. Emphasis on biomechanical, neurological, structural, and behavioral anomalies that impact participation in exercise and sport activities. Prerequisite: KINE 3301 and 3306 or permission of instructor.

3306. MOTOR INTEGRATION (2-2) 3 hours credit. Principles of motor skill acquisition, performance, and control. Emphasis on the use of transfer, memory, practice schedules, motivation, knowledge of results, neuromotor functioning, and differences in motor abilities that are involved in motor skill performance. Prerequisites: KINE 1124, 1314, BIOL 2457, and BIOL 2458 or permission of instructor.

3307. SOCIOCULTURAL ASPECTS OF SPORT (3-0) 3 hours credit. Sociological dynamics as they relate to sport and exercise activities. Examination of the interdependent nature of sociological structures and current issues.

3309. FOUNDATIONS OF RECREATION (3-0) 3 hours credit. 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.

3311. RECREATION AND LEISURE SERVICE (3-0) 3 hours credit. Application of management and organizational principles, objectives, and procedures involved in implementing recreational and leisure service programs.

3315. PHYSIOLOGY OF EXERCISE (2-2) 3 hours credit. 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. Laboratory experiences are designed for evaluating physiological responses to exercise. Prerequisites: KINE 1124, 1314, BIOL 2457 and 2458, MATH 1302, or permission of instructor.

3325. DATA ACQUISITION AND MANAGEMENT (3-0) 3 hours credit. Current practices in the conduct of data-based measurement and evaluation processes applied to programs related to exercise, sport, and related fields. Prerequisites: KINE 1124, 1314, MATH 1302, computer literacy, or permission of instructor.

3330. ADVANCED ATHLETIC TRAINING (2-2) 3 hours credit. Advanced topics in athletic training with a special emphasis on pharmacology and pathology. Prerequisites: Acceptance into the Athletic Training Education Program or permission of the instructor.

3333. THERAPEUTIC MODALITIES (2-2) 3 hours credit. Provides a theoretical background for the understanding of the acute inflammatory response, wound healing, and the clinical application of therapeutic modalities. Prerequisites: Acceptance into the Athletic Training Education Program or approval of the instructor.

3336. UPPER AND LOWER EXTREMITY EVALUATION (2-2) 3 hours credit. A study of the common orthopedic/sports-related injuries to the upper and lower extremity, thorax, head and spine, with a special emphasis on evaluation and initial management. Prerequisites: BIOL 2457, acceptance into the Athletic Training Education Program or approval of the instructor.

3388. THEORY AND APPLICATION IN MOTOR DEVELOPMENT (3-0) 3 hours credit. 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. Prerequisite: KINE 1124, 1314.

4130. CLINICAL PRACTICUM III (1-2) 1 hour credit. Laboratory and clinical experiences designed to provide students with formal instruction and evaluation in the Entry Level Athletic Training Clinical Proficiencies. This course requires the completion of 300 hours of clinical experience performed under the supervision of an Approved Clinical Instructor. Prerequisite: Acceptance into the Athletic Training Education Program or approval of the instructor.

4131. CLINICAL PRACTICUM IV (1-2) 1 hour credit. Laboratory and clinical experiences designed to provide students with formal instruction and evaluation in the Entry Level Athletic Training Clinical Proficiencies. This course requires the completion of 300 hours of clinical experience performed under the supervision of an Approved Clinical Instructor. Prerequisite: Acceptance into the Athletic Training Education Program or approval of the instructor.

4191, 4291, 4391. UNDERGRADUATE CONFERENCE COURSE (Variable credit as arranged). Topics assigned on an individual basis covering personal research or study in the designated area. Prerequisite: permission of department chairperson.

4192, 4292, 4392. EXERCISE AND SPORT ACTIVITIES PRACTICUM (Variable credit as arranged). Designed to provide supervised experiences in an exercise and sport activity setting. Allows for experience in agency, educational, industrial, or recreational settings. Prerequisites: junior standing and departmental permission. May be repeated once for recreation area. Students must make application for enrollment prior to October 1 for Spring Semester and April 1 for Fall Semester.

4196, 4296, 4396. SPECIAL TOPICS IN EXERCISE AND SPORT (Variable credit as arranged). Designed to meet the current needs of students. May be repeated for credit when the topic changes.

4201. ADVANCED TECHNIQUES AND TACTICS OF BASEBALL (1-2) 2 hours credit. Development and analysis of skills, offensive and defensive strategies used in the sport of baseball.

4202. ADVANCED TECHNIQUES AND TACTICS OF BASKETBALL (1-2) 2 hours credit. Development and analysis of skills, offensive/defensive strategies used in the sport of basketball.

4203. ADVANCED TECHNIQUES AND TACTICS OF FOOTBALL (1-2) 2 hours credit. Development and analysis of skills, offensive and defensive strategies used in the sport of football.

4204. ADVANCED TECHNIQUES AND TACTICS OF TRACK AND FIELD (1-2) 2 hours credit. Development and analysis of track and field event techniques and strategies.

4205. ADVANCED TECHNIQUES AND TACTICS OF VOLLEYBALL (1-2) 2 hours credit. Development and analysis of skills, offensive and defensive strategies used in the sport of volleyball.

4222. APPLYING INSTRUCTIONAL CONTENT FOR CHILDREN (1-2) 2 hours credit. The course is intended to enable students to apply theoretical concepts from methodology instruction in a prior course into instructional design of learning opportunities for children in elementary physical education classes. Students will be expected to identify learning standards and design appropriate content to help children achieve those standards. An emphasis will be placed on formative assessment and application of course content in a clinical teaching experience. Prerequisite: KINE 4321.

4300. APPLIED EXERCISE PHYSIOLOGY (2-2) 3 hours credit. 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 research

project enhance the student's understanding of physiological changes and career paths in exercise science. Prerequisites: KINE 3315, 3325, 4315, and MATH 1302, or permission on instructor.

4301. APPLIED KINESIOLOGY (2-2) 3 hours credit. This course includes a brief review of basic anatomy, including muscle origin and insertion, location, and action. The primary focus will involve analysis of basic and complex activities and sports skills, as well as, application of this information to the design of training programs, injury prevention, and performance of sports skills. Prerequisites: BIOL 2457, KINE 1214, 1314, and 3301 or permission of instructor.

4305. STRATEGIES OF PERFORMANCE (3-0) 3 hours credit. Application of sport psychology principles and strategies to performance dynamics in sport, music, dance, and other performance arenas. Issues such as personality, arousal management, motivation, attribution, awareness, concentration, communication, and performance enhancement; emphasis on self-application.

4315. FITNESS MEASUREMENT (2-3) 3 hours credit. Classroom and laboratory experiences provide the student with an opportunity to become familiar with the assessment of physical fitness. Specific areas of study include graded exercise testing, basic ECG interpretation, body composition, muscular strength and endurance, and flexibility. Prerequisites: Current CPR certification, KINE 3315, 3325, and MATH 1302, or permission of instructor.

4316. FITNESS PROGRAMMING (2-2) 3 credit hours. Classroom and laboratory experiences are designed to enhance the student's knowledge of risk factor identification, health status stratification, exercise leadership, and prescription. Case study and laboratory experiences provide the student with practical methods of exercise prescription and lifestyle modification in healthy, high risk, and special populations. Prerequisites: Current CPR certification, MATH 1302, KINE 3315, and KINE 4315 or permission of the instructor.

4320. INTEGRATION OF PRINCIPLES OF EXERCISE AND SPORT: PERFORMANCE (2-3) 3 hours credit. Designed to synthesize the sciences of anatomy, physiology, biomechanics, and exercise physiology, and to integrate the resulting principles with theories of motor learning and motor control as applied to exercise and sport performance. Prerequisites: KINE 3388 and 3304.

4321. INTEGRATION OF PRINCIPLES OF EXERCISE AND SPORT: TRANSITIONAL ACTIVITIES (2-3) 3 hours credit. Designed to synthesize the sciences of anatomy, physiology, biomechanics, and exercise physiology, and to integrate the resulting principles with theories of motor learning and motor control as applied to transitional activities. Prerequisites: KINE 3388 and 3304.

4330. PROGRAM DESIGN AND ADMINISTRATION (3-0) 3 hours credit. The development of health/wellness programs will be presented, including program design, marketing, delivery, and evaluation. The student will participate in all phases of program development, such as budget development, recruiting and retaining employees and clients, market niche, and conflict resolution. Prerequisites: KINE 3315 and 4316 or concurrent enrollment, or permission of instructor.

4333. ATHLETIC TRAINING ORGANIZATION AND ADMINISTRATION (3-0) 3 hours credit. 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. Prerequisites: Acceptance into the Athletic Training Education Program or approval of the instructor.

4335. ECG INTERPRETATION (3-0) 3 hours credit. Principles of electrocardiography will be explored, with emphasis on interpretation of resting and stress ECGs. Interpretation of dynamic rhythm strips will prepare students to work in cardiac rehabilitation and other allied health professions. Prerequisites: BIOL 2457, BIOL 2458, and KINE 3315 or permission of instructor.

4336. THERAPEUTIC EXERCISE (2-2) 3 hours credit. Provides theoretical background and practical application of the principles and techniques related to the rehabilitation of athletic injuries. Both surgical and non-surgical rehabilitation models will be discussed with a special emphasis on the use of functional progressions. Prerequisites: Acceptance into the Athletic Training Education Program or approval of the instructor.

4387. EXERCISE SCIENCE PRACTICUM (0-9) 3 hours credit. 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. Prerequisites: KINE 4300 or concurrent enrollment, KINE 4315, and permission of instructor.

4390. PRACTICUM IN SPORT PERFORMANCE (0-9) 3 hours credit. 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.

4393. PRACTICUM IN ATHLETIC TRAINING TECHNIQUES (0-9) 3 hours credit. Experiences in athletic training on an individual basis under direct supervision of a certified athletic trainer. May be repeated for credit. Designed on an individual basis to provide understanding and application of advanced techniques and current research findings related to athletic training and sports medicine. Prerequisite: KINE 2330 and acceptance into the Athletic Training Education Program or prior approval of instructor.

4394. HONORS THESIS/SENIOR PROJECT (3-0) 3 hours credit. 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.

4395. INDIVIDUAL STUDY IN EXERCISE AND SPORT (3-0) 3 hours credit. 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.

4388, 4688, 4988. EXERCISE SCIENCE INTERNSHIP (Variable credit as arranged.) 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. Prerequisites: GPA of 2.0 or above in KINE 1124, 1314, 3315, 4300 or concurrent enrollment, 4315, 4316 and 4387 or concurrent enrollment, current CPR certification, proof of sufficient professional liability insurance, and permission of instructor.

4389, 4689, 4989. FITNESS MANAGEMENT INTERNSHIP (Variable credit as arranged.) 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. Prerequisites: Current CPR certification, KINE 4315, KINE 4316, proof of sufficient professionally liability insurance, and permission of instructor.

Dance Theory Courses (DNCE)

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.

1300. DANCE APPRECIATION (3-0) 3 hours credit. 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.

3210. DANCE IMPROVISATION (1-2) 2 hours credit. Study of basic concepts and movement problems through spontaneous movement. Study will include application of improvisational techniques to movement exploration, relationship between techniques, and choreographic process, and improvisation as a performance form. Prerequisites: DNCA 1232 and 1235 or permission of instructor.

3312. DANCE HISTORY (3-0) 3 hours credit. The development of dance from primitive civilizations to the 20th Century. The communicative development and the aesthetic aspects of dance which connect the multicultural development throughout history.

4310. DANCE PRODUCTION (2-2) 3 hours credit. Lecture and practical experience with production techniques and problems involved in dance events. Study will include techniques in directing, lighting design, sound, costuming, publicity, and administrative procedures.

4312. INTEGRATION AND APPLICATION OF PRINCIPLES OF DANCE (2-2) 3 hours credit. Designed to synthesize the sciences of anatomy, physiology, and biomechanics, and apply scientific principles to dance performance. Prerequisite: KINE 3301 or permission of instructor.

4332. CHOREOGRAPHY (3-0) 3 hours credit. Principles of dance composition including idea generation, form and flow of movement design elements, and dramatic staging through development of movement themes and evaluation of compositional forms. Prerequisite: permission of instructor.

Exercise and Sport Activity (EXSA) Courses and Dance Activity (DNCA) Courses

Four hours of exercise and sport (EXSA) and/or dance (DNCA) activities are required for graduation and it is recommended that these courses be taken in the first four semesters of attendance. EXSA or DNCA activity courses on the 1200 level taken for a semester will satisfy two semester hours of the requirement.

Locker Rooms: Lockers or baskets, locks and towels are provided to students who are enrolled in activity classes. If desired, these can be secured from the attendants in the locker rooms at the beginning of each semester.

Periods: All one-semester-hour activity classes meet two laboratory hours per week. All two-semester-hour classes meet three hours per week.

Fees: Lab and course fees are assessed in all activity classes. Fees are indicated with the classes in the current Schedule of Classes.

The following activities are offered.

Dance Activity Courses (DNCA)

Activity Courses—Dance (0-2) 1 hour credit.

- 0130. Country & Western Dance
- 0131. Ballroom Dance
- 0132. Modern Dance
- 0133. Swing Dance
- 0134. Tap Dance
- 0135. Ballet
- 0136. Jazz Dance
- 0139. Dance Performance (Audition Required)

Activity Courses—Dance (0-3) 2 hours credit.

- 1232. Intermediate Modern Dance
- 1235. Intermediate Ballet
- 1236. Intermediate Jazz

Exercise and Sport Activity Courses (EXSA)

Activity Courses—Individual Sports (0-2) 1 hour credit.

- 0101. Archery
- 0105. Badminton
- 0107. Martial Arts
- 0120. Bowling
- 0140. Golf
- 0145. Beginning Fencing
- 0166. Racquetball
- 0177. Tennis—Beginning and Intermediate
- 0178. Tennis—Advanced

Activity Courses—Team Sports (0-2) 1 hour credit.

- 0108. Basketball
- 0167. Soccer
- 0180. Volleyball
- 0181. Volleyball Advanced

Activity Courses—Swimming (0-2) 1 hour credit.

- 0170. Beginning Swimming
- 0171. Water Polo
- 0172. For Fitness
- 0173. Intermediate and Advanced
- 0174. Water Aerobics

Activity Courses—Recreation and Conditioning (0-2) 1 hour credit.

- 0154. Fitness Walking
- 0155. Individualized Fitness Program
- 0156. Jogging for Fitness
- 0157. Aerobic Dance
- 0158. Physical Conditioning
- 0159. Exercise and Sport for the Handicapped
- 0160. Step Aerobics
- 0161. Backpacking
- 0162. Orienteering
- 0184. Weight Training

Activity Courses (1-2) 2 hours credit.

- 1220. Lifeguard Training hours credit.
- 1240. Healthy Lifestyles¹
- 1246. Self Defense for Women
- 1249. SCUBA Diving²
- 1259. Advanced SCUBA²

Activity Courses—Special Permission Classes (0-2) 1 hour credit.
0189. Intercollegiate Athletics

Activity Courses—Designated Activities (0-2) 1 hour credit.
0191. Designated Activities

¹ Healthy Lifestyles, a highly interactive course, emphasizes the benefits of living a healthy lifestyle and the consequences of poor lifestyle choices. The student performs a self-assessment of physical well being and then constructs a goal-oriented plan to enhance a healthy lifestyle. The course requires the student to be concurrently enrolled in a one-hour activity class (excluding archery, bowling and golf), enabling the student to complete three of the four required EXSA/DNCA semester credit hours in one semester.

² SCUBA course requires a \$163 fee in addition to a laboratory fee of \$2. This fee will be assessed at registration.

Students should fully understand the purpose of this extra cost and should talk with the SCUBA instructor before registering for the course. NAUI (National Association of Underwater Instructors) certification offered.

Health (HEED)

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

1301. NUTRITION (3-0) 3 hours credit. A study of nutrients essential to an adequate diet and good health; the nutritive values of common foods. Also listed as BIOL 1301. Credit will be granted for only one of these courses. Students seeking certification in Health must enroll in HEED 1301. Students seeking credit toward their science requirement must enroll in BIOL 1301. Cannot be counted toward a BS degree in biology.

1316. FOUNDATIONS OF HEALTH (3-0) 3 hours credit. 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.

2300. STUDENT HEALTH PEER TRAINING (3-0) 3 hours credit. 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 the instructor. 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. Prerequisite: permission of the instructor.

2317. BASIC CONCEPTS IN HUMAN SEXUALITY (3-0) 3 hours credit. The physiological, psychological, sociological aspects of human sexuality. Also listed as BIOL 2317 and PSYC 2317. Credit will be granted for one only. Students seeking certification in Health must enroll in HEED 2317. Students seeking credit toward their science requirement must enroll in BIOL 2317. Cannot be counted for major credit toward a degree in biology, psychology, or sociology.

3301. PRINCIPLES OF APPLIED NUTRITION (3-0) 3 hours credit. The etiology of disease as related to nutritional factors, current research regarding the link between diet and chronic diseases, and application of dietary behaviors to promote health-enhancing lifestyles.

3303. DRUGS AND BEHAVIOR (3-0) 3 hours credit. Examines the therapeutic use and abuse of psychoactive agents, as well as the personal and social consequences of alcohol, nicotine, caffeine, narcotics, hallucinogens, stimulants, and tranquilizers. Also listed as PSYC 3303 and BIOL 3303. Credit will be granted only once under present and former numbers. Students seeking credit in PSYC should enroll in PSYC 3303 (formerly 3312), and students seeking credit in BIOL should enroll in BIOL 3303.

3305. WOMEN'S HEALTH ISSUES (3-0) 3 hours credit. 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. Also listed as WOMS 3305. Credit will not be granted for both courses.

3330. CONSUMER HEALTH (3-0) 3 hours credit. 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.

4310 STRESS MANAGEMENT (3-0) 3 hours credit. 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.

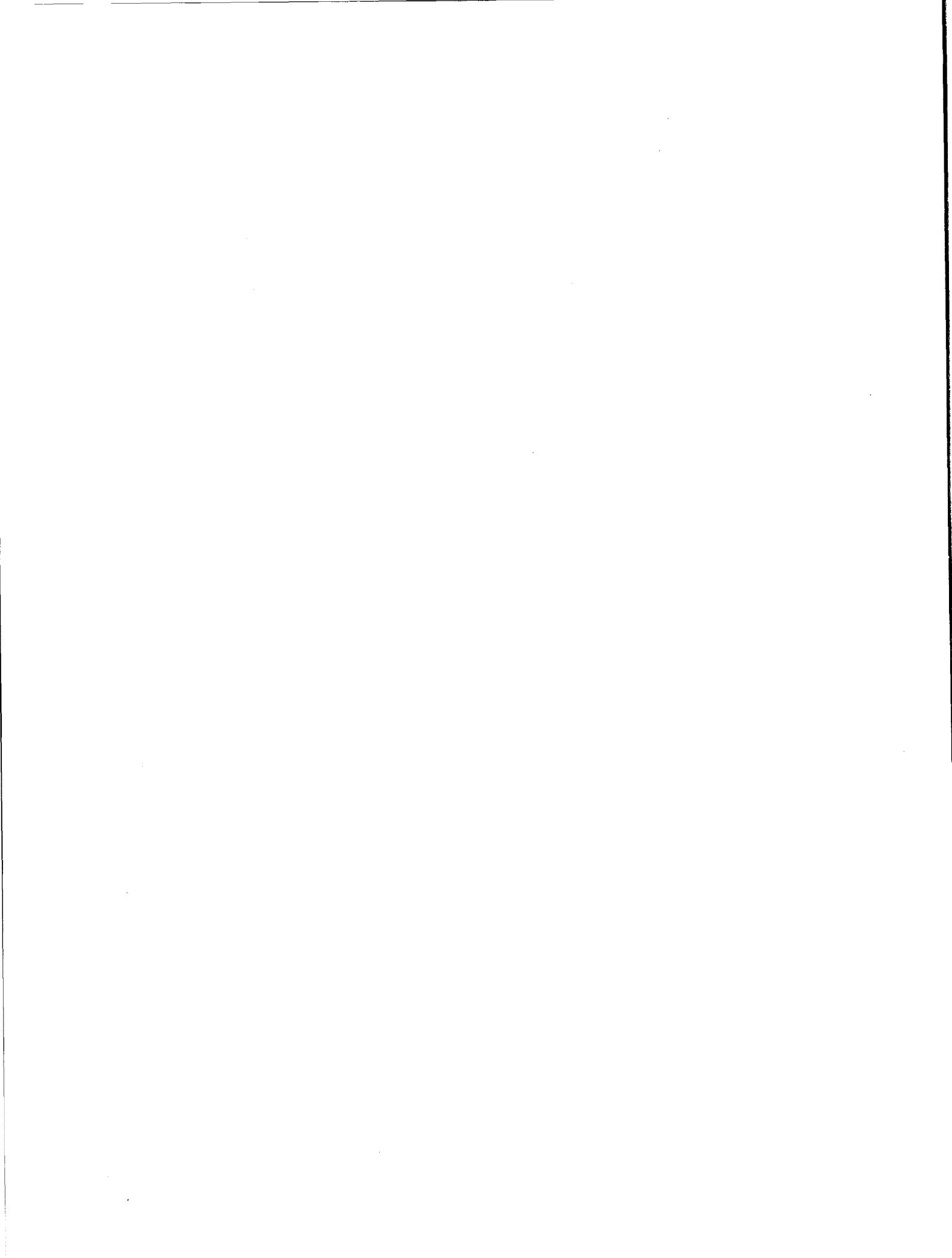
4312. ENVIRONMENTAL HEALTH AND DISEASE (3-0) 3 hours credit. Basic principles of ecology as they relate to the general health of society. Control and prevention of diseases.

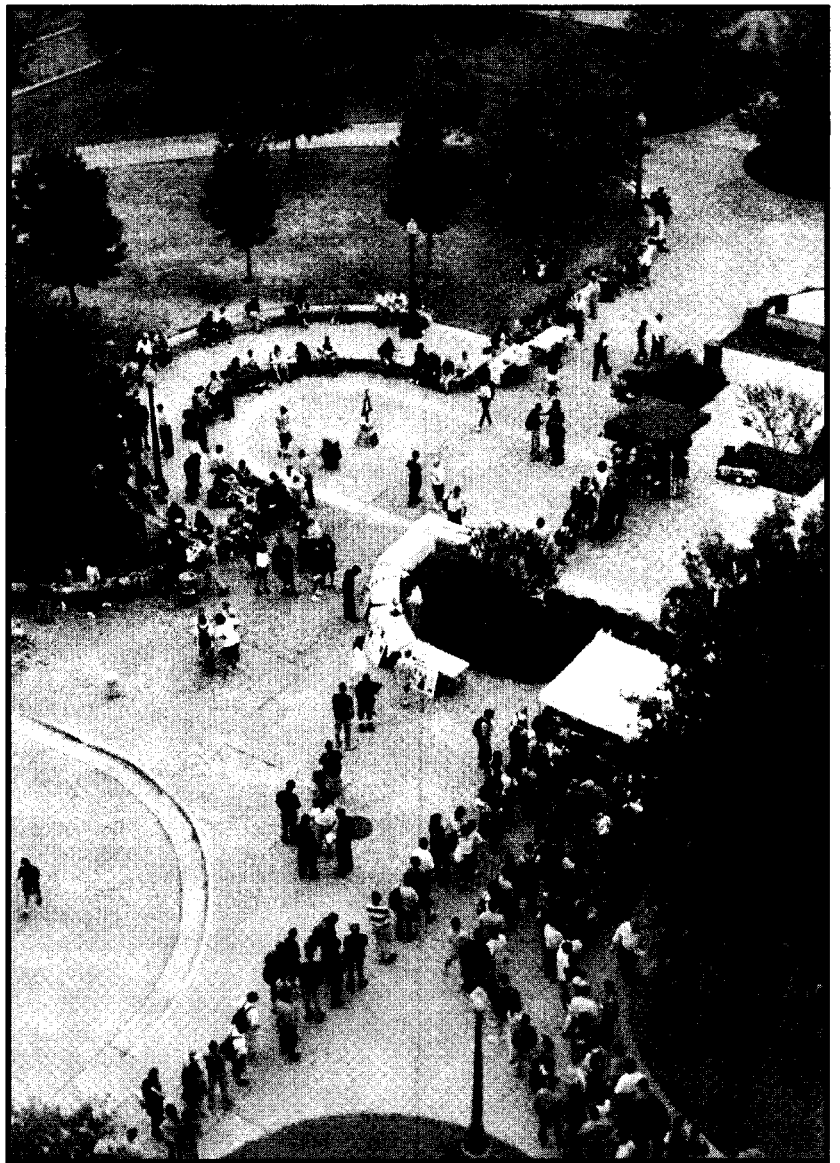
4320. AGING AND DEATH (3-0) 3 hours credit. Emphasis on complex issues associated with aging and death. Topics include changes/losses related to specific stages of life; care-giving to the dying; pertinent legal issues; medical gerontology; other salient issues and problems concerning aging and death. This course is especially helpful to those students who plan careers in the medical profession.

4340. PRINCIPLES OF HEALTH APPLICATIONS (3-0) 3 hours credit. This course is designed to integrate the information base of health studies into action plans for organizations and agencies. Prerequisite: HEED 1316 plus nine additional credit hours in health.

4191, 4291, 4391. UNDERGRADUATE CONFERENCE COURSE (Variable credit as arranged). Topics assigned on an individual basis covering personal research or study in the designated area. Prerequisite: permission of department chairperson.

4192, 4292, 4392. SPECIAL TOPICS IN HEALTH (Variable credit as scheduled). Designed to present topics in health not currently offered in existing curriculum. May be repeated for credit when the topic changes.





The College of Engineering

The College of Engineering

Dean: Bill D. Carroll, Ph.D., P.E.

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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 several branches of engineering under the guidance of an excellent faculty. Baccalaureate degree programs are offered in aerospace engineering, civil engineering, computer science and engineering, electrical engineering, industrial engineering, and mechanical engineering. These programs are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). The computer science and engineering program is also accredited by the Computing Sciences Accreditation Board (CSAB). A new program leading to a Bachelor of Science in Computer Science was initiated in Spring 2001. Another new program leading to a Bachelor of Science in Software Engineering is offered beginning Fall 2001. Graduate degrees, both master's and doctoral, are offered in each of these disciplines, and in other areas of specialization: biomedical engineering, manufacturing, materials science, and software engineering (master's 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 U.T. Arlington Graduate Catalog for details.

All baccalaureate engineering degree programs are designed to insure that graduates have:

- (a) an ability to apply knowledge of mathematics, science and engineering;
- (b) an ability to design and conduct experiments, as well as to analyze and interpret data;
- (c) an ability to design a system, component or process to meet desired needs;
- (d) an ability to function in a multidisciplinary team;
- (e) an ability to identify, formulate and solve engineering problems;
- (f) an understanding of professional and ethical responsibility;
- (g) an ability to communicate effectively;
- (h) the broad education necessary to understand the impact of engineering solutions in the global / societal context;
- (i) a recognition of the need for an ability to engage in life long learning;
- (j) a knowledge of contemporary issues; and
- (k) an ability to use the techniques, skills and modern engineering tools necessary for engineering practice (the ABET Engineering Criteria 2000).

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 in November 1993. 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	
either		
Trigonometry and Additional Advanced Mathematics	1/2 unit each	
or		
Precalculus*	1 unit	
Science		4 units
Chemistry	1 unit	
Physics	1 unit	
Other Science Courses	2 units	
Computer Science**		1 unit
Single Foreign Language***		3 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		4 units
TOTAL		24 units

* Must explicitly include trigonometry.

** Most desirable syllabus would include computer programming in Pascal, C or C++, and instruction in computer applications including word processing, spreadsheets, and data base management.

*** 2 units required by the College of Engineering.

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

CHEM 1301 General Chemistry

PHYS 1443 General Technical Physics (which can be taken concurrently with MATH 1426)

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:

1. Students must meet the U.T. Arlington admissions requirements.
2. Students must present an SAT score of 1200 or higher or a composite ACT score of 27 or higher.
3. Students must have completed the prerequisites necessary to enroll in MATH 1426 and PHYS 1443.
4. 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 U.T. Arlington as well as those from other educational institutions. Transfer students from outside U.T. 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 30 hours of transferable credit are admitted under the criteria for students entering directly from high school.

Transfer students with 30 hours or more of transferable credit must meet the following requirements:

1. Students must meet the U.T. Arlington admissions requirements.
2. Students must have completed at least the prerequisites necessary to enroll in MATH 1426 and PHYS 1443.
3. 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.
4. 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 on the next page.)

5. Students must comply with the C-grade rule. (See Academic Regulation 5 on next page.) 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 U.T. 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), CSE (Computer Science and Engineering), EE (Electrical Engineering), IE (Industrial Engineering), ME (Mechanical Engineering), CS (Computer Science) or SE (Software Engineering). If all criteria are not met, students who have decided on their major may be admitted as a program pre-major: pre-AE (Aerospace Engineering), pre-CE (Civil Engineering), pre-CSE (Computer Science and Engineering), pre-EE (Electrical Engineering), pre-IE (Industrial Engineering), pre-ME (Mechanical Engineering), pre-CS (Computer Science) or pre-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 a pre-major can apply to their department for advancement into the major when conditions specified by the department are met.

	Meet All Criteria	Do NOT Meet All Criteria
Aerospace Engineering	AE	Pre-AE
Civil Engineering	CE	Pre-CE
Computer Science and Engineering	CSE	Pre-CSE
Electrical Engineering	EE	Pre-EE
Industrial Engineering	IE	Pre-IE
Mechanical Engineering	ME	Pre-ME
Computer Science	CS	Pre-CS
Software Engineering	SE	Pre-SE

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. See College of Engineering Academic Regulations and individual department program descriptions for that program's specific requirements.
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 SPCH 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 Another Institution:** To insure adequate coverage of needed material, once enrolled at U.T. Arlington as an engineering major, a student must obtain written permission from the department before enrolling in courses intended to be transferred to U.T. Arlington for credit toward a U.T. 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 U.T. Arlington. Students whose performance in the subsequent courses at U.T. Arlington is poor may be required to repeat courses taken elsewhere.

Regulations regarding work at U.T. 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 U.T. 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 be 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 language totaling not less than six semester hours credit (eight semester hours is required in the current U.T. Arlington introductory modern language 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 U.T. 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:
 - a) all courses,
 - b) all math, science, and engineering (MSE) courses, and
 - c) all courses, if any, taken in the major subject.
 (The college will use the University's current grade-repeat 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 or College of Engineering probation. The U.T. Arlington university-wide probation system is described earlier in the catalog. The college probation system is described below.
12. **College of Engineering Probation:** Students in an engineering major or pre-major will be placed on College of Engineering probation if any of the three parts of their three-calculation GPA falls below 2.0. A student's academic standing is determined as soon as grades are reported by the Registrar at the end of each period in which the student has completed 12 or more semester-hours of courses (to accommodate part-time students, this period may extend to more than a single semester or summer term).

- 13. College of Engineering Academic Suspension:** A student whose three-calculation GPA remains less than 2.0 for three consecutive periods in which 12 or more semester-hours are completed shall be suspended from the College of Engineering for a minimum period of one calendar year. No engineering courses may be taken at U.T. Arlington, or taken elsewhere for transfer to U.T. Arlington for credit toward an engineering degree, during any period of suspension from the College. At the end of that period, a student may petition the Dean of Engineering for readmission to the College.
- 14. Advancement Under Probation:** No student who is on College of Engineering or University probation shall be advanced to professional program status.

Fees

In addition to fees applicable to the entire University, each engineering course includes a \$3 College of Engineering multimedia fee. 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.

Counseling

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 U.T. 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 counseling 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.

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.

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 at U.T. Arlington 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.

Cooperative Education

The Cooperative Education Program (Coop Program) at U.T. 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 U.T. 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 Coop Program will receive cooperative education certificates and have this accomplishment entered on their transcripts. Coop Program students are expected to register each work term in an engineering course (ENGR 2100, 3100, 4100) specified by the Director of the Coop 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, 240 Nedderman Hall.

The Department of Civil and Environmental Engineering

417 Nedderman Hall • Box 19308 • 817-272-2201 • www-ce.uta.edu

Requirements for a Bachelor of Science Degree in Civil Engineering

Pre-Professional Courses

(All pre-professional courses must be completed before enrolling in professional program courses.)

English

1301, 1302.

Mathematics

1426*, 2325, 2326, 3319.

Science

CHEM 1301, 1302, 1284, PHYS 1443, 1444.

Design Graphics

DG 1350.

Civil Engineering

1348, 2312, 2331, 3301 (or IE 3301), 3311.

Electrical Engineering

2320

Industrial Engineering

3312.

Mechanical/Aerospace Engineering

3309.

Other General Education Courses

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. For civil engineering majors SPCH 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

3261, 3301, 3302, 3305, 3334, 3341, 3343, 4331, 4347, 4352, 4383, three hours of CE laboratory electives selected from 3131, 3142, 3143, or 3161, and 12 hours of senior technical electives. Three hours of CE technical electives must be in Structural Engineering. Nine hours of CE technical electives to be selected from

three of the following five areas: Environmental, Geotechnical, Transportation, Water Resources or Infrastructure, with no more than three hours in the same area. Semester schedule for offering each course is available from the CEE Advising Office.

Environmental	4350, 4356, 4357
Geotechnical	4300, 4321
Transportation	4311, 4312, 4313
Water Resources	4358, 4359
Structures	4300, 4324, 4348
Infrastructure	4332

Total (BSCE degree)***

130 hours minimum, plus exercise and sports activities (EXSA/DNCA) or ROTC or marching band as required. (More hours may be required to strengthen student's program or demonstrate proficiency. See Prior Preparation and Course Requirements.)

* The Mathematics Department requires concurrent enrollment in MATH 1325, unless the student has received credit for Analytic Geometry or has passed the appropriate placement test provided by that department.

** 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 language courses in addition to the previously listed requirements.

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 and Environmental Engineering.

Freshman Year

First Semester: MATH 1426; PHYS 1443; DG 1350; ENGL 1301; HIST 1311—Total Credit 17 hours.

Second Semester: CE 1348; MATH 2325; PHYS 1444; CHEM 1301; ENGL 1302—Total Credit 16 hours.

Sophomore Year

First Semester: MATH 2326; CE 2312; CE 2331; CHEM 1284, 1302; HIST 1312—Total Credit 17 hours.

Second Semester: MATH 3319; CE 3311; MAE 3309; EE 2320; POLS 2311; SPCH 3302—Total Credit 18 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 and Environmental Engineering.

Junior Year

First Semester: CE 3301 (or IE 3301); CE 3305; CE 3341; CE 3343; CE 3261; CE Lab Electives, 2 hours—Total Credit 16 hours.

Second Semester: IE 3312; CE 3334; CE 3302; Social/Cultural Studies Elective; CE 4348; CE Lab Elective, 1 hour; Literature Elective, 3 hours—Total Credit 16 hours.

Senior Year

First Semester: CE 4331; CE 4347; CE 4352; CE Technical Electives, 6 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.

Frequency of Civil Engineering Course Offerings

CE 2312 and CE 3311 are offered in the fall, spring and summer; CE 1348 and CE 2331 are offered in the fall and spring; and CE 3301 is offered in the fall only. **All CE professional program courses are generally offered only in the semester listed.**

The University requires each student to complete four hours in Exercise and Sports Activities (EXSA/DNCA) or ROTC or marching band. Students should schedule these courses during a semester they believe to be most appropriate.

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.

All entering students majoring in Civil Engineering are admitted as Pre-CE or CE pre-professional majors, permitting the student to enroll only in pre-professional courses. Students completing the Pre-Professional Course Sequence (first two years of the degree program) must meet the academic requirements specified by the College of Engineering and the department prior to requesting permission for admission to the Professional Program. The Civil and Environmental Engineering Department requires a 2.0 overall grade point average on a 4.0 scale, a 2.0 average in the required engineering, science and math courses, and a 2.0 in CE courses. Application for admission to the Professional Program is made to the Department of Civil and Environmental Engineering. Appropriate forms may be obtained from the departmental office.

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.

Program of Study Leading to Master's Degree

Problems of increasing complexity in the modern technological world are challenging the engineering profession. More and more students are extending their education beyond the undergraduate degree to develop the qualifications required to assimilate and apply rapidly changing technology to the needs of a changing modern so-

ciety in the 21st century. In many areas of civil engineering, the master's degree is essential for the modern practice of engineering.

A recommended five-year plan of study leading to the master's degree at the end of the fifth year of study is available in the departmental advising office. Academically strong and well-motivated students should explore the possibility of continuing their education by pursuing a master's degree in one of the areas of concentration within civil engineering. The departmental graduate advisor is available to discuss options available to the student.

Academic Requirements

Academic performance requirements establishing satisfactory progress and grade point requirements are given in the College of Engineering section of this catalog.

Departmental Policy**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 are entirely 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.

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 the departmental undergraduate transfer advisor prior to registration.**

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 and Environmental Engineering after admission and prior to registration.

Prior to advising, a transfer student must present to the Undergraduate Advisor a transcript (official 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 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. Transfer credit that constitutes a part of a continuing sequence in the same field will be validated only upon satisfactory completion of the following courses in the sequence at The University of Texas at Arlington. **Junior and senior level courses taken at a college or university which does not have a civil engineering program accredited by ABET cannot be used to satisfy the requirements for a degree in civil engineering.**

A student who has been admitted to The University of Texas at Arlington and has enrolled in the Department of Civil and Environmental Engineering cannot enroll in courses at another college or university and take courses for transfer credit toward a degree in civil engineering. In some instances, a student may obtain prior written permission from the Chair of the Department of Civil and Environmental Engineering.

Repeating Courses

Civil Engineering majors (Pre-CE 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.

Competence in Oral Communication and Computer Use

Completion of SPCH 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 SPCH 3302 meets the University's oral communication requirement.

All civil engineering students are required to complete CE 1348, Civil Engineering Practice, with a grade of C or better. Successful completion of the course satisfies the University's computer literacy requirement.

Department of Civil and Environmental Engineering Faculty

Chair

Professor Ardekani

Professors

Huang, Matthys, Nedderman,
Parker, Qasim, Williams, Yuan

Associate Professors

Crosby, Kruzic, Puppala, Spindler

Assistant Professor

Hoyos

Senior Lecturer

Govind

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: space vehicles, launch facilities, offshore structures, bridges, tunnels, transportation systems, dams, airports, water treatment and distribution, buildings, skyscrapers, foundations, hazardous waste treatment, environmental remediation, environmental protection, and pollution control.

Civil engineering graduates are prepared for a wide range of career paths such as environmental; transportation systems; or the synthesis, planning, design, and construction of facilities essential for modern life, yet, delicately balanced with the natural environment. Or, they 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 U.T. Arlington

At the undergraduate level, the department offers a Bachelor of Science in Civil Engineering. It is broad-based and 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 the Accreditation Board for Engineering Technology (ABET) accredits the undergraduate degree. ABET 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: Environmental and/or Water Resources; Geotechnical; Structures and/or Applied Mechanics; and Transportation.

Educational Objectives of the Undergraduate Program

The purpose of the Civil and Environmental Engineering (CEE) 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 CEE Department supports the University mission by offering a broad-based undergraduate education leading to a bachelor of science degree in civil engineering with emphasis on technical, professional, ethical, and societal responsibilities associated with the practice of engineering. Advanced master's and doctoral degrees are offered with emphasis on technical specialization and the advancement of new knowledge in various areas of specialization.

The overall objective of the civil engineering undergraduate program is to promote intellectual development of those interested in civil engineering and to produce graduates who possess the knowledge, tools and traits necessary for a successful career in civil engineering and for assuming a leadership role in the civil engineering profession. More specifically, the program orientation is toward meeting the following objectives:

- To provide sufficient, basic knowledge in science, mathematics, engineering science, and engineering to enable a graduate to pursue a lifelong learning experience through further personal and professional growth through self-study, continuing education, or graduate studies.
- To provide an opportunity for developing experience in the application of scientific and analytical methods to a variety of engineering-based problems using modern equipment and tools.

- To provide experiences with the use of modern laboratory equipment, tools, and computers and computer software applicable to the modern practice of civil engineering.
- To provide a civil engineering education sufficiently fundamental and diverse to assure graduates will have the ability to learn and adapt to new technologies.
- To prepare graduates for additional in-depth study in an area of specialization within civil engineering.
- To provide an opportunity for the development of teamwork and leadership skills by working cooperatively with others on laboratory and design projects.
- To provide an understanding of global problems, standards and economics, and the impact of engineering solutions.
- To develop the written and oral communication skills necessary for the effective articulation of technical and social concerns.
- To develop an understanding and commitment to standards of conduct that assure the best interest of the public is served.
- To develop an understanding of practice issues and professional responsibilities; and to promote professionalism and professional registration by encouraging students to take the Fundamentals of Engineering examination.

The Department of Civil and Environmental 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 (CE)

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.

1348. CIVIL ENGINEERING PRACTICE (2-3) 3 hours credit. Students examine civil engineering projects, beginning with planning and design and continuing through construction and maintenance. Oral and written presentations are required. General and technical computer applications are used as problem solving tools. Applications include word processors, spreadsheet analysis, CAD/CAE, use of e-mail, and computer-based searches (Internet and library). Engineering ethics, professionalism, and civil engineering legacy are also covered. Prerequisites: MATH 1426 and DG 1350 or concurrent registration in both.

2191, 2291, 2391. PROBLEMS IN CIVIL ENGINEERING (Variable credit from 1 to 3 semester hours as arranged, individual instruction). 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. Prerequisites: permission of the chair of the department and sophomore classification in civil engineering.

2300. SELECTED TOPICS IN CIVIL ENGINEERING (3-0) 3 hours credit. 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 the topic changes. Prerequisite: sophomore standing and consent of instructor.

2312. STATICS AND DYNAMICS (3-0) 3 hours credit. 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, two-dimensional motion of rigid bodies. Prerequisites: PHYS 1443 and MATH 1426.

2331. SURVEYING (2-3) 3 hours credit. Principles and theories of physical measurements of spatial quantities; theory of errors and error adjustment techniques; the use of surveying instruments; introduction to engineering design and completion of a small design project. Prerequisite: CE 1348 or concurrent registration therein.

3131. WATER QUALITY ANALYSES (0-3) 1 hour credit. Laboratory examinations of water and wastewater. Water quality parameters and their significance. Sources and types of pollutants and their effects, and water quality standards. Prerequisites: CHEM 1302, 1284; CE 3334 or concurrent registration therein.

3142. APPLIED FLUID MECHANICS LAB (0-3) 1 hour credit. Fluid flow measurements studied by means of performed laboratory experiments and/or digital computer programming of relevant equations. Prerequisite: CE 3305.

3143. PROPERTIES AND BEHAVIOR OF SOILS (0-3) 1 hour credit. 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: CE 3343 or concurrent registration therein.

3161. ENGINEERING MATERIALS LABORATORY (0-3) 1 hour credit. Various properties and behavior of engineering materials are investigated by laboratory experimentation. Prerequisites: CHEM 1302, 1284; CE 3311 and CE 3261 or concurrent registration therein.

3261. PROPERTIES AND BEHAVIOR OF ENGINEERING MATERIALS (2-0) 2 hours credit. 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. Prerequisites: CHEM 1302, 1284; CE 3311 or concurrent registration therein.

3301. STOCHASTIC MODELS FOR CIVIL ENGINEERING (3-0) 3 hours credit. 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: MATH 2326 or concurrent registration therein.

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. Prerequisites: CE 2331; 3311 or concurrent registration therein; and CE 3301 or IE 3301 or concurrent registration therein.

3305. BASIC FLUID MECHANICS (3-0) 3 hours credit. 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: CE 2312 (or MAE 1312 or MAE 2322 for non-CE majors).

3311. MECHANICS OF MATERIALS I (3-0) 3 hours credit. Relationship between stresses and strains in elastic bodies and 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. Prerequisite: CE 2312 (or MAE 1312 or MAE 2322 for non-CE majors).

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. Prerequisites: CHEM 1302, 1284; CE 3305 or consent of instructor.

3341. STRUCTURAL ANALYSIS (3-0) 3 hours credit. Analysis of statically determinate structures including beams, trusses, frames, and three-hinged arches. Influence lines, moving loads and Maxwell's law of reciprocal displacement. Methods to compute deflections including double integration, moment area, virtual work, and conjugate beam. Methods of analysis for statically indeterminate structures including consistent deformation, slope deflection and moment distribution. Prerequisite: CE 3311.

3343. SOIL MECHANICS (3-0) 3 hours credit. 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: CE 3311.

4191, 4291, 4391. ADVANCED PROBLEMS IN CIVIL ENGINEERING (Variable credit from 1 to 3 semester hours as arranged, individual instruction). 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. Prerequisites: permission of the chair of the department and senior classification in civil engineering.

4300. ADVANCED TOPICS IN CIVIL ENGINEERING (3-0) 3 hours credit. 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.

4311. URBAN TRANSPORTATION INFRASTRUCTURE PLANNING (3-0) 3 hours credit. Urban transportation system design, planning, transportation modeling, economic theory, travel demand and travel estimation techniques. Prerequisite: CE 3302.

4312. STREET AND HIGHWAY DESIGN (3-0) 3 hours credit. The planning and geometric design concepts necessary for city streets and highways. The customary surveys and plan preparations along with a review of drainage practices, right-of-way considerations, and road construction materials. Design and construction methods for both flexible and rigid pavements. Prerequisite: CE 3302 or concurrent registration therein.

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.

4321. FOUNDATION ENGINEERING (3-0) 3 hours credit. 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. Prerequisites: CE 3343 and 3341.

4324. MECHANICS OF MATERIALS II (3-0) 3 hours credit. A continuation of CE 3311. Analysis of stresses due to various loading conditions, stresses, and strains at a point, stress-strain relationships, theo-

ries of failure, energy methods, shear center, unsymmetrical bending, curved beams, torsion, and buckling problems. Prerequisite: CE 3311.

4331. WATER RESOURCES AND CONVEYANCE SYSTEMS (3-0) 3 hours credit. Elements of meteorology, stream flow, unit hydrograph, ground water resources, frequency and duration studies, analysis and design of water conveyance systems, sanitary and storm sewers, and water distribution. Prerequisites: CE 3305; and CE 3301 or IE 3301 or concurrent registration therein.

4332. CONSTRUCTION METHODS AND MANAGEMENT (3-0) 3 hours credit. Methods, equipment, and management techniques used by the construction industry. Building and highway heavy construction methods, equipment operating characteristics, safety, and the management of construction operations. Prerequisite: senior classification.

4347. REINFORCED CONCRETE DESIGN (3-0) 3 hours credit. An analysis, design-synthesis course for concrete structures, emphasizing elastic analysis and ultimate strength design. Topics include strength and serviceability requirements, design of slabs, beams, columns, and foundations for strength for flexure, shear, and bearing. Prerequisite: CE 3341.

4348. STRUCTURAL DESIGN IN METALS (3-0) 3 hours credit. A design synthesis course for metal structures emphasizing elastic methods. Topics include tension members, compression members, flexural members and connections. The concept of plastic behavior is introduced. Building codes and related documents. Prerequisite: CE 3341.

4350. AIR POLLUTION CONTROL ENGINEERING (3-0) 3 hours credit. Fundamentals of air pollution control technology; impact of federal and state legislation on the construction, modification, and control of industrial plants is reviewed. Air pollutants, their sources and health effects, and air quality standards. Hazardous air pollutants, modifications to ambient air quality due to meteorological conditions, and basic air pollution dispersion modeling. Prerequisites: CE 2312 and senior standing in engineering.

4352. PROFESSIONAL PRACTICE (2-3) 3 hours credit. Professional practice issues in the private and public sector are addressed by visiting practitioners. Among the topics are project management, teamwork, obtaining work, regulatory requirements, licensure, lifelong learning, ethical and legal issues, and professionalism and engineering practice organizations. Learning principles of engineering practice by working as a team is emphasized. Oral and written presentations are required. Prerequisites: IE 3312; SPCH 3302; completion of four of the following courses with concurrent enrollment in the two remaining (CE 3261, CE 3302, CE 3305, CE 3334, CE 3341 and CE 3343); and completion of one of the following CE lab courses (CE 3131, CE 3142, CE 3143 and CE 3161).

4356. DESIGN OF MUNICIPAL WATER SUPPLY SYSTEMS (3-0) 3 hours credit. Sources of water supply, water demand, treatment processes, and combinations. Design of intake, raw water pumps, design of treatment facilities, and distribution system. Prerequisite: CE 3334.

4357. DESIGN OF MUNICIPAL WASTEWATER TREATMENT SYSTEMS (3-0) 3 hours credit. Characteristics of municipal wastewater, design of sanitary and storm sewers, pumping stations, and wastewater treatment processes. Process train and treatment plant layout, hydraulic profile, instrumentation and controls, and upgrading of secondary treatment plants. Prerequisite: CE 3334.

4358. OPEN CONDUIT SYSTEM (3-0) 3 hours credit. Non-pressure conduit and channel flow, surface profiles, steady and gradually varied flow, hydraulic jumps, and specific energy. Prerequisite: CE 3305.

4359. WATER RESOURCES DESIGN (3-0) 3 hours credit. Infrastructure water distribution and drainage design including urban, roadway, airport, and agriculture systems. Topics include but not limited to detention and retention storage, soil loss, inlet outlet structures, culverts, measurement systems, pump stations and related profiles. Prerequisite: CE 4331 or consent of instructor.

4383. SENIOR PROJECT (2-3) 3 hours credit. Planning, analysis, and design of selected projects that cross various civil engineering disciplines. Application of computer-aided engineering in analysis and design. Final oral and written reports that present the pros and cons of alternative solutions are required. A team approach is emphasized. Prerequisite: completion of all required CE courses and a minimum of one CE technical elective.

The Department of Computer Science and Engineering

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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 Science and Engineering, and the Bachelor of Science in Software Engineering.

Bachelor of Science in Computer Science (BSCS)

The BSCS program has been formulated to prepare graduates for a career in the field of computer science by offering a curriculum based on principles of mathematics, basic sciences, computer sciences, software design, and professional ethics. The curriculum stresses the application of computers and software systems to the solution of problems relevant to societal and economic needs and prepares graduates to work and live in a global, diversified society. In addition, the curriculum has been designed to meet the needs of industry for computer scientists whose educational experiences span the spectrum from software theory to software practice and to prepare students to pursue graduate studies in computer science or closely related fields if they choose.

Bachelor of Science in Computer Science and Engineering (BSCSE)

The BSCSE program has been formulated to prepare graduates for a career in the field of computer science and engineering by offering a curriculum based on principles of mathematics, basic sciences, computer sciences, engineering sciences, engineering design, and professional ethics. The curriculum stresses the application of computers and computer-based systems to the solution of problems relevant to societal and economic needs and prepares graduates to work and live in a global, diversified society. In addition, the curriculum has been designed to meet the needs of industry for computer engineers whose educational experiences span the spectrum from hardware to software and to prepare students to pursue graduate studies in computer science and engineering or closely related fields if they choose.

Bachelor of Science Degree in Software Engineering (BSSE)

The BSSE program has been formulated to prepare graduates for a career in the field of software engineering by offering a curriculum based on principles of mathematics, basic sciences, computer sciences, software engineering and professional ethics. The curriculum stresses the application of computers and software systems to the solution of problems relevant to societal and economic needs and prepares graduates to work and live in a global, diversified society. In addition,

the curriculum has been designed to meet the needs of industry for software engineers whose educational experiences span the spectrum from software theory to software practice and to prepare students to pursue graduate studies in software engineering or closely related fields if they choose.

In all three programs of study, design experiences are integrated 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.

Admission Requirements

Requirements for admission as a CS, CSE or SE pre-major or major are governed by the requirements stated under the College of Engineering section of this catalog. CS, CSE 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 science and 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) all CSE courses attempted. 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, BSCSE 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 or C++.

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 U.T. Arlington and passed with a C or better grade. Students not passing the readiness examination after three attempts must take the prerequisite course. A readiness examination may be taken only once per semester. Additional information is available in the departmental office.

CSE 1320: Intermediate Programming

CSE 1325: Advanced Object-Oriented Programming Using C++

Student Advising

CS, CSE 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), the Computer Science Accreditation Board (CSAB), 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, CSE or SE program, cannot enroll in courses at another college or university and transfer those courses for credit toward a CS, CSE 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 Coop programs are arrangements where students interleave 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, Coop students gain valuable career related experience before graduating, while earning a meaningful income. Cooperative education opportunities are plentiful for CS, CSE and SE students. A suggested course sequence for Coop students is available in the department office.

Honors Programs

The Computer Science and Engineering Department encourages qualified CS, CSE and SE majors to participate in the Honors College described elsewhere in this catalog. Honors students take

the honors project sequence (CSE 4356 and 4357) in place of the senior design project. Projects may be pursued in any one of the areas of concentration within the Department of Computer Science and Engineering. All full-time CS, CSE and SE students entering the university Honors College will be considered for financial assistance.

Master's Degree Path

Computer science and engineering is a rapidly changing field that requires professionals to continually update their knowledge and skills. Completing a master's 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. Also, students whose career goals are research and development or university teaching are encouraged to obtain a master's in route to the Ph.D. degree. Pursuing a master's degree on a full-time basis immediately after completing the baccalaureate is an attractive option for many students.

CS, CSE and SE honors students may structure their degree plans so that they can complete a master's degree with one year of additional study. Those graduating with a 3.00 or higher GPA will be admitted to the department's master's program upon application. Honors graduates enrolling in the department's master of science program on a full-time basis will be given an assistantship.

Oral Communication and Computer Competency Requirement

CS, CSE and SE students will satisfy the oral competency requirement by completing Professional and Technical Communications (SPCH 3302). They will satisfy the computer use competency requirement by completing Introduction to Computer Science and Engineering (CSE 1111).

Requirements for a Bachelor of Science Degree in Computer Science

Pre-Professional Courses

(All pre-professional courses must be completed before enrolling in professional courses)

English

ENGL 1301 and 1302.

Mathematics

MATH 1426, 2325 and 2326.

Natural Science

PHYS 1443 and 1444.

Computer Science and Engineering

CSE 1111, 1320, 1325, 2312, 2315, 2320 and 2340 (or 2441).

General Education Courses

Literature

Three hours of literature (English or modern language) or approved substitute.

Liberal Arts

SPCH 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, 3320, 3322, 3330, 4326 and 4327.

Industrial Engineering

IE 3301 (or MATH 3313), and IE 3312.

Mathematics

MATH 3330 and 3 hours of an approved math elective.*

Science

Six hours of approved science electives.*

Technical Electives

15 hours of approved technical electives.*

Pre-Professional Total

43 hours.

General Education Total

24 hours.

Professional Total

57 hours.

Total (for degree)**

124 hours, plus exercise and sport activities (EXSA/DNCA), ROTC, or marching band, and modern language 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 Foreign Language Requirement.

Suggested Course Sequence

Freshman Year

First Semester: CSE 1111, 1320; ENGL 1301; MATH 1426; HIST 1311; EXSA or ROTC or Marching Band—Total Credit 15 hours.

Second Semester: CSE 1325; ENGL 1302; MATH 2325; PHYS 1443; HIST 1312; EXSA or ROTC or Marching Band—Total Credit 17 hours.

Sophomore Year

First Semester: CSE 2315, 2312; MATH 2326; PHYS 1444; POLS 2311; EXSA or ROTC or Marching Band—Total Credit 17 hours.

Second Semester: CSE 2320, 2340; IE 3301; MATH 3330; POLS 2312; EXSA or ROTC—Total Credit 16 hours.

Upon completion of the 43 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) all CSE courses attempted. 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, 3322; IE 3312; SPCH 3302; Science elective, 3 hours—Total Credit 18 hours.

Second Semester: CSE 3302, 3320, 3330; Science elective, 3 hours; Literature elective, 3 hours—Total Credit 15 hours.

Senior Year

First Semester: CSE 4326; Technical electives, 6 hours; Math elective, 3 hours; Social/Cultural elective, 3 hours—Total Credit 15 hours.

Second Semester: CSE 4327; Technical electives, 9 hours; Fine Arts elective, 3 hours—Total Credit 15 hours.

Requirements for a Bachelor of Science Degree in Computer Science and Engineering

Pre-Professional Courses

(All pre-professional courses must be completed before enrolling in professional courses)

English

ENGL 1301 and 1302.

Mathematics

MATH 1426, 2325 and 2326.

Natural Science

CHEM 1301, PHYS 1443 and 1444.

Computer Science and Engineering

CSE 1111, 1320, 1325, 2312, 2315, 2320 and 2441.

Electrical Engineering

EE 2440.

Other General Education Courses

Literature

Three hours of literature (English or modern language) or approved substitute.

Liberal Arts

SPCH 3302.

Fine Arts

Three hours or 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, 3320, 3322, 3330, 3442, 4316 and 4317.

Industrial Engineering

IE 3301 and 3312.

Mathematics

MATH 3319.

Mathematics/Science

Three hours of an approved mathematics or science elective.*

Technical Electives

12 hours of approved technical electives.*

Pre-Professional Total

51 hours.

General Education Total

24 hours.

Professional Total

52 hours.

Total (for degree)**

127 hours, plus exercise and sport activities (EXSA/DNCA), ROTC, or marching band, and modern language 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 Foreign Language Requirement.

Suggested Course Sequence**Freshman Year**

First Semester: CSE 1111, 1320; CHEM 1301, ENGL 1301; MATH 1426; HIST 1311; EXSA or ROTC or Marching Band—Total Credit 18 hours.

Second Semester: CSE 1325; ENGL 1302; MATH 2325; PHYS 1443; HIST 1312; EXSA or ROTC or Marching Band—Total Credit 17 hours.

Sophomore Year

First Semester: CSE 2315, EE 2440; MATH 2326; PHYS 1444; POLS 2311; EXSA or ROTC or Marching Band—Total Credit 18 hours.

Second Semester: CSE 2312, 2320, 2441; IE 3301; POLS 2312; EXSA or ROTC—Total Credit 17 hours.

Upon completion of the 51 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) all CSE courses attempted. 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 3315, 3320, 3322; IE 3312; SPCH 3302—Total Credit 15 hours.

Second Semester: CSE 3302, 3310, 3330, 3442; Literature elective, 3 hours—Total Credit 16 hours.

Senior Year

First Semester: CSE 4316; Technical electives, 6 hours; MATH 3319; Social/Cultural elective, 3 hours—Total Credit 15 hours.

Second Semester: CSE 4317; Technical electives, 6 hours; Math/Science elective, 3 hours; Fine Arts elective, 3 hours—Total Credit 15 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, 2325 and 2326.

Natural Science

PHYS 1443 and 1444.

Computer Science and Engineering

CSE 1111, 1320, 1325, 2312, 2315, 2320 and 2340 (or 2441).

Other General Education Courses**Literature**

Three hours of literature (English or foreign language) or approved substitute.

Liberal Arts

SPCH 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, 3320, 3322, 3330, 4305, 4310, 4311, 4321, 4326 and 4327.

Industrial Engineering

IE 3301 (or MATH 3313), and IE 3312.

Mathematics

MATH 3319 or MATH 3330.

Mathematics/Science

Six hours of an approved mathematics or science elective.*

Technical Electives

Six hours of approved technical electives.*

Pre-Professional Total

43 hours.

General Education Total

24 hours.

Professional Total

57 hours.

Total (for degree)**

124 hours, plus exercise and sports activities (EXSA), ROTC, or marching band, and foreign language as required.

* A list of acceptable electives is available in 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: Admission to Engineering, Admission to the Professional Program, Counseling or Advising, Academic Policies and Standards, Transfer and Change of Major Policies, the College of Engineering Probation, Repeating Course Policy, or Academic Honesty Policy.

Suggested Course Sequence

Freshman Year

First Semester: CSE 1111, 1320; ENGL 1301; MATH 1426; HIST 1311; EXSA or ROTC or Marching Band—Total Credit 15 hours.
Second Semester: CSE 1325; ENGL 1302; MATH 2325; PHYS 1443; HIST 1312; EXSA or ROTC or Marching Band—Total Credit 17 hours.

Sophomore Year

First Semester: CSE 2315, 2312; MATH 2326; PHYS 1444; POLS 2311; EXSA or ROTC or Marching Band—Total Credit 17 hours.
Second Semester: CSE 2320, 2340; IE 3301; MATH 3319; POLS 2312; EXSA or ROTC or Marching Band—Total Credit 16 hours.

Upon completion of the 43 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) all CSE courses attempted. 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, 3322; IE 3312; SPCH 3302; Math/Science elective, 3 hours—Total Credit 18 hours.
Second Semester: CSE 3302, 3320, 4311, 4321; Literature elective, 3 hours—Total Credit 15 hours.

Senior Year

First Semester: CSE 3330, 4305, 4310, 4326; Social/Cultural elective, 3 hours—Total Credit 15 hours.
Second Semester: CSE 4327; Technical Electives, 6 hours; Math/Science elective, 3 hours; Fine Arts elective, 3 hours—Total Credit 15 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.

Department of Computer Science and Engineering Faculty

Chair

Professor Shirazi

Professors

Carroll, Chakravarthy, Cook, Das, Elmasri, Kung, Patterson, Peterson, Walker

Associate Professors

Gmytrasiewicz, Holder, Kamangar, Kumar, Weems, Youn

Assistant Professors

Fegaras, Huber, Reyes, Yerraballi

Senior Lecturers

Barasch, Umbaugh

Computer Science and Engineering (CSE)

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

1111. INTRODUCTION TO COMPUTER SCIENCE AND ENGINEERING (1-0) 1 hour credit. Topics include problem solving, ethics, and contemporary issues in computer science and engineering. Students will demonstrate competence in word processing, spreadsheets, research and library skills. Emphasis is placed on team building, oral and written communication skills. Primarily for students pursuing a degree in the Computer Science and Engineering Department.

1301. COMPUTER LITERACY (2-3) 3 hours credit (COSC 1300). 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; applications of commercial software such as word processors, spreadsheets, database packages, and communications packages.

1306. COMPUTER PROGRAMMING AND APPLICATIONS (3-0) 3 hours credit (COSC 1311). Computing techniques utilizing the FORTRAN language. Algorithm design in the solution of engineering and scientific problems. Prerequisite: high school trigonometry.

1310. INTRODUCTION TO COMPUTERS AND PROGRAMMING (2-3) 3 hours credit (COSC 1312). An introduction to the computer, to the algorithmic process, and to programming in C using standard control structures. Windows and UNIX operating systems are used. Prerequisite: precalculus.

1312. WEB DEVELOPMENT (3-0) 3 hours credit. Introduction to various elements of Web development, including layout design considerations, naming schemes, hypertext document creation, the HTTP protocol, graphic images, Uniform Resource Locators, Web security, and ethical considerations. Students successfully completing this course will be able to create and maintain their own Web site.

1320. INTERMEDIATE PROGRAMMING (2-3) 3 hours credit. Programming concepts beyond standard control structures in C/C++. Emphasis is given to data structures and modular design consistent with software engineering principles. Windows and UNIX operating systems are used. Prerequisite: CSE 1111 (or concurrently) and CSE 1310; or EE 1347.

1325. ADVANCED OBJECT-ORIENTED PROGRAMMING USING C++ (3-0) 3 hours credit. Advanced program design and implementation in the C++ programming language. Object-oriented programming with concepts including class structure and behavior, objects, inheritance and reuse, virtual functions and polymorphism, exception handling, templates, and the Standard Template Library. Windows and UNIX operating systems are used. Prerequisite: CSE 1320.

2312. COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE PROGRAMMING (3-0) 3 hours credit. 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.

2315. DISCRETE STRUCTURES (3-0) 3 hours credit. Propositional logic, mathematical proof techniques, sets, combinatorics, functions and relations, graphs, and graph algorithms. Prerequisites: CSE 1320 and MATH 1426.

2320. ALGORITHMS AND DATA STRUCTURES (3-0) 3 hours credit. 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. Prerequisites: CSE 2315.

2340. INTRODUCTION TO DIGITAL LOGIC (3-0) 3 hours credit. The analysis and design 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. Prerequisites: CSE 2312 (or concurrently) and CSE 2315.

2441. DIGITAL LOGIC CIRCUITS (3-3) 4 hours credit. The analysis and design 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. Prerequisites: CSE 2312 (or concurrently), CSE 2315, and EE 2440.

3302. PROGRAMMING LANGUAGES (3-0) 3 hours credit. 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 3315.

3310. FUNDAMENTALS OF SOFTWARE ENGINEERING (3-0) 3 hours credit. 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. Prerequisites: CSE 1325 and CSE 2320.

3315. THEORETICAL CONCEPTS IN COMPUTER SCIENCE AND ENGINEERING (3-0) 3 hours credit. Selected theoretical concepts including predicate logic, automata and formal languages, computability, proof of program correctness and complexity. Prerequisite: CSE 2315.

3320. OPERATING SYSTEMS (3-0) 3 hours credit. 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. Prerequisites: CSE 2320, CSE 3322 (or concurrently), and IE 3301 or MATH 3313.

3322. COMPUTER ARCHITECTURE (3-0) 3 hours credit. Hardware and software structures found in modern digital computers. Instruction set architecture, hardwired design of the processor; microprogramming, I/O and memory units, analysis of instruction usage, and hardware complexity. Prerequisites: CSE 2340 or CSE 2441.

3330. DATABASE SYSTEMS AND FILE STRUCTURES (3-0) 3 hours credit. 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.

3442. EMBEDDED COMPUTER SYSTEMS (3-3) 4 hours credit. Design of microcomputer based systems: microcomputer programming, component and system architectures, memory interfacing, parallel and serial I/O interfacing, A/D and D/A conversion, and typical applications. Prerequisite: CSE 2441 and CSE 3320 (or concurrently).

4191, 4291, 4391. INDIVIDUAL PROJECTS (Variable credit from 1 to 3 semester hours as arranged, individual instruction). 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.

4301. CONTEMPORARY PROGRAMMING PRACTICES. (3-0) 3 hours credit. Study of emerging programming languages that have a potential for widespread application. A significant design project in each language is required. Prerequisite: CSE 3310.

4303. COMPUTER GRAPHICS (3-0) 3 hours credit. 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. Prerequisites: CSE 2320, and MATH 3319 or MATH 3330.

4305. COMPILERS FOR ALGORITHMIC LANGUAGES (3-0) 3 hours credit. Review of programming language structures, trans-

lation, 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. Prerequisites: CSE 3302.

4308. ARTIFICIAL INTELLIGENCE (3-0) 3 hours credit. 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.

4310. SOFTWARE ENGINEERING PROCESSES (3-0) 3 hours credit. Introduces software lifecycle models, process disciplines, project management concepts, and applies them by mastering the Personal Software Process (PSP). Prerequisites: CSE 3310, and IE 3301 or MATH 3313.

4311. OBJECT-ORIENTED SOFTWARE ENGINEERING (3-0) 3 hours credit. General classification and comparison of structured, object-oriented software development including analysis, design, programming, and testing. Team project. Prerequisites: CSE 3310 and CSE 3315.

4312. FORMAL METHODS IN SOFTWARE ENGINEERING (3-0) 3 hours credit. Study of mathematical models as applied to software requirements specification, software design, verification and validation, program correctness proof, software testing and software maintenance. Prerequisite: CSE 4311.

4313. INTRODUCTION TO SIGNAL PROCESSING (3-0) 3 hours credit. 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. Prerequisites: MATH 2325 and senior standing.

4316. COMPUTER SYSTEM DESIGN PROJECT I (2-3) 3 hours credit. The industrial environment and the phased system development process as applied to computer hardware and software design projects. Teams of students prepare and present planning and definition documentation for a design project to be rapid-prototyped, and then completed in CSE 4317 the following semester. Prerequisites: CSE 3310, CSE 3322, and CSE 3442; IE 3312; and SPCH 3302.

4317. COMPUTER SYSTEM DESIGN PROJECT II (2-3) 3 hours credit. Social and ethical implications of computing and the engineering profession; student design teams complete the projects initiated in CSE 4316. Oral presentations and documentation required at review points and project completion. Prerequisite: CSE 4316 in the previous semester.

4319. MODELING AND SIMULATION (3-0) 3 hours credit. Techniques for system modeling and simulation of stochastic and knowledge-based systems. Modeling methods, model validation and verification procedures, and steady state solution techniques. Prerequisites: CSE 3310 and IE 3301.

4320. FUNDAMENTALS OF TELECOMMUNICATIONS SOFTWARE DEVELOPMENT (2-3) 3 hours credit. General understanding and classification of telecommunications systems and applications. Issues relating to the analysis, design, implementation, and testing of telecommunications software. Interface to hardware. A team project is required. Prerequisites: CSE 3310 and CSE 3320, or EE 3310 and EE 4330.

4321. SOFTWARE TESTING (3-0) 3 hours credit. Introduction to software quality assurance, study of software testing process, methods,

techniques, and tools. Topics include formal review techniques, verification and validation, black box testing, white box testing, integration testing, regression testing, performance testing, stress testings and testing of object-oriented software. Prerequisite: CSE 3310.

4322. SOFTWARE PROJECT MANAGEMENT (3-0) 3 hours credit. 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.

4323. COMPUTER ARCHITECTURE II (3-0) 3 hours credit. Pipelined control and ALU designs, parallel processor organizations including SIMD and shared memory MIMD, message passing MIMD, dataflow processing, cache memory design, and processor-memory interconnections. Prerequisite: CSE 3322.

4326. SOFTWARE SYSTEM DESIGN PROJECT I (2-3) 3 hours credit. Apply the knowledge and skills gained in previous courses to synthesize a solution to a significant and realistic problem. Participate in team project activities, including: problem analysis, software requirements specification, software project planning, and software design. Software design documentation and oral presentation are an integral part of the course. Prerequisites: CSE 3310, CSE 3320, IE 3312, and SPCH 3302.

4327. SOFTWARE SYSTEM DESIGN PROJECT II (2-3) 3 hours credit. A continuation of CSE 4326. Team project activities include: software design reviews, implementation, software quality assurance, software testing, integration, project documentation, presentations and demonstration. Also covers social and ethical implications of the computing profession. Prerequisite: CSE 4326 in the previous semester.

4331. DATABASE IMPLEMENTATION AND THEORY (3-0) 3 hours credit. 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.

4342. REAL-TIME DATA ACQUISITION AND CONTROL SYSTEMS (2-3) 3 hours credit. Advanced course in design of micro-computer-based systems. Emphasis is on the application of state-of-the-art microprocessors, microcomputers, and other LSI and VLSI components to real-time, interactive, and online problems. Prerequisite: CSE 3442.

4344. COMPUTER NETWORK ORGANIZATION (3-0) 3 hours credit. 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.

4346. ADVANCED COMPUTER NETWORKS (3-0) 3 hours credit. 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.

4348. MULTIMEDIA SYSTEMS (3-0) 3 hours credit. 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.

4351. PARALLEL PROCESSING (3-0) 3 hours credit. 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 or more parallel computers. Prerequisites: CSE 3302 and CSE 3322, or consent of instructor.

4353. DISTRIBUTED COMPUTING (3-0) 3 hours credit. Theory and practice of distributed computing. Topics include parallel versus distributed processing, message passing systems, shared memory, distributed objects, processing and coordination, the World Wide Web, broadcast and mobile computing. Prerequisite: CSE 3320.

4356. HONORS PROJECT I (2-3) 3 hours credit. An engineering research experience at an advanced undergraduate level. Students will survey a selected topic in the computer science and engineering literature and design an honors project under the guidance of a faculty member. Formal written and oral presentation of the project proposal is required. In weekly meetings students will discuss their designs. Credit will be given for only one of CSE 4316, CSE 4326 and CSE 4356. Prerequisite: consent of instructor and department chairperson.

4357. HONORS PROJECT II (2-3) 3 hours credit. Social and ethical implications of computing and the engineering profession are stressed

while students perform the tasks identified in their proposals in CSE 4356, such as: evaluate design trade-offs, implementation, testing and experimentation. Formal written and oral presentation of the research is required. In weekly meetings students will evaluate their progress and discuss their findings. Prerequisite: CSE 4356.

4360. AUTONOMOUS ROBOT DESIGN AND PROGRAMMING (2-3) 3 hours credit. 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. Prerequisites: CSE 2320 and CSE 3320.

4361. SOFTWARE DESIGN PATTERNS (3-0) 3 hours credit. Introduction to and applications of object-oriented software design patterns, including the GRASP and Gang of Four design patterns, to software development in the object-oriented paradigm. Prerequisite: CSE 4311.

4392. SPECIAL TOPICS (3-0) 3 hours credit. 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.

The Department of Electrical Engineering

517 Nedderman Hall • Box 19016 • 817-272-2671 • www-ee.uta.edu
501 Nedderman Hall • Student Advising Office • eeadvise@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, 2325, 2326, 3319.

Science

CHEM 1301, PHYS 1443, PHYS 1444.

Engineering

CE 2312.

Computer Fundamentals and Programming

EE 1347, CSE 1320.

Electrical Engineering

1245, 2315, 2303, 2446.

General Education Courses

Literature

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

Liberal Arts Elective

For EE majors SPCH 3302 must be used to satisfy this requirement.

Fine Arts

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

Social/Cultural Studies

For EE majors ECON 2305 or BUSA 2301 must be used to satisfy this requirement.

U.S. History

1311, 1312.

U.S. Political Science

2311, 2312.

Professional Courses

Electrical Engineering

3302, 3307, 3308, 3310, 3317, 3318, 3330, 3340, 3341, 3444, 4314, 4330, two Senior Capstone Design Courses (3 hours each).

Engineering Electives**

Three hours (also includes Electrical Engineering).

Mathematics or Science Elective**

Three hours of 3000/4000 courses in Mathematics or Science.

Thermal Engineering

MAE 3309.

Total (Pre-Engineering)

51 hours.

Total (General Education)

24 hours.

Total (Upper-Division)

52 hours.

Total (for degree)***

127 hours, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

* The Mathematics Department requires concurrent enrollment in Math 1325, unless the student has credit for Analytic Geometry or has passed the appropriate placement test provided by that department.

** A list of acceptable electives is available in the EE Dept. advising 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 six hours of foreign language 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.

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 1245; MATH 1426; PHYS 1443; CHEM 1301; ENGL 1301; EXSA or ROTC or Marching Band — Total Credit 17 hours.

Second Semester: EE 1347; MATH 2325; PHYS 1444; HIST 1311; ENGL 1302; EXSA or ROTC or Marching Band — Total Credit 17 hours.

Sophomore Year

First Semester: EE 2315; MATH 2326; CE 2312; CSE 1320; HIST 1312; EXSA or ROTC or Marching Band — Total Credit 16 hours.

Second Semester: EE 2446; EE 2303; MATH 3319; BUSA 2301 or ECON 2305; SPCH 3302; EXSA or ROTC or Marching Band — Total Credit 17 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 3302; EE 3307; EE 3317; EE 3341; EE 3444 — Total Credit 16 hours.**Second Semester:** EE 3340; EE 3308; EE 3310; EE 3318; EE 3330; Math/Science Elective, 3 hours — Total Credit 18 hours.**Senior Year****First Semester:** EE 4314; EE 4330; Capstone Design EE 434X; POLS 2311; Fine Arts Elective, 3 hours — Total Credit 15 hours.**Second Semester:** Capstone Design EE 434X; MAE 3309; Engineering Elective, 3 hours; English Literature Elective, 3 hours; POLS 2312 — Total Credit 15 hours.

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; 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

The educational objectives are to:

- Produce graduates skilled in the fundamentals of electrical engineering and prepared for a lifelong professional career.
- Produce graduates who are able to apply these fundamentals to solve engineering problems.
- Produce graduates with knowledge of other key areas of practical value to electrical engineers including thermal engineering, mechanics, computer programming, and oral and written communications.

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. The EE majors are only allowed to enroll in pre-professional

courses until they meet the requirements for the professional program as outlined below.

Students admitted as Pre-EE majors are only allowed to enroll in pre-professional courses. After completion of twelve hours of required math, science or engineering courses at U.T. Arlington with a minimum GPA of 2.5 in these courses, they can apply for advancement as EE majors. Note that pre-EE majors must be admitted as EE majors before they can be advanced to the professional program. Additional information is available at www-ee.uta.edu.

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-ee.uta.edu. 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.

Program Features and Outcomes

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 capstone 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

The undergraduate program will provide a broad education so that graduates have:

- a. an ability to apply knowledge of mathematics, science, and engineering;
- b. an ability to design and construct experiments, as well as to analyze and interpret data;
- c. an ability to design systems, component, or process to meet desired needs;
- d. an ability to function on multidisciplinary teams;
- e. an ability to identify, formulate, and solve engineering problems;
- f. an understanding of professional and ethical responsibility;
- g. an ability to communicate effectively;
- h. the broad education necessary to understand the impact of engineering solutions in a global and societal context;
- i. a recognition of the need for, and the ability to engage in lifelong learning;
- j. a knowledge of contemporary issues;
- k. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

The curriculum is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

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 research topic for their MS 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 SPCH 3302, Professional and Technical Communications. They will satisfy the University Competence in Computer Use requirement by completing EE 1347, Computer Solution of Electrical Engineering Problems.

Department of Electrical Engineering Faculty

Chair

Professor Magnusson

Professors

Alavi, Bredow, Carter, Chen, Devarajan, Fitzer, Fung, Kirk, Kondraske, Lee, Lewis, Maldonado, Manry, Prabhu, Rao, Shoultz, Smith, Yeung

Associate Professors

Chwialkowski, Davis, Dillon, Hsu, Kenarangui, Tjuatja

Assistant Professor

Oraintara

Adjunct Professor

Agarwal, Bate, BuAbbud, Randall, Sobol, Svihel, Wang

Adjunct Associate Professors

Chaid, Hatcher, Hoe, Hozhabri, McCoy, Najib, Swift, Trivedi

Adjunct Assistant Professor

Wu

Electrical Engineering (EE)

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.

1245. INTRODUCTION TO ELECTRICAL ENGINEERING (1-3) 2 hours credit. Number systems, complex numbers, units and dimensions, graphing, coordinate systems, vectors, matrices, work and energy, and other essential engineering and mathematical concepts. Students will be given an opportunity to take an advanced placement examination for this course.

1347. COMPUTER SOLUTION OF ELECTRICAL ENGINEERING PROBLEMS (2-3) 3 hours credit. An introduction to the computer, to the algorithmic process, and to programming in C. Use of high-level computer software packages, including MATLAB and PSPICE to solve linear and nonlinear design problems in Electrical Engineering. Prerequisites: EE 1245, MATH 1426, MATH 2325, or concurrently.

2303. ELECTRONICS I (3-0) 3 hours credit. Characteristics and circuit models for semiconductor diodes, bipolar junction transistors (BJTs), and field-effect transistors (FETs). Circuit applications of diodes. 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. Prerequisites: EE 2315, EE 2446, or concurrently, MATH 2326.

2315. CIRCUIT ANALYSIS I (3-0) 3 hours credit. Basic circuit concepts of R, L, and C elements. 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. Prerequisites: EE 1347, MATH 2325, MATH 2326, or concurrently, PHYS 1444.

2320. CIRCUIT ANALYSIS (3-0) 3 hours credit. 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. Prerequisites: Math 2325, PHYS 1444.

2440. CIRCUIT ANALYSIS WITH LAB (3-3) 4 hours credit. 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. Prerequisites: Math 2325, PHYS 1444.

2446. CIRCUIT ANALYSIS II WITH LAB (3-3) 4 hours credit. 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 2446 lecture topics. Prerequisites: EE 2315, EE 1347, MATH 2326.

3302. FUNDAMENTALS OF POWER SYSTEMS (3-0) 3 hours credit. 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. Prerequisite: EE 2446.

3307. ELECTROMAGNETICS I (3-0) 3 hours credit. 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 law of force, Biot-Savart law, 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: EE 2446; co-requisite: MATH 3319.

3308. ELECTROMAGNETICS II (3-0) 3 hours credit. 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: EE 3307

3310. MICROPROCESSORS (3-0) 3 hours credit. Principles of operation for 80x86 family of microprocessors, including assembly language programming, internal architecture of 80x86 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. Prerequisites: EE 3341, CSE 1320.

3317. LINEAR SYSTEMS (3-0) 3 hours credit. Time-domain transient analysis, convolution, Fourier Series and Transforms, Laplace Transforms and applications, transfer functions, signal flow diagrams, Bode plots, stability criteria, and sampling. Prerequisites: EE 2446 and MATH 3319.

3318. DISCRETE SIGNALS AND SYSTEMS (3-0) 3 hours credit. 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: EE 3317.

3330. PROBABILITY AND RANDOM SIGNALS (3-0) 3 hours credit. Probability, random variables, functions of random variables, random signals, noise, response of linear systems to random inputs. Prerequisite: EE 3317.

3340. ENGINEERING PROJECT MANAGEMENT (2-3) 3 hours credit. Resource management and scheduling for engineering projects. GANNT charts and PERT charts will be introduced as project management tools. Students will create plans and proposals for capstone design projects. Oral and written presentations of project proposals will be made. Emphasis will be placed on teamwork, communication and organization. The "Fundamentals of Engineering" Exam will be reviewed for students seeking certification as an "Engineer-in-Training" (EIT) and subsequently as a "Professional Engineer" (PE). Prerequisites: SPCH 3302 and ECON 2305 or BUSA 2301.

3341. DIGITAL CIRCUITS DESIGN (2-3) 3 hours credit. Theory and design of digital logic circuits., number systems, binary arithmetic and codes. Boolean algebra minimization of logic circuits. Analysis and synthesis of combinatorial logic circuits and synchronous state machines, including use of ROM memories. Design projects will require design, fabrication, and testing of circuits using discrete and PLED components implementation. Prerequisite: EE 2303.

3444. ELECTRONICS II WITH LAB (3-3) 4 hours credit. 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 multi-stage differential and operational amplifiers. Concurrent laboratory exercises in support of the topics covered in Electronics I and II. Prerequisites: EE 2303, EE 2446, EE 3317, or concurrently.

4301. POWER SYSTEMS ANALYSIS AND CONTROL (3-0) 3 hours credit. 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: EE 3302 or consent of instructor.

4308. POWER ELECTRONICS DESIGN (3-0) 3 hours credit. Design and analysis of switched mode DC - AC converters, controlled rectifiers, commutated and resonant inverters. A hardware design project will be assigned. Prerequisite: EE 3444.

4314. CONTROL SYSTEMS (3-0) 3 hours credit. Analyses of closed loop systems using frequency response, root locus and state variable techniques. System design based on analytic and computer methods. Prerequisite: EE 3318.

4315. ROBOTICS (3-0) 3 hours credit. Principles of kinematics, dynamics, and control of industrial robots. Robot sensors and actuators. Applications in manufacturing, path planning, and programming. Prerequisite: EE 4314.

4318. DIGITAL SIGNAL PROCESSING (3-0) 3 hours credit. Discrete time convolution. Fast convolution using the FFT. Amplitude and phase of digital filters. Stability analyses using the Z-transform. Design of FIR digital filters through windowing and optimization approaches. IIR digital filter design approaches using transformation and optimization. Prerequisites: EE 3317, EE 3318.

4320. VLSI DESIGN AND TECHNOLOGY (3-0) 3 hours credit. VLSI design and fabrication technology. Device models, process models, and CAD tools for design and simulation. Prerequisite: EE 3444.

4327. THEORY AND DESIGN OF ANTENNAS (3-0) 3 hours credit. Basic theory of antennas with emphasis on design and engineering application. Prerequisite: EE 3306.

4328. CURRENT TOPICS IN ELECTRICAL ENGINEERING (3-0) 3 hours credit. 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.

4329. PHYSICAL ELECTRONICS (3-0) 3 hours credit. The physics of solids, the physical principles and circuit models of diodes, bipolar transistors, and field effect transistors, and an introduction to the technology of integrated circuits and quantum electronic devices. Prerequisite: EE 3444.

4330. FUNDAMENTALS OF TELECOMMUNICATIONS SYSTEMS (3-0) 3 hours credit. 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: EE 3330.

4331. DATA COMMUNICATIONS ENGINEERING (3-0) 3 hours credit. Data communications network planning, design, and analysis. The OSI layered model, interface standards, signals and protocols, modem and LAN standards. Prerequisite: EE 4330.

4333. MODERN TELECOMMUNICATIONS (3-0) 3 hours credit. 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 reference architecture. ISDN. Prerequisite: EE 4330.

4334. PROGRAMMABLE LOGIC DESIGN (3-0) 3 hours credit. 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: EE 3310.

4339. RADIO-FREQUENCY CIRCUIT DESIGN (3-0) 3 hours credit. Design of lumped-element radio frequency circuits operating at frequencies to 2 GHz. Impedance-matching, s -parameter design of amplifiers and oscillators RF mixers. Other topics include noise theory (thermal and phase noise) and phase-locked loops. Prerequisite: EE 3444.

4341. POWER SYSTEMS DESIGN PROJECT (2-3) 3 hours credit. This course includes open ended design studies of power systems using modern computer solution methods and/or hardware projects. Relevant design projects in the areas of generation, transmission, distribution, and industrial/commercial systems will be covered. The student must submit a proposal in response to the instructor's Request For Proposal (RFP), followed by project design, development, and presentation/demonstration. Prerequisite: EE 3302, EE 3340, and senior standing.

4342. MICROPROCESSOR SYSTEM DESIGN PROJECT (2-3) 3 hours credit. Design principles for digital and analog instrumentation utilizing open computer architectures (ISA, EISA, MicroChannel). The course is intended to provide a comprehensive design experience in microprocessor-based and microcomputer-oriented functional subsystems. Will include bus protocol analysis, timing design, simulation, prototype development, physical debugging of digital circuits, and printed circuit board design using advanced CAD/CAE tools. Special attention will be given to data acquisition techniques and to the design of computer graphics systems. Prerequisite: EE 3310, EE 3317, EE 3340 and senior standing.

4343. CONTROL SYSTEM DESIGN PROJECT (2-3) 3 hours credit. Design of continuous and digital control systems using modern analytic and computer design tools. Student teams will design specific control systems. Prerequisite: EE 3340, EE 4314 and senior standing.

4344. OPTICAL SYSTEM DESIGN PROJECT (2-3) 3 hours credit. Design projects based on the principles and techniques of optical engineering, including optical modulation, optical fibers and systems, sources and detectors, measurements, imaging, lenses, wave optics, polarization, interference, diffraction, optical Fourier transforms, holography, frequency conversion, interaction of light and matter. Prerequisites: EE 3308, EE 3340, and senior standing. PHYS 3445 or by permission of the instructor.

4345. SEMICONDUCTOR ELECTRONICS DESIGN PROJECT (2-3) 3 hours credit. Design principles for electronic circuits and systems based on semiconductor integrated circuits. Will include cell and circuit development using CAD/CAE design tools. Both physical and behavioral model design will be utilized. Integration of semiconductor electronics principles, process principles and design and simulation in the open-ended design of microelectronic circuits and systems. Prerequisites: EE 3340, EE 3444, and senior standing.

4346. ELECTRONIC SYSTEM DESIGN PROJECT (2-3) 3 hours credit. System design based on quantitative performance concepts. Design of electronic systems using discrete devices, integrated circuits (analog, digital, and hybrid), sensors, and actuators. Incorporates manufacturing, production, and cost issues. Prerequisite: EE 3340, EE 3444 and senior standing.

4347. COMMUNICATION SYSTEMS DESIGN PROJECT (2-3) 3 hours credit. Design of radio-frequency (1 MHz to 2 GHz) circuits for telecommunications applications. Design simulation and fabrication of RF amplifiers, oscillators, and heterodyne mixers. Advanced concepts involving phase-locked loops, surface-acoustic wave devices, spread-spectrum techniques, and modulation/coding techniques may be included. Prerequisites: EE 3340, EE 3444, EE 4330, and senior standing.

4348. ELECTRICAL ENGINEERING SYSTEM DESIGN PROJECT (2-3) 3 hours credit. A general design project that will integrate concepts from several areas of electrical engineering in a team approach. To be included are proposal preparation, feasibility studies, project planning and management, and design reviews. Progress and final reports and presentations will be emphasized. Topics will vary from semester to semester. May be repeated for credit as the topics change. Prerequisites: EE 3340, senior standing and consent of the department.

4391. ADVANCED PROBLEMS IN ELECTRICAL ENGINEERING (3-0, INDIVIDUAL INSTRUCTION) 3 hours credit. A research project under the direction of a faculty supervisor. May be taken as a technical elective with the permission of the department.

The Department of Industrial and Manufacturing Systems Engineering

420 Woolf Hall • Box 19017 • 817-272-3092 • <http://ie.uta.edu>

Requirements for a Bachelor of Science Degree in Industrial Engineering

Pre-Professional Courses

(All pre-professional courses must be completed before enrolling in professional courses.)

English

1301, 1302.

Mathematics

1426*, 2325, 2326, 3319

Natural Science

CHEM 1301, 1302; PHYS 1443, 1444

Design Graphics

1350

Computer Science and Engineering

1320

Industrial Engineering

1231, 3301, 3312, 3315

General Education Courses

History

1311, 1312

Political Science

2311, 2312

Literature

Three hours of English or modern language 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, SPCH 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 of designated courses 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**

Twelve hours of technical electives.

Pre-Professional Total

50 hours.

General Education Total

24 hours.

Professional Total

54 hours.

Total (for degree)***

128 hours, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

*The Mathematics Department requires concurrent enrollment in MATH 1323, unless the student has received credit for precalculus or has passed the appropriate placement test provided by that department.

** 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 four 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 language 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 Foreign Language Requirement.

The Industrial and Manufacturing Systems Engineering Department conducts an academic advising week. Each student should meet with a faculty advisor during this week. 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 1231; CHEM 1301; ENGL 1301; DG 1350; EXSA or ROTC or Marching Band—Total Credit 16 hours.

Second Semester: MATH 2325; PHYS 1443; CHEM 1302; ENGL 1302; CSE 1320; EXSA or ROTC—Total Credit 17 hours.

Sophomore Year

First Semester: MATH 2326; IE 3312; PHYS 1444; HIST 1311; POLS 2311; EXSA or ROTC or Marching Band—Total Credit 17 hours.

Second Semester: MATH 3319; IE 3301; IE 3315; HIST 1312; POLS 2312; EXSA or ROTC—Total Credit 16 hours.

Junior Year

First Semester: IE 3314; IE 3343; IE 4315; IE 4339; Fine Arts Elective, 3 hours; Technical Elective, 3 hours—Total Credit 18 hours.

Second Semester: IE 4302; IE 4303; IE 4322; IE 4344; English Literature, 3 hours; Technical Elective, 3 hours—Total Credit 18 hours.

Senior Year

First Semester: IE 4308; IE 4325; IE 4343; SPCH 3302; 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 SPCH 3302, Professional and Technical Communication, to demonstrate oral communication competency. Students majoring in Industrial Engineering are required to take IE 1231 and IE 3343. A computer competency examination will be administered in IE 1231. For transfer students and others who do not take IE 1231, the computer literacy test will be administered in IE 3343.

Department of Industrial and Manufacturing Systems Engineering Faculty

Chair

Professor Liles

Professors

Corley, Priest, Stevens

Associate Professors

Huff, Imrhan, Rogers

Assistant Professor

Boardman

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:

1. To produce graduates of high technical competence who can enter industrial engineering or other professions and make contributions that benefit society, their employers, and themselves.
2. To produce graduates who can 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.
3. To produce graduates who can analyze, design and transform the complex systems of people, processes and technology that enable the E-enterprise of the 21st century.
4. To produce graduates who continue to expand their capabilities through professional development and advanced education.

Industrial Engineering (IE)

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.

1231. INTRODUCTION TO INDUSTRIAL ENGINEERING (2-0) 2 hours credit. An introduction to basic industrial engineering concepts. Students become familiar with the IE curriculum and are introduced to the topics that they will study. The computer competency evaluation is administered in this course. Ethics, professional conduct, and the impact of engineering on society are discussed.

3301. ENGINEERING PROBABILITY (3-0) 3 hours credit. 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, and hypothesis testing. Prerequisite: MATH 2326 or concurrent enrollment.

3312. ECONOMICS FOR ENGINEERS (3-0) 3 hours credit. Methods used for determining the comparative financial desirability of engineering alternatives. Prerequisite: MATH 1426 or concurrent enrollment.

3314. ENGINEERING RESEARCH METHODS (3-0) 3 hours credit. A continuation of IE 3301. Primary emphasis on the construction of linear models of engineering data, testing hypotheses, and analyzing of variance. Prerequisite: IE 3301.

3315. OPERATIONS RESEARCH I (3-0) 3 hours credit. 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. Prerequisites: IE 3301 or concurrent enrollment and MATH 2326.

3343. METRICS AND MEASUREMENT (2-3) 3 hours credit. 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 1231. Prerequisites: MATH 2326, IE 3312 or concurrent enrollment, and IE 3301 or concurrent enrollment.

4191, 4291, 4391. SPECIAL PROBLEMS IN INDUSTRIAL ENGINEERING (Variable credit from 1 to 3 semester hours as arranged, individual instruction). The investigation of special individual problems in industrial engineering under the direction of a faculty member. Prerequisite: consent of the head of the department.

4300. TOPICS IN INDUSTRIAL ENGINEERING (3-0) 3 hours credit. A study of selected topics in industrial engineering. May be repeated when topics vary. Prerequisite: consent of instructor and undergraduate advisor.

4302. ENGINEERING ADMINISTRATION AND ORGANIZATION (3-0) 3 hours credit. 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.

4303. PRODUCTION AND INVENTORY CONTROL (3-0) 3 hours credit. 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. Prerequisites: IE 3301 and 3315.

4304. ENTERPRISE SYSTEMS (3-0) 3 hours credit. 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.

4308. QUALITY SYSTEMS (3-0) 3 hours credit. A comprehensive coverage of modern quality systems techniques to include the design of statistical process control systems, ISO 9000, quality function deployment, acceptance sampling, and process analysis and design. Prerequisite: IE 4322 or concurrent enrollment.

4310. INDUSTRIAL AND PRODUCT SAFETY (3-0) 3 hours credit. Scientific, managerial, and legal aspects of safety hazard control and elimination in the industrial workplace. Methods for enhancing product safety. Prerequisite: IE 4344.

4313. INDUSTRIAL HYGIENE ENGINEERING (3-0) 3 hours credit. Physical, physiological and psychological aspects of the interaction of workers with biological, chemical, and physical agents in the workplace. Design of work systems for control and elimination of these agents. Ethics and professional conduct are stressed. Prerequisite: IE 4344.

4315. OPERATIONS RESEARCH II (3-0) 3 hours credit. A continuation of IE 3315 to probabilistic techniques of operations research and their application to decision models. Topics include Markov chains, game theory, decision analysis, queueing theory, mathematical modeling, general systems theory, and case studies in operations research. This course emphasizes modeling and decision-making skills. Prerequisite: IE 3301, IE 3315, and MATH 3319.

4318. ENTERPRISE DESIGN (3-0) 3 hours credit. Design, analysis, and modeling of enterprises in the E-enterprise environment. Topics include enterprise architectures, structured system modeling methods, enterprise integration, and enterprise transformation. Prerequisite: IE 4308.

4322. ENTERPRISE SIMULATION (3-0) 3 hours credit. 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. Prerequisites: IE 3314 or concurrent enrollment, and IE 4315.

4325. AUTOMATION AND ROBOTICS (2-3) 3 hours credit. 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 in the E-enterprise environment are presented. Laboratory exercises focus on a practical introduction to various automation technologies. Prerequisites: IE 4303 or concurrent enrollment.

4339. PRODUCT DEVELOPMENT, PRODUCIBILITY AND RELIABILITY DESIGN (3-0) 3 hours credit. This course covers the product development and engineering design process with focus on collaborative design in the E-enterprise environment. Manufacturing, reliability, testing, logistical and product support considerations are emphasized. Prerequisite: junior standing in industrial engineering.

4343. FACILITIES PLANNING AND DESIGN (3-0) 3 hours credit. 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. Prerequisites or concurrent: IE 4302, IE 4303, IE 4322, IE 4339, and IE 4344.

4344. HUMAN FACTORS ENGINEERING (2-3) 3 hours credit. 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 3343.

4345. KNOWLEDGE AND TECHNOLOGY MANAGEMENT AND E-COMMERCE (3-0) 3 hours credit. Review of contemporary issues in knowledge management, technology management, and E-commerce. Topics include knowledge acquisition, intelligent database design, decision support systems, E-commerce technologies, designs and tools, and collaborative development. Prerequisite: junior standing.

4349. AUTOMATION AND ROBOTICS (2-3) 3 hours credit. Study of the design, implementation, and operation of robotics technology. An in-depth study of the design and deployment of industrial automation and robotics technology to meet the needs of high-precision, multi-product production environments. The laboratory activities associated with the course provide practical experience in the areas of sensor-driven automated process development, industrial vision, modular and reconfigurable automation, simulation-based system design and an introduction to computer-based manufacturing control and execution technologies. Prerequisite: IE 4325.

4350. INDUSTRIAL ENGINEERING CAPSTONE DESIGN (2-3) 3 hours credit. This course provides an open-ended design experience through the planning and design of an enterprise. 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 with 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. Prerequisites or concurrent enrollment: IE 4303, IE 4318, IE 4325, IE 4343, and IE 4345.

The Department of Mechanical and Aerospace Engineering

Mechanical Engineering • 204 Woolf Hall • Box 19023 • 817-272-2561 • www-mae.uta.edu
Aerospace Engineering • 211 Woolf Hall • Box 19018 • 817-272-2603 • www-mae.uta.edu

The Department of Mechanical and Aerospace Engineering 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 balanced by humanities, will ensure that graduates are well prepared to tackle tomorrow's problems. The curriculum covers the four broad areas of aerodynamics, propulsion, flight mechanics, and structures, 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, 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.

Honors Program in Mechanical Engineering

Highly qualified students may elect participation in the Honors Program in Mechanical Engineering. This program offers an accelerated path to the BSME degree with the possibility of facilitated admission to the U.T. Arlington Graduate School to study for an advanced degree or early admission to another professional school (e.g. law, MBA, or medicine). In the Graduate School, two likely options are Master of Engineering Mechanical Engineering Degree or Master of Science in Mechanical Engineering Degree.

The Honors Program in Mechanical Engineering is based on a series of honors mechanical engineering courses that allow the highly qualified student to study certain engineering fundamentals in parallel with the mechanical engineering applications. The honors mechanical engineering courses will be rich in multimedia learning opportunities and may be taught on a self-paced, mentor assisted basis if appropriate to the individual student's academic goals. Students must maintain a 3.3 minimum GPA to continue in the program.

The Honors Program in Mechanical Engineering program is planned for eight semesters. It is anticipated that the participating students will further enrich their education by partaking in summer industrial internships or cooperative education programs.

Letter applications for admission to the Honors Program in Mechanical Engineering are appropriate at two points of a student's academic life. The first is coincident to admission to the university as an entering freshman. The second is coincident to application for admission to the professional program. The second, either as a continuing U.T. Arlington student or as a transfer from another institution, requires a 3.3 GPA and completion of the pre-professional curriculum.

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 BSAE can qualify for a second degree in mechanical engineering by taking appropriate courses. Similarly, a person who completes all requirements for a 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 U.T. 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.

Counseling

During each long semester, the Mechanical and Aerospace Engineering Department conducts a pre-enrollment counseling 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 counse-

lors during counseling week and complete a Registration Advising Form. Returning students who are unable to be present for counseling during counseling week should contact their counselors at the earliest opportunity. New students may receive pre-enrollment counseling in the department office during late registration or the preceding week.

* See "Counseling" in the College of Engineering section of this catalog.

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:

1. The desire and capability of lifelong learning
2. A strong foundation in science, mathematics and engineering science
3. The ability to assume a leadership role in the mechanical and aerospace engineering professions
4. Technical competence in multiple areas of mechanical or aerospace engineering practice
5. 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.

Students shall have:

1. An ability to apply knowledge of mathematics, science and engineering
2. An ability to design and conduct experiments as well as to analyze and interpret data
3. An ability to design a system, component or process to meet desired needs
4. An ability to function in multidisciplinary teams
5. An ability to identify, formulate and solve engineering problems
6. An understanding of professional and ethical responsibility
7. An ability to communicate effectively
8. The broad education necessary to understand the impact of engineering solutions in a global and societal context
9. A recognition of the need for and an ability to engage in lifelong learning
10. A knowledge of contemporary issues
11. An ability to use the techniques, skills and modern engineering tools necessary for engineering practice

Goal of the Undergraduate Program and Graduating Seniors' Portfolios

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.

We are challenged by the Accreditation Board for Engineering and Technology (ABET) to demonstrate that our graduates have obtained certain abilities, as enumerated in the College of Engineering section of this catalog.

Senior Portfolios

Our program's success will in part be demonstrated by presenting students' portfolios and data from graduates' exit surveys and interviews. The development of the student portfolios is a natural outgrowth of the modern job search process that new graduates undertake. It is often helpful to be able to demonstrate to prospective employers the breadth and depth of a student's work in the interview procedure.

The Mechanical Engineering Senior Portfolio may include the following:

1. Design Project report and presentation (video, Powerpoint diskette and/or transparency copies) (4288)
2. Design II project report and presentation (4342)
3. K&D project report and presentation (3318)
4. Lab reports (2381, 3121, 3183)
5. CAD project and presentation (4344)
6. Course project reports (2360, 2314, 3314, 3311, 3321, ...)
7. Selected course materials (homework and exams) from required MAE courses.
8. Competition reports and presentations:
 - Formula SAE
 - ASME Old Guard
 - ASME Design Competition
 - SAE Heavy Lift Vehicle
 - Autonomous Aero-robotic Vehicle

The Aerospace Engineering Senior Portfolio may include the following:

1. Design Project report and presentation (video, Powerpoint diskette and/or transparency copies) (4350)
2. Design II project report and presentation (4351)
3. Lab reports (2381, Aerodynamics and Structure Labs)
4. Course project reports (2360, 2314, ...)
5. Selected course materials (homework and exams) from required MAE courses
6. Competition reports and presentations:
 - AIAA Design Competition
 - Autonomous Aero-robotic Vehicle

In gathering the portfolio materials, students are to provide copies for the department's use (not returned) as well as for their own use. Further, each student is asked to complete an exit survey questionnaire, prepare an exit essay demonstrating his or her personal compliance with each of the MAE program outcomes, and participate in an exit interview with the Mechanical and Aerospace Engineering Program Director. Although the portfolio materials are not to be turned in until participating in MAE 4288 or MAE 4351—normally taken the semester before graduation—the prudent student will plan ahead and begin accumulating the required materials as they are encountered in the various courses, storing them carefully until needed in MAE 4288 or MAE 4351. The portfolio materials, exit survey questionnaire, and essay will be included as course requirements in MAE 4288 or MAE 4351.

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 Foreign Language 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:
 - a. Application to the Professional Program is to be made to the Undergraduate Advisor during the semester following completion of the last pre-professional course.
 - b. 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.
 - c. Although a number of courses are available in the evening hours, students will need to take daytime classes on occasion to complete degree requirements.
 - d. Most 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.

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, 2325, 2326

Natural Science

CHEM 1301;1302; PHYS 1443, 1444.

Design Graphics

1350.

Electrical Engineering

2320.

Mechanical and Aerospace Engineering

1231, 1312, 2312, 2314, 2321, 2323, 2360, 2381, 3310, 3360.

General Education Courses

English and Literature

Six hours of composition.

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. For AE majors, SPCH 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

3302, 3303, 3304, 3305, 3314, 3315, 3316, 3319, 4310, 4321, 4350, 4351.

Technical Electives

Three hours in engineering, science, or mathematics (3000 level or higher).

Total (Pre-Professional Courses)**

59 hours.

Total (General Education Courses)

30 hours.

Total (Professional Courses)

39 hours.

Total (for degree)**

128 hours, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

* A list of acceptable electives is available in the departmental 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 language courses in addition to the previously listed requirements.

Suggested Course Sequence

This course sequence assumes that the student is qualified to start with CHEM 1301, PHYS 1443, MATH 1426.

Freshman Year

Fall Semester: ENGL 1301; MATH 1426; CHEM 1301; PHYS 1443; MAE 1231—Total Credit 16 hours.

Spring Semester: ENGL 1302; MATH 2325; CHEM 1302; PHYS 1444; MAE 1312—Total Credit 16 hours.

Sophomore Year

Fall Semester: DG 1350; MATH 2326; EE 2320; MAE 2360; MAE 2323; EXSA or ROTC, 1 hour—Total Credit 16 hours.

Spring Semester: MAE 2381; MAE 2312; MAE 2314; MAE 2321; MAE 3360; MAE 3310—Total Credit 18 hours.

Junior Year

Fall Semester: MAE 3302; MAE 3314; MAE 3315; ENGL 23XX; POLS 2311; EXSA or ROTC, 1 hour—Total Credit 16 hours.

Spring Semester: MAE 3303; MAE 3305; MAE 3316; MAE 3319; POLS 2312; EXSA or ROTC, 1 hour—Total Credit 16 hours.

Senior Year

Fall Semester: MAE 4350; MAE 4321; MAE 4310; MAE 3304; SPCH 3302; HIST 1311—Total Credit 18 hours.

Spring Semester: MAE 4351; ECON 2305; Approved Technical Elective, 3 hours; Fine Arts Elective, 3 hours; HIST 1312; EXSA or ROTC, 1 hour—Total Credit 16 hours.

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, 2325, 2326.

Natural Science

CHEM 1301, 1302; PHYS 1443, 1444.

Design Graphics

1350.

Electrical Engineering

2320.

Mechanical and Aerospace Engineering

1231, 1312, 2312, 2321, 2323, 2360, 2381, 3310, 3360.

English

Six hours of composition

General Education Courses

Two out of eight of these courses are considered part of the pre-professional program.

English 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 above the freshman level. For ME majors SPCH 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, 3121, 3183, 3311, 3314, 3318, 3319, 3321, 3242, 3344, 4287, 4288, 4310, 4342, 4344.

Technical Electives**

Six hours in engineering.

Pre-Professional Total***

65 hours.

General Education Total

24 hours (six of which are included in pre-engineering).

Professional Total

41 hours.

Total (for degree)***

130 hours, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

* A list of acceptable electives is available in the departmental office.

** Technical electives must be approved in advance by the student's faculty counselor. See also "Technical Elective Selection" on the next page.

*** 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 language courses in addition to the previously listed requirements.

Honors Courses

Substitute MAE 2410 for MAE 2312 and 3242; MAE 2411 for MAE 3310 and 3311; MAE 2412 for MAE 2314 and 3314; MAE 2413 for MAE 2321 and 3321; MAE 3410 for MAE 2323 and 3318; MAE 4410 for MAE 3319 and 4310. MAE 4294 is repeated for credit to meet the 131 credit hour minimum requirement.

Suggested Course Sequence

(Pre-Professional Program)

This course sequence assumes that the student is qualified to start with CHEM 1301, PHYS 1443, MATH 1426.

Freshman Year

First Semester: MAE 1231; CHEM 1301; ENGL 1301; MATH 1426; PHYS 1443; EXSA or ROTC or Marching Band—Total Credit 17 hours.

Second Semester: MAE 1312; CHEM 1302; ENGL 1302; MATH 2325; PHYS 1444; EXSA or ROTC—Total Credit 17 hours.

Sophomore Year

First Semester: MAE 2360; MAE 2321; MAE 2323; DG 1350; EE 2320; MATH 2326—Total Credit 18 hours.

Second Semester: MAE 2381; MAE 2312; MAE 3310; MAE 3344; HIST 1311; MAE 3360—Total Credit 18 hours.

Suggested Course Sequence (Professional Program)

Junior Year

First Semester: MAE 2314; MAE 3121; MAE 3311; MAE 3319; MAE 3321; HIST 1312; POLS 2311—Total Credit 19 hours.

Second Semester: MAE 3183; MAE 3314; MAE 3318; MAE 3242; POLS 2312; Literature, 3 hours—Total Credit 15 hours.

Senior Year

First Semester: MAE 4287; MAE 4310; MAE 4344; SPCH 3302; *Technical Elective, 3 hours; EXSA or ROTC—Total Credit 15 hours.

Second Semester: MAE 4288; MAE 4342; ECON 2305; Fine Arts (elective), 3 hours; Technical Elective, 3 hours; EXSA or ROTC—Total Credit 15 hours.

* See "Technical Elective Selection" on this page.

Suggested Honors Course Sequence (Pre-Professional Program)

Freshman Year

First Semester: ENGL 1301; MATH 1426; PHYS 1443; CHEM 1301; MAE 1231; EXSA, MS or Marching Band—Total Credit 17 hours.

Second Semester: CHEM 1302; ENGL 1302; MATH 2325; PHYS 1444; MAE 1312; EXSA, MS or Marching Band—Total Credit 17 hours.

Sophomore Year

First Semester: DG 1350; MATH 2326; EE 2320; MAE 2360; MAE 2413; MAE 4294—Total Credit 18 hours.

Second Semester: MAE 2410; MAE 2381; MAE 2411; MAE 3360; MAE 4294; MAE 4294; EXSA, MS or Marching Band—Total Credit 19 hours.

Suggested Honors Course Sequence (Professional Program)

Junior Year

First Semester: MAE 3344; POLS 2311; MAE 3121; MAE 2412; MAE 4294; EXSA, MS or Marching Band - Total Credit 14 hours.

Second Semester: POLS 2312; MAE 3183; MAE 3410; Literature; HIST 1311, MAE 4294—Total Credits 16 hours.

Senior Year

First Semester: SPCH 3302; MAE 4287; MAE 4410; MAE 4344; *Technical Elective, 3 hours; MAE 4294—Total Credit 17 hours.

Second Semester: Fine Arts (elective), 3 hours; HIST 1312; MAE 4288; MAE 4342; ECON 2305; Technical Elective, 3 hours—Total Credit 17 hours.

* See "Technical Elective Selection" on this page.

Scheduling of Course Offerings

Required courses suggested above to be taken in the Fall semester will normally be offered in the Fall and Spring semesters. Those suggested to be taken in the Spring semester will normally be offered in the Spring semester and in the long Summer session.

Technical Elective Selection

The six hours of technical electives must be approved in advance by the student's counselor. Normally, they must be selected from among the senior elective courses in mechanical engineering.

Oral Communication and Computer Use Competency Requirements

Mechanical and Aerospace Engineering students will satisfy the Oral Competency requirement by completing SPCH 3302, Professional and Technical Communications. They will satisfy the Computer Use Competency requirement by completing MAE 1231 and MAE 2360.

Department of Mechanical and Aerospace Engineering Faculty

Chair

Professor Wilson

ME Program Director

Professor Lawley

AE Program Director

Professor Tuckness

Professors

Agonafer, Anderson, Chan, Dulikravich,

Gaines, Goolsby, Haji-Sheikh, Hullender,

Johnson, Joshi, Lawrence, Lu, Mills,

Nomura, Payne, Seath, Wang, Woods, Yih

Associate Professors

Aswath, Lund, Tong, You

Assistant Professors

Harris, Shiakolas

Design Graphics Section (DG)

Design Graphics courses are administered through a section of the Department of Mechanical and Aerospace Engineering.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

Courses to be offered on a regularly scheduled basis are designated [in brackets] as follows: FA=Fall, SP=Spring, LS=Long Summer session.

Mechanical and Aerospace Engineering (MAE)

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.

1231. INTRODUCTION TO MECHANICAL AND AEROSPACE ENGINEERING (1-3) 2 hours credit. Ethics and professional conduct in an engineering organization. Basic concepts in vehicle design, power transmission, flight mechanics, aerodynamics, astronautics, combustion, propulsion, heat transfer, engineering materials, robot-

ics and computer aided design. Student teams will engage in a design project which will require integration of some of these basic concepts.

1312. ENGINEERING STATICS (3-0) 3 hours credit. 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. Prerequisites: Pass PHYS 1443 and MATH 1426 with C or better before enrolling in MAE 1312.

2191, 2291, 2391. SPECIAL PROBLEMS IN MECHANICAL AND AEROSPACE ENGINEERING (Variable credit, individual instruction). Special problems in mechanical and aerospace engineering for students in the Pre-Mechanical and Pre-Aerospace Engineering Program.

2312. SOLID MECHANICS (3-0) 3 hours credit. 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. Also taught as CE 3311. Prerequisite: MAE 1312 or CE 2312.

2314. FLUID MECHANICS I (3-0) 3 hours credit. 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. Prerequisites: MAE 2323, MATH 2326 or concurrent enrollment, and MAE 3310 or concurrent enrollment.

2321. MATERIALS SCIENCE (3-0) 3 hours credit. Physical, mechanical, electrical, chemical properties of metals, semiconductors, ceramics, polymers, composites, and aggregates and the relationships between these properties and the electronic, crystal, micro and macrostructures of the materials. Prerequisites: CHEM 1302 and PHYS 1444.

2322. STATICS AND SOLID MECHANICS (3-0) 3 hours credit. Force systems, free body diagrams, equilibrium of particles, rigid bodies and structures; centroids and moments of inertia; stress and strain in elastic solids, and applications to simple engineering problems. Prerequisites: PHYS 1443, MATH 2325.

2323. DYNAMICS (3-0) 3 hours credit. 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. Prerequisites: MAE 1312 or CE 2311 and MATH 2325.

2360. ENGINEERING ANALYSIS I (2-3) 3 hours credit [FA, SP]. Utilization of digital computers in mechanical and aerospace engineering. Computational algorithms and their representation in FORTRAN and C. Introduction to Linear Algebra and Numerical Methods. Prerequisite: MATH 2325 or concurrent enrollment.

2381. EXPERIMENTAL METHODS AND MEASUREMENTS (2-3) 3 hours credit [FA, SP, LS]. 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. Prerequisite: MATH 2325.

2410. HONORS MECHANICAL DESIGN (4-0) 4 hours credit. The relationships between stresses, strains, and deflections in elastic and plastic bodies and the loads that produce them. Simple and combined stresses and failure theories for static and variable loading.

Applications of material properties and principles of solid mechanics to the analysis and design of machine structure members. Prerequisites: Admission to Honors ME, MAE 1312 or CE 1312.

2411. HONORS THERMAL ENGINEERING I (4-0) 4 hours credit. Basic concepts and definitions, properties of pure substance, work and heat, first law of thermodynamics, second law of thermodynamics, entropy and thermodynamics of gases, vapors and liquids in various non-flow and flow processes. Irreversibility and availability, 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. Prerequisites: Admission to Honors ME, MATH 2325 or 2525, PHYS 1444, MAE 1312 or CE 2312, MAE 2360.

2412. HONORS THERMAL ENGINEERING II (4-0) 4 hours credit. The fundamental concepts of fluid mechanics with applications to engineering problems in buoyancy, hydrostatics, fluid dynamics and dimensional analysis and similitude. The fundamental laws of heat and mass transfer, including steady and unsteady conduction, convection and radiation. Prerequisites: Admission to Honors ME, PHYS 1444, MAE 1312 or CE 2312, MAE 2360 and 3360 (or concurrent enrollment).

2413. HONORS MATERIALS SCIENCE AND ENGINEERING (4-0) 4 hours credit. Physical, mechanical, electrical and chemical properties of metals semiconductors, ceramics, polymers and composites with an emphasis on understanding fundamental issues. Relationship between the processing, micro and macro structure of materials with their properties such as strength, ductility, toughness, fatigue, fracture and creep with special emphasis on mechanical properties of metals, polymers, ceramics and composites. Prerequisites: Admission to Honors ME, CHEM 1302, PHYS 1444.

3121. MATERIALS SCIENCE LAB (0-3) 1 hour credit [FA, SP]. Experimental studies of the basic mechanical, chemical, and physical properties of materials. Emphasis on the relationships between macroscopic properties and the corresponding influence of the atomic and microstructural nature of the materials. Prerequisite: MAE 3321 or 2413 or concurrent enrollment.

3183. MEASUREMENTS LABORATORY II (0-3) 1 hour credit [FA, SP, LS]. Fundamental measurement techniques in mechanical engineering in the fields of thermal/fluid sciences, energy conversion, design, and systems control. Introduction of advanced instrumentation concepts. Prerequisites: MAE 1312, 2381, 2314 or 2412, 3314, 3319 (or 4410), and EE 2320 (or concurrent enrollment).

3242. ENGINEERING DESIGN I (2-0) 2 hours credit [SP, LS]. Additional topics from mechanics of solids: energy methods, multi-axial stresses, etc. Introduction to concepts of concurrent engineering, product realization process and design for manufacturing. Prerequisites: MAE 2312 or 2410. Concurrent enrollment: MAE 3321 or 2413.

3302. AERODYNAMICS OF INCOMPRESSIBLE FLOWS (3-0) 3 hours credit. Fundamental theory of incompressible flows with applications to the prediction of aerodynamic characteristics of wings and bodies. Viscous effects on aerodynamics. Prerequisites: MAE 2314 and 3360.

3303. AERODYNAMICS OF COMPRESSIBLE FLOWS (2-3) 3 hours credit. Fundamentals of physical and mathematical gas dynamics; isentropic, adiabatic, barotropic and Prandtl-Meyer flows; normal, oblique shocks; the shock-expansion theory; thin-airfoil and small-perturbation theory; design principles for supersonic vehicles and wind tunnels. Prerequisites: MAE 3302.

3304. ASTRONAUTICS I (3-0) 3 hours credit. Introduction to astronautics, the solar system, and the two-body problem. Engineering approximation for orbital transfers and vehicle staging of powered trajectories. The single vehicle to orbit problem. Design considerations for earth satellites. Prerequisite: MAE 2323 and MATH 2326.

3305. FLIGHT DYNAMICS (3-0) 3 hours credit. General equations of motion of a flight vehicle. Determination of aircraft performance, static stability and control. Stability derivatives, stability of uncontrolled motion, and open loop and closed loop control. Prerequisites: MAE 3302, MATH 2326.

3309. THERMAL ENGINEERING (3-0) 3 hours credit [FA, SP, LS]. 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. Prerequisites: MATH 2325, PHYS 1444.

3310. THERMODYNAMICS I (3-0) 3 hours credit [FA, SP, LS]. 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. Prerequisites: MATH 2325 or 2525; PHYS 1444; MAE 2360; and CE 2312, or MAE 2322, or MAE 1312.

3311. THERMODYNAMICS II (3-0) 3 hours credit [FA, SP]. 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. Prerequisites: CHEM 1302; MAE 3310, 3360, 2314 or concurrent enrollment.

3314. HEAT TRANSFER (3-0) 3 hours credit [FA, SP]. 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. Prerequisites: MAE 3360, 2314, 3311 and EE 2320.

3315. AEROSPACE STRUCTURAL STATICS WITH LAB (2-3) 3 hours credit. Concepts of stress/strain tensor and traction vector, differential equations of equilibrium, constitutive material relations, anisotropic solids, bending and extension of advanced beams, torsion in thin-walled closed sections, shear in advanced beams, beam vibration and buckling analysis. Prerequisite: AE 2312.

3316. AEROSPACE STRUCTURAL DYNAMICS (3-0) 3 hours credit. Work and energy principles, general procedure of finite element method, static analysis; truss, frame and plate elements, dynamic analysis; vibration and transient dynamic response. Prerequisite: MAE 3315.

3317. LINEAR SYSTEMS (3-0) 3 hours credit. Time-domain transient analysis, convolution, Fourier Series and transforms, Laplace transforms and applications, transfer functions, signal flow diagrams, Bode plots, stability criteria, sampling, and Z-transforms. Prerequisite: MAE 3360. Also taught as EE 3317.

3318. KINEMATICS AND DYNAMICS OF MACHINES (3-0) 3 hours credit [SP, LS]. 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. Prerequisite: MAE 2323.

3319. DYNAMIC SYSTEMS MODELING AND SIMULATION (3-0) 3 hours credit [FA, SP]. 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. Prerequisites: MAE 2360, 2323 (or 3410), 3310 (or 2411), 3360. Concurrent enrollment: MAE 2314 and 3314 (or 2412); EE 2320.

3321. MECHANICAL BEHAVIOR OF MATERIALS (3-0) 3 hours credit [FA, SP]. The interrelationships between processing, structure, and properties of engineering materials with emphasis on the mechanical behavior of metals, polymers, and composite materials. Prerequisite: MAE 2321.

3330. DIGITAL SYSTEMS (3-0) 3 hours credit [FA, SP]. Applications of personal computers (PC), programmable logic controllers (PLC), and microprocessors (MP) for instrumentation, automation, and control. Digital systems, architecture, interfacing, and programming. Prerequisite: MAE 2360.

3344. INTRODUCTION TO MANUFACTURING ENGINEERING (2-3) 3 hours credit [SP, LS]. Introduction to casting, forming, machining, and joining processes for metals and non-metals. Prerequisites: MAE 2312 or 2410, 2321 or 2413.

3350. PRIVATE PILOT AERONAUTICS (3-0) 3 hours credit. Principles of private flying: weather, navigation, instruments, aircraft and engine operation, radio use, visual flight planning. Designed to provide student with appropriate ground school training leading to a private pilot license. Cannot be counted for credit toward a degree in aerospace engineering.

3360. ENGINEERING ANALYSIS II (3-0) 3 hours credit. [SP, LS] Methods for solving, by means of mathematical analysis, problems which occur in engineering. Basic mathematical analysis tools will be selected from numerical and closed form solutions of differential equations, numerical integration and differentiation, vector spaces, linear transformations, matrix/vector algebra, solutions of linear systems, eigenvectors, Laplace transform, infinite series, complex variables; Fourier analysis; special functions, and systems of equations. Prerequisites: MATH 2326 and MAE 2360.

3410. HONORS KINEMATICS AND DYNAMICS OF MECHANICAL SYSTEMS (4-0) 4 hours credit. The relationships 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. The application of the principles of kinematics and dynamics to the motion and interactions of machine elements. Both analysis and synthesis of machine elements is emphasized. Prerequisites: Admission to Honors ME, MATH 2326 or 2525, MAE 1312 or CE 1312.

4191, 4291, 4391. SPECIAL PROBLEMS IN MECHANICAL AND AEROSPACE ENGINEERING (Variable credit, individual instruction). Special problems in mechanical and aerospace engineering for students of senior standing.

4287. DESIGN PROJECT I (2-0) 2 hours credit. 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. Prerequisite: must be within two calendar semesters of graduation (possibly including an 11-week summer session).

4288. DESIGN PROJECT II (2-0) 2 hours credit. 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. Graduating senior's portfolios, exit sur-

vey forms, and exit essays must be submitted to complete the requirements of this course. Prerequisite: MAE 4287.

4294, 4494. HONORS MECHANICAL ENGINEERING PROBLEMS (variable credit, individual instruction). A problem course designed to meet the needs of mechanical engineering undergraduate students in the honors program. This course may be repeated for credit as approved by the ME undergraduate advisor. Prerequisite: Admission to Honors ME.

4301. SPECIAL TOPICS IN MECHANICAL AND AEROSPACE ENGINEERING (3-0) 3 hours credit. Topics will vary from semester to semester depending on student interest and the availability of faculty. May be repeated, provided topics are different. Prerequisite: prior approval by the student's advisor.

4302. HELICOPTER DYNAMICS/AERODYNAMICS (3-0) 3 hours credit. Blade flapping motion; hub types and number of blades; in-plane and torsional deflections; aerodynamic fundamentals. Aeroelastic effects and couplings; coupling between rotor and fuselage; ground resonance; fuselage vibrations; preliminary design considerations.

4304. ASTRONAUTICS II (3-0) 3 hours credit. 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.

4307. FINITE ELEMENT METHODS (3-0) 3 hours credit. Static response of complex structures and continua; application to field problems; mesh generation; error estimation and adaptive refinement. Prerequisite: MAE 3342 or 2410.

4310. INTRODUCTION TO AUTOMATIC CONTROL (3-0) 3 hours credit [SP, LS]. 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. Prerequisite: MAE 3319 or 4410. Also offered as EE 4314.

4312. CONTROL SYSTEMS COMPONENTS (3-0) 3 hours credit. 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 or 4410 or permission of instructor.

4313. FLUID MECHANICS II (3-0) 3 hours credit. A continuation of MAE 2314, consisting of a study of boundary-layer flows, inviscid incompressible flow, compressible flow, aerodynamic surfaces, and turbomachinery. Prerequisite: MAE 2314 or 2412.

4314. MECHANICAL VIBRATIONS (3-0) 3 hours credit. 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. Prerequisites: MAE 3360, 2323 or 3410.

4315. INTRODUCTION TO COMPOSITES (3-0) 3 hours credit. 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. Prerequisite: MAE 1312, 2312 or 2410, 2322 or CE 3311.

4320. HYDRAULIC AND PNEUMATIC SYSTEMS (3-0) 3 hours credit. 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. Prerequisites: MAE 2314 or 2412, and 4310 or 4410 or permission of instructor.

4321. AIR-BREATHING ENGINE PROPULSION (3-0) 3 hours credit. 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. Prerequisite: MAE 3303 or MAE 3311 or 2411.

4322. ROCKET PROPULSION (3-0) 3 hours credit. 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 or 2411.

4323. ENERGY CONVERSION (3-0) 3 hours credit. Thermodynamics as applied to thermo-mechanical systems such as power cycles, engines, turbines, refrigeration, and air-conditioning systems. Prerequisites: MAE 3311 or 2411, and 2314 or 2412.

4327. HEATING, VENTILATION, AND AIR CONDITIONING (3-0) 3 hours credit. Application of engineering sciences to design of HVAC systems. Humidification and dehumidification, psychrometric charts, heat load, cooling load, degree-days, comfort zones, and air distribution systems. Prerequisites: MAE 3311 or 2411, and 3314 or 2412.

4330. DIGITAL CONTROLS (3-0) 3 hours credit. [FA, SP] Applications of personal computers (PC), programmable logic controllers (PLC), and microprocessors (MP) for instrumentation, automation and control. Digital systems, architecture, interfacing and programming. Prerequisite: MAE 2360.

4331. DESIGN FOR MANUFACTURING (3-0) 3 hours credit. 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. Prerequisites: MAE 2321 or 2413, 3342 or 2410, and 3344.

4332. OPTIMUM MECHANICAL DESIGN (3-0) 3 hours credit. Mathematical approximations, manufacturing errors, and factor of safety. A method of optimum design is formulated and applied to a number of mechanical elements. Prerequisite: MAE 3342 or 2410.

4336. ADVANCED MECHANICAL BEHAVIOR OF MATERIALS (3-0) 3 hours credit. 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. Prerequisites: MAE 2312 or 2410, 3321 or 2413.

4337. PHYSICAL METALLURGY (3-0) 3 hours credit. The scientific background to the properties of metals and alloys with special problems in physical metallurgy. Prerequisite: MAE 3321 or 2413.

4338. FAILURE ANALYSIS (2-3) 3 hours credit. Theory and practice of techniques for determining modes of failure and fracture of engineering materials. Prerequisite: MAE 3321 or 2413.

4339. FRACTURE MECHANICS (3-0) 3 hours credit. 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. Prerequisites: MAE 2312 or 2410, 3321 or 2413, 3342 or 2410.

4340. SOFTWARE ENGINEERING FOR MECHANICAL AND AEROSPACE ENGINEERS (3-0) 3 hours credit. Engineers of all disciplines are involved in software development at some stage in their careers, but they receive little or no knowledge of software engineering principles. This course includes a definition of software engineering, the Capability Maturity Model of the Software Engineering Institute, the advantages and disadvantages of procedural, list-oriented, object-oriented and component-based, functional and data base oriented programming approaches. Development models such as the waterfall, the helical and rapid prototyping will be discussed. The course will be based on computer science software engineering courses but with emphasis on the mechanical and aerospace disciplines.

4342. ENGINEERING DESIGN II (3-0) 3 hours credit [SP, LS]. A continuation of Engineering Design I. Emphasis on the design of mechanical elements and system synthesis. Prerequisites: MAE 3318 and 3342.

4344. COMPUTER-AIDED DESIGN (3-0) 3 hours credit [FA, SP]. A study of the principles of computer-aided design in mechanical engineering. Applications in machine, structural, control, thermal, and fluid systems. Prerequisites: MAE 2360, 3319 or 4410, and 3342 or 2410.

4345. INTRODUCTION TO ROBOTICS (3-0) 3 hours credit. Overview of industrial robots. Principles of kinematics, dynamics, control as applied to robotic systems; robotic sensors and actuators; path planning; programming an industrial robot in the laboratory; survey of application of robots in manufacturing; and guidelines to robot arm selection. Prerequisites: MAE 3318 or 3410, 3319 or 4410. Concurrent enrollment: MAE 4310 or 4410. Senior level standing or consent of the instructor. Also offered as EE 4315.

4347. HEAT EXCHANGER DESIGN (3-0) 3 hours credit. Design procedure system evaluation; design parameters in heat exchangers. The course considers various heat exchanger configurations and includes student design projects. Prerequisite: MAE 3314 or 2412.

4348. COOLING OF ELECTRONIC PACKAGES (3-0) 3 hours credit. The calculation of heat loads and temperature fields using different cooling techniques. Includes parameter evaluation and design studies. Prerequisites: MAE 3309 or 3314 or 2412.

4350. AEROSPACE VEHICLE DESIGN I (3-0) 3 hours credit. Methodology and decision making involved in the preliminary design of aerospace vehicles. Applications to meet vehicle requirements and mis-

sion specifications, including conceptual design, preliminary sizing, trade-off studies, weight, and cost estimates. Also included will be economic, environmental, sustainability, manufacturability, safety, social and political considerations. Prerequisites: MAE 3303, MAE 3305.

4351. AEROSPACE VEHICLE DESIGN II (3-0) 3 hours credit. Student multidisciplinary design teams will be formed to apply design methods to aircraft, spacecraft, vehicle propulsion systems, vehicle structural systems, or other systems. Applicable iterative methods and trade-off studies will be applied to optimize the design. Also included will be economic, environmental, sustainability, manufacturability, safety, social and political considerations. Formal written and oral reports will be required. Graduating senior's portfolio, exit survey forms and exit essays must be submitted to complete the requirements of this course. Prerequisites: MAE 4350 or MAE 4287 and MAE 4288.

4352. SPACE VEHICLE AND MISSION DESIGN (3-0) 3 hours credit. Space vehicle design; influence of space environment, astrodynamics, and atmospheric re-entry. 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: MAE 2323 or 3410 and MATH 2326.

4390. SPECIAL TOPICS IN MECHANICAL ENGINEERING (3-0) 3 hours credit. Special topics pertinent to the field of mechanical engineering 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 student's advisor.

4410. HONORS DYNAMIC SYSTEMS AND CONTROL (4-0) 4 hours credit. Introduction to modeling and simulation (prediction of behavior) of dynamic 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 performance. Block diagram algebra, transfer functions and stability criteria. Use of transient response, frequency response and root locus techniques in performance analysis, evaluation and design of dynamic systems. Prerequisites: Admission to Honors ME and MATH 3319, 2323 or 3410 and 3310 or 2411.

Other Engineering Subject Areas

Courses are offered in several other areas of engineering at either the undergraduate or graduate level, but no undergraduate degrees are offered in these areas. These areas are described in the following sections and in the Graduate Catalog.

Biomedical Engineering (BME)

220 Engineering Laboratory Building • Box 19138
817-272-2249 • www.uta.edu/biomed_eng/

Undergraduate degree emphasis areas have been developed for students in aerospace engineering, civil engineering, computer science and engineering, electrical engineering, industrial engineering, and mechanical engineering to develop fundamental knowledge in the field of biomedical engineering. With the permission of the department's undergraduate advisor, a student may enroll in 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. The purpose of the program is to expose students to an emerging branch of engineering. The program is restricted to students having an overall grade point average of at least 2.75. Students should contact the graduate advisor of the Biomedical Engineering Program for additional information.

Elective courses for students who wish to obtain an emphasis in biomedical engineering:

BME 1225: Introduction to Biomedical Engineering.

BME 4325: Contemporary Trends in Biomedical Engineering.

Recommended lists of courses for non-engineering majors are available from the program graduate advisor. Information can also be found on the BME 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 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, including a Bachelor of Science Degree in Biology. The curriculum is offered jointly by the College of Engineering and the College of Science.

Description

Biomedical engineers use quantitative methods and innovation to analyze and to 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 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 hand-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

English

1301, 1302.

Mathematics

1426, 2325, 2326, 3318.

Natural Science other than Biology

PHYS 1443, PHYS 1444, CHEM 1284, CHEM 1301, CHEM 1302, CHEM 2181, CHEM 2182, CHEM 2321, CHEM 2322, CHEM 4311.

Biology

1441, 1442, 3444, 3301, 33XX, 3312, 3315, 4346, 5361.

Core Engineering

CE 2312, CSE 1320, EE 2320, MAE 2381, MAE 2314, MAE 3183, MAE 3310, MAE 3314, MAE 3317, MAE 3319, MAE 4345.

Biomedical Engineering

1225, 4325, 5193, 5335, 5344, 5361, 5364, 5365, 5366, 5382, 5390.

Anatomy/Physiology

BME 5307D, BME 5309D.

Other General Educational Courses

Literature

Six hours of English or modern language literature.

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)

167 semester hours, plus four semester hours of exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Suggested Course Sequence**Freshman Year**

First Semester: BME 1225; MATH 1426; BIOL 1441; CHEM 1301; POLS 2311—Total Credit 16 hours.

Second Semester: MATH 2325; BIOL 1442; CHEM 1302; CHEM 1284; 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 17 hours.

Second Semester: MATH 3318; PHYS 1444; CHEM 2322; CHEM 2182; HIST 1312; 3 hours of fine art—Total 17 hours.

Junior Year

First Semester: CE 2312; MAE 3310 or CHEM 3321; CSE 1320; 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: BME 5307D; BME 5309D—Total Credit 6 hours.

Senior Year

First Semester: MAE 3183; MAE 3314; BME 4325; BIOL 3312; CHEM 4311; 3 hours of literature—Total 16 hours.

Second Semester: MAE 3319; MAE 3317 or EE 3317; MAE 4345 or EE 4315; BME 5382; BIOL 4346—Total 15 hours.

Summer Session: BME 5344; BME 5364—Total Credit 6 hours.

Fifth Year

First Semester: BME 5335; BME 5361; BME 5366; BIOL 5361 or BIOL 5362, BIOL 33XX —Total 15 hours.

Second Semester: BME 5365; BME 5390; BME 5193—Total 7 hours.

Required Hours in EXSA/DNCA or ROTC or Marching Band

Courses in EXSA/DNCA or ROTC or marching band can be taken in different semesters. A suggested sequence is one hour in the first semester of the sophomore year, one hour each in the first and second semesters of the junior year, and one hour in the first semester of the senior year.

Biomedical Engineering Faculty**Interim Director**

Professor Behbehani

Professors

Chuong, Eberhart

Associate Professor

Liu, Tang

Assistant Professors

Nelson

Biomedical Engineering (BME)

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.

1225. INTRODUCTION TO BIOMEDICAL ENGINEERING (2-0)

2 hours credit. 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 biomedical engineering and biotechnology. Course includes visits to the area hospitals and bioengineering industry.

4325. CONTEMPORARY TRENDS IN BIOMEDICAL ENGINEERING (3-0) 3 hours credit.

Consists of lectures to cover the current development in various biomedical engineering research areas: including medical imaging, instrumentation, biomechanics, tissue engineering, artificial organs, biomaterials, and functional genomics, etc. Lecturers include faculty, guest speakers from area medical centers, hospitals, and the bioengineering industry who will cover their respective research areas.

5307D. HUMAN ANATOMY LECTURE (3-0) 3 hours credit.

This course offers the lecture portion of a comprehensive study of the structure and function of human body systems and their mechanisms. Emphasis is placed on the major characteristics of each body system and on its function and relationship to other body systems.

5309D. HUMAN PHYSIOLOGY (3-0) 3 hours credit. This course offers a comprehensive study of the basic physiological principles dealing with body systems and their interrelationships.

5361. BIOMATERIALS AND BLOOD COMPATIBILITY (3-0) 3

hours credit. This course is an introduction to polymer structure and fabrication methods. Blood and tissue interactions with materials and methods to improve biocompatibility of materials are discussed.

5390. RESEARCH PROJECT IN BIOMEDICAL ENGINEERING (3-0) 3 hours credit.

This course requires student to conduct a research project and write a project report under the supervision of a faculty member.

5193. M.S. COMPREHENSIVE EXAMINATION (1-0) 1 hour credit.

This course includes instruction, directed study, and examination of course work leading to the non-thesis M.S. degree in Biomedical Engineering.

5335. BIOLOGICAL MATERIALS, MECHANICS, AND PROCESSES (3-0) 3 hours credit.

This course offers a study of typical, functional behavior of various biological materials, flow properties of blood, bioviscoelastic fluids and solids, and mass transfer in biological systems.

5344. BIOMEDICAL INSTRUMENTATION 1A (3-0) 3 hours credit.

The fundamental principles of bioinstrumentation are presented in this course, including operational amplifiers and instrumentation amplifiers; measurement of biopotential signals; measurement of temperature, blood pressure and flow; electrical safety.

5364. TISSUE ENGINEERING LECTURE (3-0) 3 hours credit.

Fundamentals of cell/extracellular matrix interactions in terms of cell spreading, migration, proliferation and function. Soft and hard tissue wound healing. Nerve regeneration. Polymer scaffolding materials and fabrication methods. Cell-polymer interactions, in vitro and in vivo. Tissue culture, hybrid organ synthesis and organ replacement.

5365. TISSUE ENGINEERING LAB (3-0) 3 hours credit. Polymer extrusion, polymer drug loading, and polymer degradation with drug release. Each student will be given the opportunity to perform these experiments, including the culture of cells, testing for cell growth, proliferation and function under various substrate and media conditions.

5366. PROCESS CONTROL IN BIOTECHNOLOGY (3-0) 3 hours credit. Principles and methods of measurement, data acquisition and analysis. Application of control theory in biological systems and in biotechnology processes; control of pressure, flow, temperature, and pH.

5382. LABORATORY PRINCIPLES (3-0) 3 hours credit. This course is an introduction to fundamental biomedical-engineering laboratory procedures, including human and animal studies. Data collection, analysis, and interpretation are emphasized.

Please consult the Biology Department entry for descriptions of other courses required for this curriculum.

Design Graphics Section (DG)

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.

Design Graphics courses are administered through a section of the Department of Mechanical and Aerospace Engineering.

1350. GRAPHICS FOR ENGINEERS (2-3) 3 hours credit. Free-hand, instrumental, and computer graphics, including CAD systems 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 to solutions. Prerequisite or co-requisite: MATH 1426.

Engineering (ENGR)

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.

The following courses are administered through the Office of the Dean of Engineering.

2100, 3100, 4100. SUPERVISED ENGINEERING WORK EXPERIENCE 1 hour credit. These courses are for cooperative education students in engineering to be taken during the semester or summer they are employed. Each student will prepare a technical report based upon their work experience. Students who complete the COOP 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.

Aerospace Studies (Air Force ROTC)

2800 W. Lowden St., Fort Worth, TX • 817-257-7461 • www.afrotc.tcu.edu

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 Junior 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 may 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.** 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. AFROTC uniforms and textbooks are issued by the unit.

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 five-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. Students selected for the POC receive a monthly subsistence allowance. In addition, POC students are automatically awarded an incentive scholarship provided they meet all incentive requirements.

General Qualifications

A student enrolling in AFROTC must:

1. Be a full-time student (12 semester hours or more; 9 hours for postgraduate students)
2. Be a United States citizen
3. Be in good physical condition/health
4. Have good moral character
5. Be no older than 29 years old (up to 34 years old with waivers) upon commissioning

Scholarships

Air Force ROTC offers 4, 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 27 years of age as of June 30 of their commissioning year. 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 4-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. Those students who are offered an AFROTC scholarship with an SAT of 1100 or ACT of 24, and who attend TCU, may be offered a TCU Room and Board subsidy. Three-year scholarship winners with the above scores could possibly receive an additional semester of tuition paid if attending TCU.

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 where cadets can obtain front-seat and back seat flying time in Cessna aircraft for a small fee. Drill team, honor guard, Arnold Air Honor Society, Silver Wings Service Organization, and Officer Christian Fellowship are just a few social outlets for the cadets. Summer opportunities for cadets can include a paid visit to a military installation for 5 days, 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 30 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. AS 1000/2000-level courses may be taken with or in lieu of exercise and sport activities (EXSA) or marching band. 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 Walker

Adjunct Assistant Professors

Folmar, Hamblin, Robinson

Aerospace Studies (AS)

General Military Courses (GMC)

FOUNDATION OF THE UNITED STATES AIR FORCE (AS 1121 in the fall and 1122 in the spring) (1-0) 1 hour credit. 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 to communication skills. Leadership Laboratory (AS 1001) complements this course by providing cadets with followership experiences.

THE EVOLUTION OF USAF AIR AND SPACE POWER (AS 2121 in the fall and 2122 in the spring) (1-0) 1 hour credit. 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)

LEADERSHIP STUDIES (AS 3113 in the fall and 3123 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.

NATIONAL SECURITY AFFAIRS/PREPARATION FOR ACTIVE DUTY (AS 4113 in the fall and 4123 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.

1001 LEADERSHIP LABORATORY (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.



The College of Liberal Arts

The College of Liberal Arts

Interim Dean: Richard L. Cole, Ph.D.

210 University Hall • Box 19617 • 817-272-3291 • www.uta.edu/libarts

As 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, an education 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 capabilities in reading, communication, and thinking critically), but also address the meaning of human experience and expression. The study of human meanings leads to a grasp of means and ends and prepares the student for leadership in whatever profession or vocation he or she chooses. The education offered in the College of Liberal Arts is designed to help students live rich, purposeful, and effective lives in a challenging, complex, and increasingly technological environment.

The college promotes these goals in the following ways:

- By helping students 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 helping students prepare for professions or careers by offering specialized major programs; and
- By helping students understand and evaluate critically their cultural milieu—the attitudes and ideas that shape institutions and strategies in 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, and the cosmos; the various disciplines taken together offer the student an experience of the range of data, issues, and methods that may be integrated in a comprehensive and contemporary vision of 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 find the most satisfying way of living.

Programs

The College of Liberal Arts, in order to realize these objectives, offers programs of study in 13 academic units.

Art and Art History	History
Classical Studies	Linguistics
Communication	Music
Criminology and Criminal Justice	Philosophy
English	Political Science
Modern Languages	Sociology and Anthropology
	Theatre Arts

The School of Education, in cooperation with the College of Liberal Arts, offers programs leading to elementary, secondary, and all-level certification. The college also offers an interdisciplinary program leading to an undergraduate degree in interdisciplinary stud-

ies. Military Science offers a program that leads to a commission in the U.S. Army. There are also programs of study in the Centers for Post-Soviet and East European Studies, Mexican-American Studies, Southwestern Studies, and Women's Studies.

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 requirements more specifically and restrictively 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 language requirement. This requirement for the B.A. degree at U.T. 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.

Computer Use and Oral Communication Competencies

Students majoring in Liberal Art disciplines are also required to demonstrate computer use and oral communication competencies. 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.

Honors Degree in Liberal Arts

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. They must complete the major degree requirements and the requirements of the Honors College which include these Honors courses:

At least twenty-four (24) hours of Honors course work, overall:

At least two Interdisciplinary Seminars (6 hours) or Honors Special Topics Courses

At least nine (9) hours advanced Honors hours in a Liberal Arts Discipline:

Research Methods (3 hours) [or the Honors Research Colloquium or equivalent]

Senior Research Thesis/Creative Project (3 hours)

Select (3 hours)

Additional Honors hours (to complete 24 hours) to be chosen from special Honors sections of University core requirements, other Honors Interdisciplinary Seminars/Special Topics Courses, or Honors Electives.

GPA of 3.0.

The Honors degree requirements are compatible with all departmental and college requirements. See the Honors College section of this catalog for a listing of Honors courses and additional information.

Liberal Arts Major/ Business Administration Minor

It is possible for a student to combine an undergraduate major in a liberal arts discipline with a minor in business administration. Depending upon the student's major area and interests, and provided prerequisites have been fulfilled, any 18 hours, six of which must be advanced, may be selected from the College of Business Administration.

Liberal Arts majors planning to pursue a Master of Business Administration degree are advised to select a minor (18-24 semester hours) from the following courses: ACCT 2301, 2302, BUSA 2301, 2303, 3306, 3321, MANA 3319, FINA 3313, MARK 3321, and ECON 2305, 2306. In addition, MATH 1315 and 1316 are recommended to fulfill the mathematics requirement.

Completion of the above courses will allow the student, subject to normal graduate admission requirements, to reduce the foundation MBA program requirements. A student not completing all of the courses identified above will be required to enroll in the appropriate MBA foundation courses. All students minoring in business administration who may wish to pursue the MBA degree should consult with an Undergraduate Advisor in the College of Business Administration.

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 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 Art and Art History

335 Fine Arts Bldg. • Box 19089 • 817-272-2891 • www.uta.edu/art

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 both visual arts and art history. The curriculum provides the learning community with an extensive education in the fine arts, media arts, and art history 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 is comprised of three areas. Fine Arts, Media Arts and Art History are characterized by the expectation that students will be able to pursue and articulate an understanding of the diverse facets of art and culture. The Department of Art and Art History offers the Bachelor of Arts (B.A.) and Bachelor of Fine Arts (B.F.A.) degree programs.

Students working toward degrees in art or art history 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 can choose among such varied options as teaching, design, graphic communication, studio art, scientific illustration, curatorial and conservation work, museum direction and gallery management, art historical research, art journalism, and film or video production.

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. The B.F.A. degree has two emphases: Fine Arts (for students majoring in painting, drawing, printmaking, glass, sculpture, clay, or metals) and Media Arts (for students majoring in photography, graphic design, or film/video). The B.A. 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 for admission, students planning to be majors in Studio Art must also fulfill the following requirements:

- 12 hours of art foundation courses with a 2.5 GPA and/or a portfolio review by a departmental committee of three faculty members (representatives from Fine Arts, Media Arts, and the chair or assistant chair).
- For transfer students: 6 hours in the major with a 2.5 GPA and/or a portfolio review.

In addition to fulfilling University and the College of Liberal Arts requirements for admission, students planning to be majors in Art History must also fulfill the following requirements:

- 9 hours of art history courses (1309, 1310, and 2300) with a 3.0 GPA and/or paper review.
- For transfer students: ART 2300 and faculty review of work.

The Gallery at UTA is an exceptionally valuable resource for students in the department. It presents a full program of major exhibitions in its 4,000-square-foot gallery, including lectures, symposia, screenings, and publications.

Situated in the midst of two major metropolitan cities, each supporting a nationally significant cultural community, both the Department of Art and Art History and The Gallery extend and enhance their 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.

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 33 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 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.

Modern Language

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

42 hours to include 1309, 1310, 2300, three hours of studio art work, and 33 hours advanced art history, with at least one course chosen from each of the following three groups:

Group I (Ancient to Medieval): 3301, 3302, 3305, 3306, 3320, 4302, 4303, 4304, 4317.

Group II (Medieval to Modern): 3307, 3308, 3309, 3312, 3313, 3315, 3325, 3327, 3331, 4306, 4330.

Group III (Modern): 3310, 3311, 3313, 3314, 3315, 3331, 3389, 4310, 4314, 4315.

(An additional three hours of studio work may be included in these 33 advanced hours).

Minor

18 hours, at least six of which must be 3000/4000 level.

Total

128 hours, of which at least 36 must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Requirements for a Bachelor of Fine Arts Degree in Art

Students who are interested in a B.F.A. may choose from two areas of emphasis, fine arts or media arts. The fine arts emphasis expands aesthetic awareness, and develops personal expression in clay, drawing, glass, metals, painting, printmaking, and sculpture. The media arts emphasis explores concerns related to contemporary applications of graphic design, photography, and film/video.

Regardless of which emphasis is elected, students are advised to complete foundation requirements before beginning work in the concentration.

English

Six hours of composition.

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.

Modern Language

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**Foundation**

21 hours including 1309, 1310, two courses from 1304, 1305, 1306 and 2354; and three courses from 1307, 2308, 2355, 2358, 2359, and 2371.

Concentration

49 hours in the field of art/art history as recommended by the major advisor to include three hours of upper level 2-D courses from 2308, 2371, 3343, 3346, 3347, 3348, 3349, 3371, 4345, 4371, 4392; three hours of upper level 3-D courses from 3341, 3342, 3353, 3363, 3383, 4341, 4342, 4343, 4353, 4373; three hours of media courses (film/video, graphic design, photography) from 2350, 2354, 2355, 2358, 2359, 3351, 3352, 3354, 3355, 3358, 3360, 4344, 4349, 4350, 4351, 4352, 4354, 4355, 4356, 4357, 4358, 4359, 4360, 4361, 4362, 4363, 4364, 4392, 4397; and six hours of advanced art history in two different groups from the following:

Group I (Ancient to Medieval): 3301, 3302, 3305, 3306, 3320, 4302, 4303, 4304, 4317.

Group II (Medieval to Modern): 3307, 3308, 3309, 3312, 3313, 3315, 3325, 3327, 3331, 4306, 4330.

Group III (Modern): 3310, 3311, 3313, 3314, 3315, 3331, 3389, 3391, 3392, 4310, 4314, 4315.

Total

128 hours, of which at least 36 must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Minor in Art

Students interested in art as a minor (whether in studio, art history, or a combination of the two) should consult an Art Department advisor to determine the most advantageous selection of courses in the light of their interests and experience. With such consultation, departmental prerequisites may be waived for the purposes of a minor.

Computer and Oral Competency

Students majoring in Art or Art history are required to demonstrate computer use and oral communication competencies. Computer use proficiency can be demonstrated by ART 1304, Sight Sound and Perception; ART 2300, Methods for the Study of Art History; ART 3352, Computer Art; or ART 4358, Computer Graphics; OR by completion of the University administered computer competency exam. Oral communication competency can be demonstrated by (a) successful completion of ART 4100, Senior Exhibition; (b) successful completion of SPCH 1301, 2305, 3302, or 3315; or (c) completion of the University oral communication competency exam.

Department of Art and Art History Faculty

Chair

Professor Anderson

Professor

Wright

Associate Professors

Arday, Graham, Henderson, Keens, Maroney, North,
Plummer, Scott, Spurlock, Travis, Vaccaro, Wood

Assistant Professors

Huerta, Jolly, Ortiz, Palmeri

Art (ART)

Art Studio

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

1304. SIGHT, SOUND, AND PERCEPTION (2-4) 3 hours credit. The media arts with emphasis on color, light, sound, timing, and perception in electronic, photographic, and graphic arts media.

1305. VISUAL CONCEPTS (2-4) 3 hours credit. The principles and elements of two-dimensional design as expressed through concepts and problems with various media (including the computer) and techniques.

1306. FORM, SHAPE AND STRUCTURE (2-4) 3 hours credit (ARTS 1312). 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.

1307. DRAWING FUNDAMENTALS (2-4) 3 hours credit (ARTS 1316). 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. Formerly listed as ART 1347. Credit will not be granted for both 1307 and 1347.

It is strongly recommended that art and art history majors complete the core requirements or seek permission of the instructor before enrolling in upper level art courses.

2308. DRAWING CONCEPTS (2-4) 3 hours credit (ARTS 1317). 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 or permission of the instructor. Formerly listed as ART 1348. Credit will not be granted for both 1348 and 2308.

2350. INTRODUCTION TO NARRATIVE SCREENWRITING (2-4) 3 hours credit. Basic format styles, structures, and requisites of writing for film and television. Students will be required to study scripts, view films, conduct actor readings, produce original works, and complete other assignments. Prerequisites: ENGL 1301 and 1302.

2354. GRAPHICS: TYPOGRAPHY (2-4) 3 hours credit. Creative problem solving using basic elements of graphic communication with an introduction to typography, composition, and materials. Prerequisites: ART 1304 or 1305 or permission of the instructor.

2355. GRAPHICS: LAYOUT (2-4) 3 hours credit. Development and application of concept, layout, and design as related to graphic communication and advertising design. Prerequisites: ART 1304 or 1305 or permission of the instructor.

2358. INTRODUCTION TO FILM/VIDEO (2-4) 3 hours credit. Introduction to the video and filmmaking production process, techniques, history and aesthetics through the use of small format video, basic manual film, and basic (Adobe Premiere) digital (computer) video and audio editing. Students will write, produce and edit a number of short original works.

2359. INTRODUCTION TO PHOTOGRAPHY (2-4) 3 hours credit. Basic photographic imaging. Assignments emphasize an artistic approach and include black-and-white materials, darkroom procedure, and color transparencies.

2371. PAINTING (2-4) 3 hours credit. Fundamentals of painting, composition and techniques both traditional and contemporary. Prerequisite: ART 1305 and 1307 or permission of the instructor.

3340. KILN FORMED GLASS (2-4) 3 hours credit. 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.

3341. SCULPTURE (2-4) 3 hours credit. An exploration of sculptural forms, concepts, and methods through various media. Emphasis on contemporary processes and individual expression. May be repeated for credit. Prerequisites: ART 1306. For non-art majors, permission of the instructor.

3342. GLASSBLOWING. (2-4) 3 hours credit. The manipulation, formulation, construction and experimentation with glass as a sculptural medium. Emphasis will be on glassblowing. Other techniques may include furnace casting and kiln working. May be repeated for credit. Prerequisite: ART 1306 or permission of the instructor.

3343. PRINTMAKING (2-4) 3 hours credit. 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 photo-mechanical technologies. Prerequisites: ART 1305 and 1307 or permission of the instructor.

3346. PAPERMAKING (2-4) 3 hours credit. Procedures for the understanding and development of both Eastern and Western hand-made 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. Prerequisites: ART 1305 and 1306.

3347. ADVANCED DRAWING (2-4) 3 hours credit. Conceptual and expressive problems to encourage independent thinking with regard to contemporary drawing issues. May be repeated for credit. Prerequisite: ART 2308.

3348. LIFE DRAWING (2-4) 3 hours credit. 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.

3349. WATER MEDIA PAINTING (2-4) 3 hours credit. Transparent and opaque water color media and techniques. Emphasis on conceptual and manipulative skills. May be repeated for credit. Prerequisite: ART 1307 or permission of the instructor.

3351. GRAPHICS: ILLUSTRATION (2-4) 3 hours credit. A practical approach to concepts, history, mechanics and techniques in illustration with an emphasis on problem solving. May be repeated for up to 12 hours credit. Prerequisites: ART 2354 and 2355 or 3347 or 3371.

3352. COMPUTER ART (2-4) 3 hours credit. Advanced level 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.

3353. METALSMITHING: JEWELRY (2-4) 3 hours credit. 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.

3354. GRAPHICS: SIGN AND SYMBOL (2-4) 3 hours credit. Design and problem-solving focusing on transformation of visual elements into logos, logotypes, and information graphics. Prerequisites: ART 2354 and 2355 or permission of the instructor.

3355. GRAPHICS: METHODOLOGIES (2-4) 3 hours credit. Practical application of design methodologies to graphic communication and advertising design, with exposure to professional techniques and equipment including computers for graphics. Prerequisite: ART 3354 or permission of the instructor.

3356. GRAPHICS: ELECTRONIC DESIGN (2-4) 3 hours credit. Focus on design, typography, and layout with exposure to contemporary electronic and digital tools as applied in the graphics communication arts. May be repeated for credit. Prerequisite: ART 2354, 2355, or permission of the instructor.

3358. INTERMEDIATE FILM/VIDEO (2-4) 3 hours credit. 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. Prerequisite: ART 2358.

3360. INTERMEDIATE PHOTOGRAPHY (2-4) 3 hours credit. A continuation of ART 2359 with emphasis on advanced control of black-and-white photographic materials and the development of a deeper understanding of photographic history and criticism. Prerequisite: ART 2359.

3363. CLAY (2-4) 3 hours credit. 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.

3371. INTERMEDIATE PAINTING (2-4) 3 hours credit. 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 and 2371 or permission of the instructor.

3383. INTERMEDIATE CLAY (2-4) 3 hours credit. Continuation of ceramic media techniques and forming processes. The introduction of moldmaking, slipcasting, tile design, kiln firing, and glaze techniques. Prerequisite: ART 3363 or permission of the instructor.

4100. SENIOR EXHIBITION (1-0) 1 hour credit. Professional practices for graduating BFA art majors. Primary concentration will be exhibition preparation as well as senior BFA exhibition/presentation.

4341. ADVANCED SCULPTURE (2-4) 3 hours credit. 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.

4342. ADVANCED GLASS. (2-4) 3 hours credit. 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.

4343. ADVANCED CLAY (2-4) 3 hours credit. 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.

4344. ALTERNATIVE PHOTOGRAPHIC PROCESSES (2-4) 3 hours credit. 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. Prerequisite: ART 3360, or permission of the instructor.

4345. ADVANCED PRINTMAKING (2-4) 3 hours credit. 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. Prerequisites: ART 1305, 1307, and 3343 or permission of the instructor.

4346. GRAPHICS-PORTFOLIO PREPARATION (2-4) 3 hours credit. 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. Prerequisite: ART 3355, 4355, 4356, 4357, or permission of the instructor.

4347. GRAPHICS-BROCHURE DESIGN (2-4) 3 hours credit. This course is dedicated to the conceptualization, development, and execution of multiple page design including brochures and booklets. Prerequisite: ART 3355, 4355, 4356, 4357, or permission of the instructor. May be repeated for credit.

4349. VIDEO ART AND NEW GENRES (2-4) 3 hours credit. 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: ART 3358.

4350. DOCUMENTARY FILM/VIDEO (2-4) 3 hours credit. Using film and video as a tool for creative research, students will produce, write, direct and edit original documentaries or non-fiction films/videos under supervision of the instructor. May be repeated for credit. Prerequisites: ART 2358, 3358, 4362.

4351. COMMERCIAL FILM/VIDEO (2-4) 3 hours credit. 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. Prerequisites: ART 2358, 3358, 4362.

4352. NARRATIVE FILM/VIDEO (2-4) 3 hours credit. Narrative storytelling film/video techniques. Students write, produce, direct and edit original, short, narrative film/video projects under supervi-

sion of the instructor. May be repeated for up to six hours credit. Prerequisite: ART 2350, 2358, 3358, 4362.

4353. ADVANCED METALS (2-4) 3 hours credit. 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.

4354. ADVANCED NARRATIVE SCREENWRITING (2-4) 3 hours credit. A continuation of ART 2350 focusing on writing an original (no adaptations), narrative, full-length screenplay through all stages to final draft status. Students study screenplays, view films, conduct actor readings, and complete various other assignments. Prerequisite: ART 2350 or permission of the instructor. May be repeated for credit.

4355. GRAPHICS: APPLICATIONS (2-4) 3 hours credit. Exploration and application of graphic communication and advertising design as used in the communication arts, with continued exposure to computers and technical equipment. Prerequisite: ART 3355 or permission of the instructor.

4356. GRAPHICS: PROFESSIONAL PREPARATION (2-4) 3 hours credit. Further intensification of professional capabilities applied to graphic communication and advertising design. Emphasis on portfolio construction and complex professional skills. May be repeated for up to six hours credit. Prerequisite: ART 4355 or permission of the instructor.

4357. GRAPHICS: ADVERTISING DESIGN (2-4) 3 hours credit. Typography, layout, visualization, and conceptual problem-solving as applied to advertising. Students design individual ads and complete campaigns for electronic and print media. May be repeated for up to nine hours credit. Prerequisite: ART 2354 or ART 2355 or permission of the instructor.

4358. GRAPHICS: COMPUTER GRAPHICS (2-4) 3 hours credit. Computer techniques and mechanics as applied to graphic design and advertising design, with emphasis on using the computer as a problem solving tool. May be repeated for up to nine hours credit. Prerequisites: ART 3355 or permission of the instructor.

4359. ADVANCED PHOTOGRAPHY (2-4) 3 hours credit. This course encourages students to use a variety of photographic processes (B & W, 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. Prerequisite: Three hours to be selected from ART 4344, 4360, or 4363 or permission of the instructor.

4360. COLOR PHOTOGRAPHY (2-4) 3 hours credit. 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. Prerequisite: ART 3360, or permission of the instructor.

4361. ANIMATION TECHNIQUES (2-4) 3 hours credit. Intensive study of traditional cell animation, 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. Prerequisites: ART 2358, 3358, 4349, 4362.

4362. ADVANCED FILM/VIDEO (2-4) 3 hours credit. Advanced production techniques in an all-digital environment including AVID post-production with special emphasis in technical aesthetics, his-

tory and presentation. Students may elect to work in a variety of media (including 16mm, 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. Prerequisites: ART 2358, 3358, and permission of the instructor.

4363. STUDIO PHOTOGRAPHY (2-4) 3 hours credit. The theory and practice of situational photography. Studio lighting and large format camera techniques. May be repeated for up to six hours credit. Prerequisite: ART 3360, or permission of the instructor.

4364. COMMERCIAL PHOTOGRAPHY (2-4) 3 hours credit. Methods and techniques of advertising and commercial photography. Students will produce projects integrating technical concerns with commercial concepts. Emphasis on portfolio development. May be repeated for up to nine hours credit. Prerequisite: ART 4363, or permission of the instructor.

4366. GRAPHICS-ONLINE DESIGN (2-4) 3 hours credit. Concentrated study in the use of typography, layout, and visual problem-solving as applied to graphic design for online distribution (Internet and the World Wide Web). May be repeated for credit. Prerequisite: ART 2354, 2355, or permission of the instructor.

4371. ADVANCED PAINTING (2-4) 3 hours credit. 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. Prerequisite: ART 2308 and 3371 or permission of the instructor.

4373. ADVANCED THREE-DIMENSIONAL STUDIES (2-4) 3 hours credit. 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 listed as ART 4366. Credit will be granted for both 4366 and 4373.

4391, 4291, 4191. INDEPENDENT STUDY (Variable credit as arranged). Mature, capable students may be permitted to pursue individual art problems. Problems must be stated in writing, approved by supervising faculty member, and definite conference schedule arranged prior to registration. May be repeated for credit for varied subject matter. Prerequisite: B average in art concentration.

4392. SPECIAL STUDIES (2-4) 3 hours credit. 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.

4394. HONORS THESIS/SENIOR PROJECT (3-0) 3 hours credit. 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.

4395, 4695. ART INTERNSHIP (3 or 6 hours credit as arranged). 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.

4397. SPECIAL STUDIES IN FILM/VIDEO (2-4) 3 hours credit. 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 History

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

1301. ART APPRECIATION (3-0) 3 hours credit (ARTS 1301). Intended to develop an understanding, appreciation, and enjoyment of art in its many forms. Recommended as a fine arts elective for non-art majors.

1309. ART OF THE WESTERN WORLD I: GREECE THROUGH RENAISSANCE (3-0) 3 hours credit (ARTS 1303). Major developments in art, from Archaic Greece through the European Renaissance.

1310. ART OF THE WESTERN WORLD II: BAROQUE TO MODERN (3-0) 3 hours credit (ARTS 1304). The work of major figures in European and American art from the 17th century to the present.

It is strongly recommended that art and art history majors complete the core requirements or seek permission of the instructor before enrolling in upper level art history courses.

2300. METHODS FOR THE STUDY OF ART HISTORY (3-0) 3 hours credit. Sources and procedures of art historical research. Introduction to methodologies of art historical scholarship. Use of computer and data retrieval is emphasized.

3300. MUSEUM TECHNIQUES (2-4) 3 hours credit. A seminar in the administration and programming of contemporary art galleries and museums. Lectures and assigned readings in museum history and practice. Students enrolling in the seminar will participate in the design and installation of exhibits in the gallery of the Center for Research in Contemporary Art. Prerequisites: ART 1309 and 1310 or permission of the instructor. Previously listed as ART 4307; credit will be granted only once.

3302. ART OF ANTIQUITY (3-0) 3 hours credit. 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.

3305. EARLY CHRISTIAN AND BYZANTINE (3-0) 3 hours credit. The regeneration of art in the Mediterranean world under Christian and Oriental influences between the 2nd century and the 15th.

3306. BYZANTINE AND MEDIEVAL ART (3-0) 3 hours credit. 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.

3307. THE EARLY RENAISSANCE (3-0) 3 hours credit. 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.

3308. HIGH RENAISSANCE (3-0) 3 hours credit. 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.

3310. FILM AS ART (3-0) 3 hours credit. 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.

3311. AMERICAN ART (3-0) 3 hours credit. The role of art in the shaping of a national identity with emphasis on our beginnings and attention to vernacular and indigenous traditions.

3312. NEO-CLASSICISM AND ROMANTICISM (3-0) 3 hours credit. European painting from 1760 to 1840, primarily in France.

3313. BACKGROUNDS OF MODERN ART (3-0) 3 hours credit. Painting, sculpture, and photography of the period c. 1850-1900 in western Europe, focusing on Realism, Impressionism, Post-Impressionism and Symbolism (fin de siècle).

3314. MODERN ART (3-0) 3 hours credit. The history of European and American art from the late 19th century to World War II. Emphasis on the formal and conceptual evolution of modernism in art and society, and on the rise of the avant-garde.

3315. IMPRESSIONISM (3-0) 3 hours credit. The history, theory, and aesthetics of Impressionist painting in France, from 1860 to 1900.

3320. MESOAMERICAN ART (3-0) 3 hours credit. Art and architecture of the Aztecs, Maya, and other selected cultures of Mexico and Central America.

3325. STUDIES IN THE BAROQUE (3-0) 3 hours credit. 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.

3331. ENGLISH ART: EIGHTEENTH AND NINETEENTH CENTURIES (3-0) 3 hours credit. The great age of painting in England, from Hogarth, through Constable and Turner, to Burne-Jones, in the styles of Sensibility, Romanticism, Realism, and Pre-Raphaelitism.

3389. CONTEMPORARY ART (3-0) 3 hours credit. A focus on the period after World War II. A study of the aesthetics of late modernism and the beginnings of the postmodern period including Abstract Expression, Pop, Minimal, and Conceptual art, with emphasis on intermedia.

3391. HISTORY OF PHOTOGRAPHY (3-0) 3 hours credit. The history of still photography from its inception to the present. Emphasis on the conceptual and technical evolution of photography as an artistic medium.

3392. HISTORY AND AESTHETICS OF THE VIDEO IMAGE (3-0) 3 hours credit. 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.

4301. ART AND GENDER (3-0) 3 hours credit. 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 gendered representation of art in general, both male and female. Also listed as WOMS 4301; credit will be granted only once.

4302. GREEK AND ROMAN PAINTING (3-0) 3 hours credit. 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.

4303. ROMAN ART (3-0) 3 hours credit. 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 socio-political context of art and architecture in monuments of the Roman empire.

4304. THE ETRUSCANS (3-0) 3 hours credit. 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 orientaling and classical Greek styles that influenced Etruscan art from the 7th to the 4th Centuries BC.

4306. MID-RENAISSANCE (3-0) 3 hours credit. 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.

4308. MUSEUM PRACTICE (2-4) 3 hours credit. A continuation of ART 3300 with emphasis on current issues and developments in museum practice. The seminar concentrates on the University's Center for Research in Contemporary Art exhibitions and guest essayist programs, supplemented by lectures and assigned readings. Prerequisite: ART 3300 or permission of the instructor. May be repeated for credit.

4310. TOPICS IN FILM STUDY (3-0) 3 hours credit. 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 3310 or consent of the instructor.

4312. TOPICS IN 19TH C. ART. (3-0) 3 hours credit. 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: permission of the instructor.

4314. TOPICS IN TWENTIETH CENTURY ART (3-0) 3 hours credit. Topics from c. 1900 to c. 1970, such as Cubism, Expressionism, Dada and Surrealism, De Stijl and the Bauhaus, Abstract Expressionism, Pop Art, and Minimal Art. May be repeated for credit. Prerequisite: departmental permission.

4315. ASPECTS OF CONTEMPORARY ART (3-0) 3 hours credit. 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: departmental permission.

4317. THE ART OF OTHER TRADITIONS (3-0) 3 hours credit. Work in various media developed in isolation from the European tradition, with particular emphasis on Black African and Oceanic art.

4330. EIGHTEENTH CENTURY ART (3-0) 3 hours credit. A history of European art from the end of the Baroque era through the Rococo and Neo-Classical styles to the beginning of Romanticism. Emphasis will be on the painting of Watteau, Hogarth, Chardin, David and Goya.

4390. CONFERENCE COURSE: ART HISTORY (3-0) 3 hours credit. 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.

4394. HONORS THESIS/SENIOR PROJECT (3-0) 3 hours credit. 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.

4396. SPECIAL STUDIES IN ART HISTORY (3-0) 3 hours credit. 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.

Concepts and Issues in Art

3322. CURRENT PROBLEMS IN ART (3-0) 3 hours credit. Seminar on social, psychological, and cultural concerns affecting art. Selection and solution of individual topics and problems. May be repeated for up to nine hours credit.

Classical Studies

305 Carlisle Hall • Box 19527 • 817-272-3216 • www.uta.edu/philosophy/Classics_Program.html

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 Bachelor of Arts degree in Classical Studies coordinates courses in Greco-Roman antiquity taught by members of various departments in the College of Liberal Arts. Within the major, students may choose between two programs of study. The pre-professional track provides preparation for those students who intend to do graduate work in Classics or related fields; the general track provides a versatile liberal arts education in a comprehensive humanistic discipline.

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 modern language requirement for the Classical Studies degree and for liberal arts majors generally.

Requirements for Admission to a Major in Classics

Students may be admitted to the major in classics upon satisfaction of the following requirements:

- An overall 2.0 GPA, including at least 6 hours of the math and science requirement taken in residence or 12 hours of math and science overall.
- A minimum GPA of 2.5 at the time of admission to the major for all major courses applicable to the classics degree and for all Greek and Latin courses taken.
- A minimum of 6 hours of major courses applicable to the classics degree taken at U.T. Arlington.
- A writing sample approved by the Classics Coordinator. (See the Classics Coordinator for specific conditions on the writing sample and its grading.)

The Classics Coordinator must certify that these requirements have been satisfied. Admission to the Classics major may take place at any time that the requirements have been satisfied consistent with the requirements of the University.

Requirements for a Bachelor of Arts Degree in Classical Studies

(Pre-Professional Track)

English

Six hours of composition.

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.

History

1311, 1312.

Political Science

2311, 2312.

Modern Language

1441, 1442, 2313, and 2314 or equivalent in either Greek or Latin.

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.

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/political/cultural geography, social psychology, sociology and women's studies or other courses which have been approved by the Undergraduate Assembly. (See the undergraduate Classical Studies advisor for a list of recommended courses).

Electives

Sufficient to give the total number of hours required for the degree.

Major

32 hours to include:

Two semesters of language instruction beyond the fourth semester (2314) in one of the Classical languages (Greek or Latin), and two semesters of language instruction (1441, 1442) in the other Classical language;

At least 6 hours of courses with the CLAS prefix;

CLAS 3310 or HIST 3374;

CLAS 3320 or HIST 3375;

Four additional courses (at least two at the 3000/4000 level) from the courses listed below:

CLAS 1300, 2303, 2307, 3310, 3320, 3323, 4335, 4391, 4394

GREK 2313, 2314, 4391 (if the student's second language)

LATN 2313, 2314, 4302, 4335, 4391 (if the student's second language)

ANTH 2339, 3355, 3358

ART 3302

ENGL 3339, 4380

HIST 3374, 3375, 3380

PHIL 3301, 3302

POLS 4327

Students are encouraged to exercise the option of writing a senior thesis (CLAS 4394) at some time during their final year of study.

Optional Minor

Students may pursue a minor (18 hours, at least six of which must be 3000/4000 level) after filing a statement of intent with the undergraduate advisor.

Total

128 hours, at least 36 of which must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band, as required.

Requirements for a Bachelor of Arts Degree in Classical Studies (General Track)

English

Six hours of composition.

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.

History

1311, 1312.

Political Science

2311, 2312.

Modern Language

1441, 1442, 2313, and 2314 or equivalent.

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.

Social/Cultural Studies

Three hours from designated courses in archaeology, classical studies, communication, economics, history, humanities, linguistics, political science, psychology, sociology and women's studies or other courses which have been approved by the Undergraduate Assembly. (See the undergraduate Classical Studies 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 Classical Studies advisor and in light of individual aims and interests, students in the general track are urged to choose electives concentrated primarily in one or two areas of *secondary emphasis*—for example, administration, business, computer science engineering, education, linguistics, management, marketing, mathematics, philosophy, publishing, technical writing.

Major

27 hours to include:

At least 6 hours of courses with the CLAS prefix;

CLAS 3310 or HIST 3374;

CLAS 3320 or HIST 3375;

Additional courses (at least five at the 3000/4000 level) from the courses listed below:

CLAS 1300, 2303, 2307, 3310, 3320, 3323, 4335, 4391, 4394

GREK 1441, 1442, 2313, 2314, 4391

LATN 1441, 1442, 2313, 2314, 4301, 4302, 4335, 4391

ANTH 2339, 3355, 3358

ART 3302

ENGL 3339, 4380

HIST 3374, 3375, 3380

PHIL 3301, 3302

POLS 4327

Optional Minor

Students may pursue a minor (18 hours, at least six of which must be 3000/4000 level) after filing a statement of intent with the undergraduate advisor. It is recommended that students who wish to pursue a minor do so in either Greek or Latin (the introductory sequence plus two additional semesters of language instruction).

Total

120 hours, at least 36 of which must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band, as required.

Requirements for a Bachelor of Arts Degree in Classical Studies (Pre-Law Option)

Students interested in the Pre-Law Option must complete the requirements for the Pre-Professional Track degree in classics, while selecting their elective course work in consultation with the Classics/Pre-Law faculty advisor.

Oral Communication Competency

Students majoring in classics may demonstrate competency in oral communication 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 classics 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.

Classics (CLAS)

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.

All courses with the CLAS prefix are taught in English. There are no prerequisites unless otherwise specified.

1300. INTRODUCTION TO CLASSICAL MYTHOLOGY (3-0)

3 hours credit. Major Greek and Roman myths and their influence, with emphasis on the visual arts from antiquity to the present, including popular films.

2303. THE CLASSICAL ROOTS OF ENGLISH VOCABULARY (3-0)

3 hours credit. Etymology (word origins) focusing on the large stock of English words derived from ancient Greek and Latin prefixes, roots, and suffixes. Primarily for students seeking to improve their general vocabulary and reading comprehension.

2307. WOMEN IN THE ANCIENT WORLD (3-0)

3 hours credit. 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. Also listed as WOMS 2307.

3310. INTRODUCTION TO GREEK CIVILIZATION (3-0) 3 hours credit. Ancient Greek culture to the time of the Roman conquest. 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.

3320. INTRODUCTION TO ROMAN CIVILIZATION (3-0) 3 hours credit. Roman life and thought through 476 A.D. A broad cultural survey including politics and society, literature, art, technology, and law. Credit may not be received for both CLAS 2320 (as the course was previously numbered) and CLAS 3320.

3323. TOPICS IN CLASSICAL MYTHOLOGY (3-0) 3 hours credit. 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.

4335. TOPICS IN CLASSICAL STUDIES (3-0) 3 hours credit. 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.

4391. CONFERENCE COURSE (3-0) 3 hours credit. Independent study in the preparation of a paper on a research topic; consultation with instructor on a regular basis. May be repeated for credit. Prerequisites: consent of the department and completion of or concurrent enrollment in a 3000-level course.

4394. SENIOR THESIS (3-0) 3 hours credit. A thesis or project completed during the senior year under the direction of a faculty member.

Greek (GREK)

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.

1441. LEVEL I (3-2) 4 hours credit.

1442. LEVEL II (3-2) 4 hours credit. Prerequisite: GREK 1441 or equivalent.

2313. LEVEL III (3-0) 3 hours credit. Prerequisite: GREK 1442 or equivalent.

2314. LEVEL IV (3-0) 3 hours credit. Prerequisite: GREK 2313 or equivalent.

2391. INDEPENDENT STUDY (3-0) 3 hours credit. By consent of the department only.

4335. TOPICS IN GREEK LITERATURE (3-0) 3 hours credit. Close reading of one or more Greek texts, with attention both to grammatical precision and to interpretation. Prerequisite: ability to read unaltered Greek (i.e., successful completion of introductory sequence or equivalent).

4391. CONFERENCE COURSE (3-0) 3 hours credit. Advanced independent study in Greek literature. May be repeated for credit with departmental permission. Prerequisite: departmental permission.

Latin (LATN)

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

1441. LEVEL I (3-2) 4 hours credit (LATN 1411).

1442. LEVEL II (3-2) 4 hours credit (LATN 1412). Prerequisite: LATN 1441 or equivalent.

2313. LEVEL III (3-0) 3 hours credit (LATN 2311). Prerequisite: LATN 1442 or equivalent.

2314. LEVEL IV (3-0) 3 hours credit (LATN 2312). Prerequisite: LATN 2313 or equivalent.

2391. INDEPENDENT STUDY (3-0) 3 hours credit. By consent of the department only.

4301. INTENSIVE LATIN FOR READING I (3-0) 3 hours credit. Covers approximately the same material as LATN 1441/1442 (Levels I and II). Credit will not be granted for both.

4302. INTENSIVE LATIN FOR READING II (3-0) 3 hours credit. Covers approximately the same material as LATN 2313/2314 (Levels III and IV). Credit will not be granted for both.

4335. TOPICS IN LATIN LITERATURE (3-0) 3 hours credit. Close reading of one or more Latin texts, with attention both to grammatical precision and to interpretation. Prerequisite: ability to read unaltered Latin (i.e., successful completion of introductory sequence or equivalent).

4391. CONFERENCE COURSE (3-0) 3 hours credit. Advanced independent study in Latin literature. May be repeated for credit with departmental permission. Prerequisite: departmental permission.

For descriptions of courses applicable to the Classical Studies major that do not carry a CLAS, GREK, or LATN prefix, consult the listings of the relevant departments (Sociology and Anthropology, Art, English, History, Philosophy and Humanities, Political Science).

The Department of Communication

118 Fine Arts Bldg. • Box 19107 • 817-272-2163 • www.uta.edu/communication

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, broadcast news, broadcast management, communication technology, news-editorial journalism, visual journalism, public relations, organizational communication, and oral communication. Additionally, there are three specializations for teacher certification: secondary teaching level in journalism, secondary teaching level in speech communication, and elementary teaching level in speech communication. A suggested plan of study for each is available from the office of the Department of Communication.

Requirements for a Bachelor of Arts Degree in Communication

English

Six hours of composition.

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.

Modern Language

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).

Science

8 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, modern 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 adviser.

Total

128 hours, of which at least 36 must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Department of Communication Degree Programs

Advertising

JOUR 1345; ADVT 2337, 3304, 3305, 3306, 3307, and 4301. COMM 3300, 3303, 4310, and other COMM 4000-level course. Six hours electives in the department.

Broadcast Communication

Broadcast News

JOUR 1345, JOUR 2346, BCMN 1355, 2357, 2358, 2360, 3340, 3347, 3341 or 3350, 4340. COMM 3300, 4310.

Three hours electives in the department.

Broadcast Management

ADVT 2337, JOUR 1345, BCMN 2357, 2360, 3318, 3319, 4319 or 4360, 4320; COMM 3300, 4310, COMM 4000-level elective. Six hours electives in the department.

Communication Technology

JOUR 1345, COMM 2300, 3300, 3301, 3303, 4305, 4307, 4309, 4310, 4327; SPCH 3302. Six hours electives in the department.

Journalism

News-Editorial Journalism

JOUR 1345, 2340, 2346, 3328, 3345, 4378.

Six hours from the following courses: JOUR 3350, 4325, 4326 or 4327.

COMM 3300, 4305, 4310

Six hours electives in the department

Visual Journalism

JOUR 1345, 2340, 2346, 2347, 3341, 3345.

COMM 3300, 3301, 3303, 4307 and 4310, ART 2359.

Three hours electives in the department

Public Relations

JOUR 1345, 2346, and one of the following: JOUR 3345, 3350, 4326, 4327, COMM 4300, or PREL 4395.

PREL 2338, 3339, 3355, 4320, and 4316.

COMM 3300, 3303, and 4310.

Six hours electives in the department.

Speech

Organizational Communication

SPCH 1301, 2304, 2305, and 3309.

COMM 3300.

Six hours from SPCH 3310, 3316, 3320.

Six hours from SPCH 4300, 4315, 4320, 4322.

Six hours from COMM 4000-level courses (COMM 4315 recommended).

Six hours electives in the department.

Oral Communication

SPCH 1301, 2304, 3310.

COMM 3300.

SPCH 3312 or 4302.

Six hours from SPCH 3321, 3322, 3323.

Three hours from SPCH 4300, 4321, or 4360.

Six hours from COMM 4000-level courses (COMM 4315 recommended).

Nine hours electives in the department.

Teacher Certification

Department specializations which provide for teacher certification are the following: secondary teaching level in journalism, or speech communication; elementary teaching level in speech communication. Students interested in Texas Teacher Certification should consult the School 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 1300, 3300, and 4310.

JOUR 1345, 2340, 2346, 3335, and 3345.

JOUR 3350 or 4326.

Three additional hours of advanced JOUR.

- **Secondary certification, Speech Communication major requirements** (30 semester hours):

COMM 1300

SPCH 1301, 1302, 2304.

SPCH 3305 or 3307.

Six hours from SPCH 3321, 3322, or 3323.

Six hours from SPCH 3309, 3310, 3312, 3315, 3316 or 3320.

Three hours from SPCH 4300, 4302, 4321 or 4360.

- **Elementary certification, Speech Communication Specialization requirements** (30 semester hours):

COMM 1300.

SPCH 1301, 1302, 2304.

SPCH 3305 or 3307.

Six hours from SPCH 3321, 3322 or 3323.

Six hours from SPCH 3309, 3310, 3312, 3315, 3316, or 3320.

Three hours from SPCH 4300, 4302, 4321, or 4360.

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 (c) successful completion of one of the following: COMM 2300, 3303, JOUR 1345, PREL 3339, ADVT 3304, 3305, or 3306.

Oral communication proficiency can be demonstrated by (a) successful completion of SPCH 1301, 2305, 3302, 3315, or 4315; (b) passing the University proficiency test measuring oral communication competency; or (c) successful completion of one of the following: 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.

Department of Communication Faculty

Chair

Professor McCallum

Professor

Andresen

Associate Professors

Ingram, Markham Shaw, Stone

Assistant Professors

Coleman, Collins, Mwakikoti, Witt, Woods, Zwarun

Communication (COMM)

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

1300. INTRODUCTION TO COMMUNICATION (3-0) 3 hours credit (COMM 1307). Application of communication theories and principles to human communication; from the oral tradition to the printing press, photography, electronic media, and information technology.

2300. INTERNET COMMUNICATION (3-0) 3 hours credit. Basic Internet communication including e-mail, listserv, and chat; emphasis on advanced search strategies; application of communication theory to individual and mass media uses of the Internet; legal and ethical issues; basics of Web page design and publishing.

3300. COMMUNICATION TECHNOLOGY (3-0) 3 hours credit. 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.

3301. WEB SITE COMMUNICATION (3-0) 3 hours credit. Creation of communicative strategies via Web site design as used in organizations and mass media; design principles, information architecture, HTML language. Prerequisites: JOUR 1345, COMM 2300, COMM 3303 or permission of the instructor.

3303. COMMUNICATION GRAPHICS (3-0) 3 hours credit. 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 for COMM 4000-level courses: Junior standing.

4191. READINGS IN COMMUNICATION (1-0) 1 hour credit. Readings addressing contemporary issues in communication. Proficiency in writing and research skills emphasized. Primarily for Communications majors. Prerequisite: senior level standing and completion of 12 advanced hours in the department.

4300. COMMUNICATION RESEARCH (3-0) 3 hours credit. Introduction to communication research, design, and methodology. Readings and criticism in interpersonal, public address, and mass communication research; project required.

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.

4307. INTERNET GRAPHICS COMMUNICATION (3-0) 3 hours credit. 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. Prerequisites: COMM 2300, 3300, 3301, 3303, or permission of instructor.

4309. INTERNET MARKETING COMMUNICATION (3-0) 3 hours credit. Study of the use of information technology to optimize advertising, promotion, public relations, and sales functions. Examines an infrastructure of the Internet and how it affects information retrieval, a web design, Web site management, and Web site security. Discusses research strategies, usage trends, and social implications. Prerequisites: COMM 2300, 3300, 3301, 3303 or permission of the instructor.

4310. COMMUNICATION LAW AND REGULATIONS (3-0) 3 hours credit. Study of constitutional, statutory, and administrative regulations as applied to print media, broadcast media, the Internet, advertising, and film; rights, responsibilities, and ethics.

4315. COMMUNICATION THEORY (3-0) 3 hours credit. Study of communication theories; interpersonal, organizational, mass media, and intercultural.

4325. COMMUNICATION HISTORY (3-0) 3 hours credit. Evolution and trends in forms of human communication; development of symbols and media technology with attention to their effects on society.

4327. ADVANCED WEB SITE COMMUNICATION (3-0) 3 hours credit. Advanced study of mass media and organizational Web site information architecture, design, aesthetics, and Web site management; communication theory as applied to operational Web sites for profit and non-profit organizations. Prerequisites: COMM 3301, 4307, 4309 or permission of instructor.

4330. POLITICAL COMMUNICATION (3-0) 3 hours credit. Communication theories, principles, and strategies in modern political campaigns and events.

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.

4340. CORPORATE COMMUNICATION (3-0) 3 hours credit. 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.

4391. CONFERENCE COURSE (3 hours credit as arranged). Topic assigned on an individual basis, covering individual research or study in the designated areas. Can be taken more than once when topic varies. Prerequisite: permission of department.

4393. COMMUNICATION TOPICS (3-0) 3 hours credit. Seminar in interdisciplinary topics. Prerequisite: upper division standing. May be repeated when topics vary.

4394. HONORS THESIS/SENIOR PROJECT. 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.

Advertising (ADVT)

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

2337. INTRODUCTION TO ADVERTISING (3-0) 3 hours credit (COMM 2327). The role of advertising in society. Basic concepts include marketing message creation, budget determination, agency-client relationships, and social responsibility of advertisers.

3304. ADVERTISING STRATEGY (3-0) 3 hours credit. Strategic research, problem definition, planning, creativity, and ethics in advertising and public service announcements. Applying the techniques of research and the principles of communication and persuasion to the development of advertising objectives, strategy, and creative concepts. Prerequisites: JOUR 1345 and ADVT 2337.

3305. ADVERTISING MEDIA (3-0) 3 hours credit. Decision-making in selection and use of advertising media. Evaluation of media alternatives in terms of marketing objectives, audience analysis, cost, and editorial and program content. Selection of space time units and media schedules. Prerequisites: JOUR 1345 and ADVT 2337.

3306. ADVERTISING COPYWRITING (3-0) 3 hours credit. The theory and practice of developing appropriate messages to reach and influence target audiences. Integrating research, strategy, and audio/visual methodology into the creation of concepts and copy for the primary ad media. Includes consumer and business media and direct advertising. Prerequisites: JOUR 1345 and ADVT 2337.

3307. ADVERTISING CASE STUDIES (3-0) 3 hours credit. Advertising policy, procedure, strategies and implementation, case review, including media and agency decision-making, as well as client, consumer, industrial and institutional execution. Prerequisites: ADVT 3304 and 3305.

4301. ADVERTISING CAMPAIGNS (3-0) 3 hours credit. Advanced study of advertising, marketing, and communication theories. Development of advertising plans for specific business firms by students working as account service groups. Prerequisites: COMM 3303, ADVT 3304, 3305, 3306 and 3307.

4391. CONFERENCE COURSE (3 hours credit as arranged). Topic assigned on an individual basis, covering individual research or study in the designated areas. Can be taken more than once when topic varies. Prerequisite: permission of department.

4393. SPECIAL TOPICS (3-0) 3 hours credit. Special studies in advertising. Topic varies from semester to semester. May be repeated when topic changes, for a maximum of six credit hours. Prerequisite: permission of department.

4395. PROFESSIONAL INTERNSHIP (0-10) 3 hours credit. 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. Graded P/F.

Broadcast Communication (BCM N)

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.

1355. BROADCAST DICTION (3-0) 3 hours credit. 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.

2357. RADIO PRODUCTION (3-1) 3 hours credit. 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.

2358. TELEVISION WORKSHOP (2-2) 3 hours credit. Fundamentals of television broadcasting, including programming concepts, writing, lighting, and switching practices.

2360. INTRODUCTION TO BROADCASTING (3-0) 3 hours credit. 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.

3318. BROADCAST SALES (3-0) 3 hours credit. Process of developing an effective sales staff in the telecommunication industry. Sales policies, procedures, techniques, time-management, client relationships, closing, and sales service are discussed. Prerequisites: BCMN 2357.

3319. BROADCAST MANAGEMENT (3-0) 3 hours credit. 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. Prerequisites: BCMN 2357.

3340. ELECTRONIC NEWS (2-2) 3 hours credit. News writing and gathering for the electronic media; use of basic audio and video electronic equipment; editing of audio and video tapes of news stories for analysis and criticism. Prerequisite: BCMN 2357.

3341. PUBLIC AFFAIRS AND NEWS PROGRAMMING (3-0) 3 hours credit. Planning of public affairs and news programs; story ideas, news judgments, reporting, shooting, editing, and presentation. Prerequisite: BCMN 3340.

3347. BROADCAST WRITING AND REPORTING (3-0) 3 hours credit. Writing non-dramatic scripts for radio and television. Includes public service announcements, news, and program scripts. Prerequisite: JOUR 1345.

3350. TELEVISION REPORTING (2-2) 3 hours credit. Producing and reporting of news information for the television media. Students will participate in news gathering, writing, and shoot packaging for television. Prerequisite: JOUR 1345.

3355. BROADCAST ANNOUNCING I (2-2) 3 hours credit. 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. Prerequisites: BCMN 1355, 2357; BCMN 3357 recommended.

3356. BROADCAST ANNOUNCING II (2-2) 3 hours credit. Continued concentration on announcing and the interpretation of broadcast copy including vocal delivery, phrasing, and communication of meaning. Prerequisite: BCMN 3355.

3357. ADVANCED RADIO PRODUCTION (2-2) 3 hours credit. Development of production and announcing skills basic to professional broadcasting. Students perform a variety of broadcasting assignments. Prerequisites: BCMN 2357.

4319. BROADCAST PROMOTION (3-0) 3 hours credit. Emphasizes positioning a station among its competitors with respect to promotional and marketing plans designed to build and maintain an audience. Relationship of broadcast ratings to programming and sales. Prerequisite: appropriate junior level course in student's option.

4320. CURRENT ISSUES IN TELECOMMUNICATIONS (3-0) 3 hours credit. 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: appropriate junior level course completed in student's option.

4340. NEWS PRACTICUM (1-6) 3 hours credit. 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 3341 or 3356.

4360. ELECTRONIC MEDIA OPERATIONS (2-2) 3 hours credit. Application of programming theories and techniques to materials for release via RF/Cable/Satellite systems. Prerequisite: appropriate junior level course completed in student's option.

4391. CONFERENCE COURSE (3 hours credit as arranged). Topic assigned on an individual basis, covering individual research or study in the designated areas. Can be taken more than once when topic varies. Prerequisite: permission of department.

4393. SPECIAL TOPICS (3-0) 3 hours credit. Special studies in broadcasting. Topic varies from semester to semester. May be repeated when topics change, for a maximum of six credit hours. Prerequisite: permission of department.

4395. PROFESSIONAL INTERNSHIP (0-10) 3 hours credit. 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. Graded P/F.

Journalism (JOUR)

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

1345. WRITING FOR MASS MEDIA (2-2) 3 hours credit (COMM 2309). Writing techniques as applied to newspapers, broadcast media, the Internet, advertising, and public relations with practice in research and writing.

2340. PHOTOJOURNALISM I (2-2) 3 hours credit. Basic theory and techniques of photojournalism; introduction to electronic digital photography and editing; professional, technical, and esthetic values.

2346. REPORTING (2-2) 3 hours credit (COMM 2310). Complex journalistic stories with emphasis on ethics, interviewing, and writing of general news stories, features, and specialized stories. Prerequisites: JOUR 1345.

2347. PROFESSIONAL JOURNALISM PRACTICUM (3 hours credit as arranged). Individual research while shadowing a professional in the student's future field. Individual conference to be arranged. News-editorial and visual journalism sequence only. Prerequisite: JOUR 1345 for news-editorial sequence. JOUR 2340 for visual journalism sequence.

3328. PUBLIC AFFAIRS REPORTING (3-0) 3 hours credit. Research in planning and writing techniques required for covering such public affairs news sources as governmental offices, bureaus, and agencies. Experience in covering local governmental agencies. Prerequisite: JOUR 2346.

3335. STUDENT PUBLICATION ADVISORY PROCEDURES (3-0) 3 hours credit. Problem-solving approaches to sponsorship of student publications; editorial policies, advertising sales and promotions, business procedures, and staff motivation techniques.

3341. PHOTOJOURNALISM II (2-2) 3 hours credit. Advanced electronic imaging techniques as applied to newspapers, magazines, and public relations. Prerequisites: JOUR 2340.

3345. NEWS EDITING (2-2) 3 hours credit. The function of the editor and copy editor; extensive practice in newspaper page makeup, headline writing, and copy editing. Prerequisite: JOUR 2346.

3350. MAGAZINE WRITING AND EDITING (2-2) 3 hours credit. Theory and practice of magazine writing, editing and design. Prerequisite: JOUR 2346.

4325. ADVANCED WRITING AND REPORTING (3-0) 3 hours credit. Each semester this course focuses on the unique demands of a specialized form of journalism. Subjects may include sports reporting, business reporting, and writing for new media. May be repeated for credit when topic varies. Prerequisite: JOUR 2346 or permission of department.

4326. FEATURE WRITING (3-0) 3 hours credit. Nature, function, and structure of articles for magazines and newspapers. Research and interviewing techniques; extensive practice in writing. Prerequisite: JOUR 2346.

4327. OPINION AND PERSUASIVE WRITING (3-0) 3 hours credit. Reading and analysis of the forms of persuasive writing, including editorials, commentaries, reviews, and interpretive articles.

4341. PHOTOJOURNALISM III (2-2) 3 hours credit. Electronic imaging in news, illustrative, narrative, and essay formats. Readings in visual communication research, law, and ethics. Prerequisite: JOUR 3341.

4378. DEPTH REPORTING (3-0) 3 hours credit. Investigative and in-depth methods of newsgathering; extensive practice in writing. Prerequisite: JOUR 3328.

4391. CONFERENCE COURSE (3 hours credit as arranged). Topic assigned on an individual basis, covering individual research or study in the designated areas. Can be taken more than once when topic varies. Prerequisite: permission of department.

4393. SPECIAL TOPICS (3-0) 3 hours credit. Special studies in journalism. Topic varies from semester to semester. May be repeated when topics change, for a maximum of six credit hours. Prerequisite: permission of department.

4395. PROFESSIONAL INTERNSHIP (0-10) 3 hours credit. 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. Graded P/F.

Public Relations (PREL)

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.

2338. INTRODUCTION TO PUBLIC RELATIONS (3-0) 3 hours credit. Principles and methods of building goodwill and obtaining publicity; process of influencing public opinion; analysis of media; implementation of public relations programs.

3339. PUBLIC RELATIONS METHODS (2-2) 3 hours credit. 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 and JOUR 2346.

3355. PUBLIC RELATIONS CASE STUDIES (3-0) 3 hours credit. 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.

4316. PUBLIC RELATIONS CAMPAIGNS (3-0) 3 hours credit. The study of advanced public relations campaign strategies based on research techniques; campaign development, implementation and assessment. Prerequisites: PREL 3339 and 3355.

4320. PUBLIC RELATIONS MANAGEMENT (3-0) 3 hours credit. Public relations management decision-making in areas of operation, personnel, content, promotion, finance, and governmental regulations. Prerequisite: PREL 3339 and 3355.

4391. CONFERENCE COURSE (3 hours credit as arranged). Topic assigned on an individual basis, covering individual research or study in the designated areas. Can be taken more than once when topic varies. Prerequisite: permission of department.

4393. SPECIAL TOPICS (3-0) 3 hours credit. 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: permission of department.

4395. PROFESSIONAL INTERNSHIP (0-10) 3 hours credit. 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. Graded P/F.

Speech (SPCH)

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

0185. FORENSICS (0-4) 1 hour credit (SPCH 1144). 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 of the instructor.

1301. FUNDAMENTALS OF SPEECH (3-0) 3 hours credit (SPCH 1311). Stress on development of the individual's speaking abilities and confidence in a variety of speaking situations.

1302. VOICE AND DICTION (3-0) 3 hours credit (SPCH 1342). 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.

2304. GROUP COMMUNICATION PRINCIPLES (3-0) 3 hours credit. Principles and practice of effective interaction within small groups including meeting planning, agenda setting, conflict management, and decision making.

2305. BUSINESS AND PROFESSIONAL COMMUNICATION (3-0) 3 hours credit (SPCH 1321). 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.

3302. PROFESSIONAL AND TECHNICAL COMMUNICATION (3-0) 3 hours credit. Theory and practice in written and oral presentations with an emphasis on business and technical professions.

3305. ARGUMENTATION AND DEBATE (3-0) 3 hours credit. An advanced course in the development of effective argument. Research, presentation, and criticism of logic-based advocacy. Prerequisite: six hours of speech.

3307. SPEECH ACTIVITIES (3-0) 3 hours credit. Theory and practice of extracurricular activities in speech.

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.

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: SPCH 2304.

3312. BACKGROUNDS OF PUBLIC ADDRESS (3-0) 3 hours credit. 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 speech or permission of department.

3315. COMMUNICATION FOR EDUCATORS (3-0) 3 hours credit. 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.

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.

3320. INTERVIEW PRINCIPLES (3-0) 3 hours credit. Theory and research of interviewing as it relates to information-gathering and responses in broadcast communication, print media, surveys, and organizational environments. The psychology of question formulation and responses. Prerequisite: six hours of speech.

3321. ORAL INTERPRETATION OF PROSE (3-0) 3 hours credit. 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 speech or theatre.

3322. ORAL INTERPRETATION OF TEXTS (3-0) 3 hours credit. 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 speech or theatre.

3323. ORAL INTERPRETATION OF CHILDREN'S LITERATURE (3-0) 3 hours credit. Traditional oral interpretation principles and performance techniques as applied to various genres of children's literature. Prerequisite: six hours of speech or theatre.

Prerequisite for SPCH 4000-level courses: Appropriate 3000-level course completed in student's specialization.

4300. PERSUASIVE COMMUNICATION (3-0) 3 hours credit. 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.

4302. MODERN PUBLIC ADDRESS (3-0) 3 hours credit. Analysis of major 20th-century forms of public address and speakers. Application of various models for criticism and public address. Prerequisite: SPCH 3312.

4315. BUSINESS PRESENTATIONS (3-0) 3 hours credit. The role of internal and external informative presentations in business organizations. Extensive readings and practice with an emphasis on research, development, organization, and critical evaluation of oral and visual presentations. Prerequisite: appropriate 3000-level course completed in student's specialization.

4320. MANAGERIAL COMMUNICATION (3-0) 3 hours credit. Analysis of the role of the business manager; readings in research and theory with emphasis on problem-solving and motivation.

4321. READERS THEATRE (3-0) 3 hours credit. Readers interpret various kinds of literature for an audience. Analysis and criticism of literature are stressed. Prerequisite: SPCH 3321, 3322 or 3323.

4322. COMMUNICATION TRAINING AND DEVELOPMENT (3-0) 3 hours credit. 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.

4360. SPEECH DYNAMICS (3-0) 3 hours credit. Activities and theories involved in developing speaking and listening skills.

4391. CONFERENCE COURSE (3 hours credit as arranged). Topics assigned on an individual basis, covering research or study in the designated areas. Can be taken more than once when topic varies. Prerequisite: permission of department.

4393. SPECIAL TOPICS (3-0) 3 hours credit. Special studies in speech. Topics will vary from semester to semester. May be repeated once when topics vary. Prerequisite: permission of department.

4395. INTERNSHIP (0-10) 3 hours credit. 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. Graded P/F.

The Department of Criminology and Criminal Justice

362 University Hall • Box 19595 • 817-272-3318 • www.uta.edu/criminology/

The Department of Criminology and Criminal Justice 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 (1) general education courses required to provide a background in the liberal arts, (2) disciplinary courses that provide valuable theoretical and methodological perspectives, and (3) courses that examine various aspects of crime and the judicial, law enforcement, and correctional processes that have been developed to deal with the crime problem.

Requirements for a Bachelor of Arts Degree in Criminology and Criminal Justice

English

Six hours of composition.

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.

Modern Language

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

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

Core (Required)

Students majoring in criminology and criminal justice must complete CRCJ 2334 or equivalent, or have permission of advisor, before taking other criminology and criminal justice courses. CRCJ 3300, 3336, 3338, 3350, 3360, 4301, 4332, 4333, or 4380.

Major Electives

Twelve hours, at least nine of which must be CRCJ-prefix courses. CRCJ 2340, 2350, 3307, 3337, 3380, 3390, 4300, 4309, 4315, 4331 or 4332, 4345, 4352, 4387, 4388, 4389, 4390, 4394; HIST 4385; POLS 3331, 3333, 3335; PSYC 3303, 3318; SOCI 3322, 3357 and 4310.

Minor

18 hours, at least six of which must be 3000/4000 level.

Electives

Nine hours.

Total

127 hours, at least 36 of which must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Requirements for a Minor in Criminology and Criminal Justice

A minor in criminology and criminal justice consists of 18 semester hours, at least 12 of which must be 3000/4000 level. Students choosing to minor in this course of study are encouraged to complete CRCJ 2334 prior to taking other criminology and criminal justice courses.

Computer and Oral Competency

Computer Use: Students majoring in Criminology and Criminal Justice may demonstrate competency in computer use by taking either CSE 1301, BUSA 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.

Oral Communications: Students majoring in Criminology and Criminal Justice may demonstrate competency in oral communication by taking either SPCH 1301, 2305, 3302, 3315, or any other course approved by the Undergraduate Assembly for this purpose. They may also demonstrate competency by passing the University proficiency examination in oral communication.

Criminology and Criminal Justice Faculty

Chair

Associate Professor Bing

Assistant Professors

del Carmen, Guevara, Polk, Wan

Adjunct Associate Professor

MacKenna

Criminology and Criminal Justice (CRCJ)

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

1317. ISSUES IN CRIME AND CRIMINAL JUSTICE (3-0) 3 hours credit. Review of selected crime-related issues in contemporary American society. Examination of their implications for the criminal justice system and for the society of which it is a part. Issues selected by instructor.

2334. INTRODUCTION TO THE CRIMINAL JUSTICE SYSTEM (3-0) 3 hours credit (CRIJ 1301). 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.

2340. CRIMINAL INVESTIGATION (3-0) 3 hours credit (CRIJ 2314). 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.

2350. INTRODUCTION TO LAW ENFORCEMENT (3-0) 3 hours credit. 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.

3300. THEORETICAL CRIMINOLOGY (3-0) 3 hours credit. The methodological and theoretical perspectives of the social and biological sciences as integrated into the criminal justice system.

3307. INTRODUCTION TO SECURITY SYSTEMS (3-0) 3 hours credit. 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.

3336. LAW ENFORCEMENT MANAGEMENT AND ADMINISTRATION (3-0) 3 hours credit. Examines the principles of administration, management, politics and leadership with emphasis on their applicability to law enforcement planning, organization, direction, control and personnel management.

3337. ADVANCED CRIMINAL PROCEDURE (3-0) 3 hours credit. 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.

3338. JUVENILE JUSTICE SYSTEMS (3-0) 3 hours credit. 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.

3350. INTRODUCTION TO RESEARCH METHODS IN CRIMINOLOGY AND CRIMINAL JUSTICE (3-0) 3 hour credit. 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.

3370. INTRODUCTION TO FORENSICS (3-0) 3 hour credit. 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.

3380. ETHNIC AND GENDER ISSUES IN CRIMINAL JUSTICE (3-0) 3 hours credit. An overview of ethnic and gender issues focusing on victims, offenders, and professionals in the criminal justice system. Also listed as WOMS 3380; credit will be granted only once.

3390. VICTIMOLOGY (3-0) 3 credit hours. 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.

4300. EDUCATIONAL STRATEGIES FOR OFFENDER POPULATIONS (3-0) 3 hours credit. Design, implement, and evaluate educational curricular for offender populations. Special attention is given to diversity issues such as culture, ethnicity/race, religion, gender, and class.

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.

4309. PRIVATE SECURITY ADMINISTRATION (3-0) 3 hours credit. 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.

4310. ADVANCED LEGAL AND TECHNICAL WRITING (3-0) 3 hours credit. 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.

4315. CRIMINAL CAREERS AND BEHAVIOR SYSTEMS (3-0) 3 hours credit. Study and analysis of criminal syndicates, corporate crime, computer crime, criminal corporations, organized crime, and transnational criminal operations.

4331. CORRECTIONAL LAW (3-0) 3 hours credit. Major civil liberties issues associated with institutional and community-based supervision of adult and juvenile offenders. Includes statutes, jail standards, case law, constitutional rights, recommended standards by professional groups and government commissions. Recent and future trends are examined.

4332. COMMUNITY CORRECTIONS (3-0) 3 hours credit. 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.

4333. INSTITUTIONAL CORRECTIONS (3-0) 3 hours credit. Examination and evaluation of practices, issues, and trends in institutional corrections. Emphasis is on administration, organization, and effectiveness of incarceration.

4345. CRIME AND THE CRIMINAL JUSTICE SYSTEM IN THE MEDIA (3-0) 3 hours credit. 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.

4352. TERRORISM AND MASS VIOLENCE (3-0) 3 hours credit. 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.

4380. COMPARATIVE CRIMINAL JUSTICE SYSTEMS (3-0) 3 hours credit. 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.

4386. TOPICS IN CORRECTIONS (3-0) 3 hours credit. 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.

4387. TOPICS IN CRIME AND CRIMINOLOGY (3-0) 3 hours credit. 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.

4388. TOPICS IN LAW AND JUDICIAL PROCESSES (3-0) 3 hours credit. 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.

4389. TOPICS IN LAW ENFORCEMENT AND PRIVATE SECURITY (3-0) 3 hours credit. 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.

4390. INTERNSHIP IN CRIMINAL JUSTICE (3-0) 3 hours credit. 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. Formerly listed as CRCJ 4394; credit will be granted only once. Prerequisite: permission of the instructor.

4391, 4291, 4191. CONFERENCE COURSE IN CRIMINAL JUSTICE (Variable credit). 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.

4394. HONORS THESIS/SENIOR PROJECT (3-0) 3 hours credit. 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.

The Department of English

203 Carlisle Hall • Box 19035 • 817-272-2692 • www.uta.edu/english

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 Language

1441, 1442, 2313, and 2314 or equivalent.

Political Science

2311, 2312.

History

1311, 1312, and six hours of English 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 include ENGL 1301 and 1302 (or waivers for advanced standing).

Any two of the following four 2000-level literature courses: ENGL 2303, 2309, 2319, 2329.

30 hours of 3000-4000 level courses. At the 3000-level, the following are required: ENGL 3340, 3351 or 3352, and 3361 or 3362, plus 3371 and 3384. In addition to these required courses, majors are required to take 15 hours of 3000/4000-level literature, literary criticism, rhetoric or theory courses. Before taking advanced work in English, students must apply to the Department of English for an officially designated advisor who will help them prepare their programs.

Minor

18 hours, at least six of which must be 3000/4000 level.

Total

128 hours, of which at least 36 must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Teacher Certification

Students wishing to take a Bachelor of Arts Degree in English with Elementary or Secondary Teacher Certification must complete 36 hours in English as follows:

- ENGL 1301 and 1302 (or waivers for advanced standing).
- Any two of the following four 2000-level literature courses: ENGL 2303, 2309, 2319, 2329.
- 24 hours of advanced courses. At the 3000 level, all of the following are required: ENGL 3340, 3351 or 3352, and 3361 or 3362, plus 3371 and 3384.
- Certification majors are required to take ENGL 4365 (for Elementary Certification) or ENGL 4370 (for Secondary Certification) and six additional hours of 3000/4000-level English courses.
- The requirement of six hours of English history (see B.A. degree) does not pertain to students obtaining teacher certification.

Students interested in Texas Teacher Certification should consult the School of Education section of this catalog for other requirements and 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.

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.

Required Courses for Students Selecting the Writing Option:

English 3371.

Nine hours advanced writing electives.

Competence in Oral Presentations

Students obtaining a Bachelor of Arts degree in English can demonstrate oral proficiency by passing SPCH 1301, SPCH 1302, SPCH 2305, or SPCH 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.

Department of English Faculty

Chair

Associate Professor Morris

Professors

Danahay, Estes, Faris, Kellner,
T. Porter, Roemer, Vitanza, Wood

Associate Professors

Alaimo, Barros, Cohen, Frank,
Lacy, L. Porter, Reddick, Smith

Assistant Professors

Gustafson, Ryan, Sudan

English (ENGL)

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

0300. READING COMPREHENSION AND WRITING INSTRUCTION (3-1) 3 hours credit. Offers assistance to students who require remediation for either the reading or writing section of TASP. Instruction in comprehending college-level reading material and principles of writing short academic essays in standard written English. This course may not be substituted for any other English course. Credit in this course does not fulfill any degree requirement. TASP Test Preparation Lab required. Includes sample TASP tests, test taking strategies, and computerized instructions in reading and writing.

0301. ESL READING INSTRUCTION AND WRITING COMPREHENSION (3-1) 3 hours credit. Offers assistance to students who require developmental education for either the reading or writing section of TASP. Instruction in comprehending college-level reading material and principles of writing short academic essays in standard written English. For ESL (English as a Second Language) students. This course may not be substituted for any other English course. Credit in

this course does not fulfill any degree requirement. TASP Test Preparation Lab required. Includes sample TASP tests, test taking strategies, and computerized instructions in reading and writing.

1301. CRITICAL THINKING, READING, AND WRITING I (3-0) 3 hours credit (ENGL 1301). 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.

1302. CRITICAL THINKING, READING, AND WRITING II (3-0) 3 hours credit (ENGL 1302). 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: ENGL 1301.

Information on Sophomore Courses

When registering for the second year of college English, students should consult their course outlines printed elsewhere in this catalog. In general, students may register for any two 2000 English subjects in any order. Transfer students who already have sophomore English credit should not register for additional sophomore English courses before seeing a department counselor. Unless otherwise indicated, six hours of freshman English credit is prerequisite to all 2000-level courses, and six hours of sophomore English credit is prerequisite to all 3000- or 4000-level courses. However, students who complete three hours of sophomore literature with a grade of A may choose to substitute a 3000-level course in place of the other three-hour sophomore requirement.

2303. TOPICS IN LITERATURE (3-0) 3 hours credit. May include topics in film and literature, women in literature, short story, and autobiography. May be repeated for credit when content changes.

2305. INTERMEDIATE HONORS EXPOSITION (3-0) 3 hours credit. 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.

2309. WORLD LITERATURE (3-0) 3 hours credit (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. Prerequisites: ENGL 1301, 1302.

2319. BRITISH LITERATURE (3-0) 3 hours credit (ENGL 2322). 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. Prerequisites: ENGL 1301, 1302.

2329. AMERICAN LITERATURE (3-0) 3 hours credit (ENGL 2327). 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. Prerequisites: ENGL 1301, 1302.

2371. HONORS AMERICAN LITERATURE I (3-0) 3 hours credit. 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. Prerequisites: ENGL 1302 or equivalent exam credit; membership in the Honors College.

2372. HONORS AMERICAN LITERATURE II (3-0) 3 hours credit. 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. Prerequisites: ENGL 1302 or equivalent exam credit; membership in the Honors College.

Information on Advanced Courses

The prerequisite for all the following courses is six credit hours of sophomore (2000) English.

3300. SPECIAL TOPICS IN LITERATURE (3-0) 3 hours credit. 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.

3301. NINETEENTH-CENTURY RUSSIAN LITERATURE IN TRANSLATION (3-0) 3 hours credit. Study of representative works of the major Russian writers from Pushkin through Chekhov. Also listed as RUSS 3301; credit will be granted in only one department.

3306. TWENTIETH-CENTURY RUSSIAN LITERATURE IN TRANSLATION (3-0) 3 hours credit. 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.

3339. CLASSICAL BACKGROUNDS (3-0) 3 hours credit. Literature of the Greco-Roman world including, but not limited to, the *Odyssey*, selected Greek tragedies, the *Aeneid*, the *Metamorphoses*, and selected lyrics, epigrams, and satires.

3340. HISTORY OF AMERICAN LITERATURE (3-0) 3 hours credit. American literature from its beginnings as related to the development of American culture; may include the study of canon formation.

3341. AMERICAN DRAMA (3-0) 3 hours credit. Dramatic structure and techniques, as well as the study of drama in its cultural contexts.

3342. AMERICAN POETRY (3-0) 3 hours credit. 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.

3344. NATIVE AMERICAN LITERATURE (3-0) 3 hours credit. Offers an introduction to American Indian literatures or focuses on a particular genre, period or topic.

3345. AFRICAN-AMERICAN LITERATURE (3-0) 3 hours credit. Offers an introduction to African-American literature or focuses on a particular genre, period or topic.

3346. MEXICAN-AMERICAN LITERATURE (3-0) 3 hours credit. Offers an introduction to Mexican-American literature or focuses on a particular genre, period or topic.

3351. HISTORY OF BRITISH LITERATURE I (3-0) 3 hours credit. British literature and language from their origins through the 18th century, as they relate to the development of British culture.

3352. HISTORY OF BRITISH LITERATURE II (3-0) 3 hours credit. British literature from the Romantic period to the present, as it relates to the development of British culture.

3361. HISTORY OF WORLD LITERATURE I (3-0) 3 hours credit. Examines the literature of the world, from antiquity to 1700.

3362. HISTORY OF WORLD LITERATURE II (3-0) 3 hours credit. Examines the literature of the world, from 1700 to the present.

3370. WOMEN IN LITERATURE (3-0) 3 hours credit. Works by women writers and/or images of women in literature. May be repeated for credit as subject matter changes. Also listed as WOMS 3370; credit will be granted in only one department.

3371. ADVANCED EXPOSITION (3-0) 3 hours credit. 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.

3372. COMPUTERS AND WRITING (3-0) 3 hours credit. An advanced writing course, conducted in a computerized classroom. An emphasis on rhetorical analyses of electronic discourse and writing in electronic environments.

3374. WRITING, RHETORIC, AND MULTIMEDIA AUTHORING I (3-0) 3 hours credit. Introduction to the rhetorical structure of multimedia. An emphasis on composing writing-intensive and research-oriented projects for academic, business, and/or creative audiences. Prerequisites: ENGL 1301 and 1302 or equivalent.

3375. LITERARY WRITING (3-0) 3 hours credit. Focuses on the conventions of narrative, poetic and dramatic works for print and electronic discourses. Attention to figurative language, characterization, dialogue, point of view, and poetic structure as well as hypertext and multimedia. Assignments may include the writing, design, and development of character sketches, short stories, poetry, one-act plays, advertisements, and World-Wide-Web audios and videos.

3384. STRUCTURE OF MODERN ENGLISH (3-0) 3 hours credit. Introduction to the grammatical structure of modern English at the level of the word, clause, and discourse, with applications for effective writing.

3385. SPECIAL TOPICS IN RHETORIC (3-0) 3 hours credit. 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.

3390. HONORS COLLOQUIUM (3-0) 3 hours credit. 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.

4301. HISTORY AND DEVELOPMENT OF THE ENGLISH LANGUAGE (3-0) 3 hours credit. The sounds and structure of the English language from pre-history to the present.

4307. TOPICS IN AMERICAN LITERATURE BEFORE 1800 (3-0) 3 hours credit. 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.

4308. SELECTED AMERICAN AUTHORS AFTER 1910 (3-0) 3 hours credit. An intensive study of one to three authors. May be repeated for credit as course content changes.

4311. AMERICAN LITERATURE, 1800-1860 (3-0) 3 hours credit. 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.

4312. AMERICAN LITERATURE, 1860-1910 (3-0) 3 hours credit. 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.

4313. AMERICAN LITERATURE 1900-PRESENT (3-0) 3 hours credit. Examines modern and contemporary literary movements in their cultural contexts. Genres studied may include fiction, poetry, drama, and literary criticism.

4321. MEDIEVAL BRITISH LITERATURE (3-0) 3 hours credit. 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.

4322. SIXTEENTH-CENTURY BRITISH LITERATURE (3-0) 3 hours credit. Poetry, prose, and drama of the 16th century. The works of Spenser, Sidney, or the sonneteers may be emphasized.

4323. SEVENTEENTH-CENTURY BRITISH LITERATURE (3-0) 3 hours credit. Seventeenth century prose, poetry, drama. May include a study of Milton.

4324. RESTORATION AND EIGHTEENTH-CENTURY LITERATURE (3-0) 3 hours credit. Literature of England from 1660 to 1798, centering on various representative works with attention to literary forms and historical contexts.

4325. CHAUCER (3-0) 3 hours credit. Works of the 14th-century English poet Geoffrey Chaucer. Examination of his works, intellectual milieu, and literary influence.

4326. SHAKESPEARE (3-0) 3 hours credit. Selected plays by Shakespeare in their historical and literary context. May include his nondramatic works.

4330. ADVANCED LITERARY WRITING (3-0) 3 hours credit. Workshop focusing on the art of narrative, poetic, and dramatic works for print and electronic discourses. Attention to the conception, design, and execution of the whole work, rather than to its components. Possible assignments include the writing, design and development of character sketches, short stories, poetry, one-act plays, advertisements and World-Wide-Web audios and videos. Prerequisite: ENGL 3375.

4331. THE BRITISH ROMANTICS (3-0) 3 hours credit. 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.

4332. THE VICTORIANS (3-0) 3 hours credit. Literature of England, 1830-1900. May focus on major figures, major themes, or issues in social, ethical, and aesthetic thought.

4333. LITERARY GENRES (3-0) 3 hours credit. May include such topics as modern British drama, the continental novel, patterns of narrative. May be repeated for credit as course content changes.

4334. SPECIAL TOPICS: THEMES IN BRITISH LITERATURE (3-0) 3 hours credit. 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.

4336. SPECIAL TOPICS IN AMERICAN LITERATURE (3-0) 3 hours credit. Important themes, movements, regions, genres, or cross-cultural relationships. May be repeated for credit when course content changes.

4337. SPECIAL TOPICS: THEMES IN COMPARATIVE LITERATURE (3-0) 3 hours credit. May include such topics as literature and psychoanalysis or literature and revolution. May be repeated for credit as course content changes.

4338. TWENTIETH-CENTURY BRITISH LITERATURE (3-0) 3 hours credit. 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.

4339. RHETORIC AND COMPOSITION (3-0) 3 hours credit. Focuses on the historical development of rhetorical practices from the classical to the contemporary period. Emphasis is on the study of style and the methods of discovering and developing topics, determining audiences, and organizing discourses. Assignments include the writing of both informative and argumentative discourse.

4340. LITERATURE BY WOMEN (3-0) 3 hours credit. 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. Also listed as WOMS 4340; credit will be granted in only one department.

4355. LITERARY CRITICISM I (3-0) 3 hours credit. 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.

4356. LITERARY CRITICISM II (3-0) 3 hours credit. Readings, discussion, and practical application of outstanding 20th-century methodologies, such as New Criticism, Formalism, and Structuralism. Formerly listed as 3327. Credit cannot be received for both 3327 and 4356.

4365. CHILDREN'S LITERATURE (3-0) 3 hours credit. A survey of literature for children; analysis of outstanding authors and illustrators of that literature. Designed for prospective elementary teachers. Prerequisites: EDUC 4301, 4340. Formerly listed as 3365. Credit cannot be received for both 3365 and 4365.

4370. THEORY AND PRACTICE: READING/COMPOSITION (3-0) 3 hours credit. A series of workshops in the theory and practice of reading and composition.

4371. ARGUMENTATIVE WRITING (3-0) 3 hours credit. Emphasis on writing that aims to persuade and convince. Attention to invention (including names and brands), audience (demographics), logic (deductive, inductive, dialectic, the Toulmin model and non-discursive), to case construction and story boarding, and to ethical and audience appeal. Assignments focus on various forms of persuasive and argumentative discourses, including advertising, political oratory, and editorials, and may be prepared in appropriate electronic formats such as hypertext and multimedia for the World Wide Web.

4374. WRITING, RHETORIC, AND MULTIMEDIA AUTHORING II (3-0) 3 hours credit. Advanced study of the rhetorical structure of multimedia. An emphasis on composing writing-intensive and research-oriented projects for academic, business, and/or creative audiences. Prerequisite: ENGL 3374 or permission of the instructor.

4380. CLASSICAL LITERATURE (3-0) 3 hours credit. Greek and Roman masterpieces of prose and poetry, especially those which most deeply affected the development of Western literature.

4381. MEDIEVAL LITERATURE (3-0) 3 hours credit. 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.

4382. RENAISSANCE AND BAROQUE LITERATURE (3-0) 3 hours credit. 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.

4383. NEOCLASSICISM AND ROMANTICISM (3-0) 3 hours credit. 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.

4384. REALISM AND NATURALISM (3-0) 3 hours credit. 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.

4385. MODERNISM (3-0) 3 hours credit. Major works of the early and mid-twentieth century in Europe that belong to the movement known as "modernism." May include study of Freud and literature, Impressionism, Surrealism, and Existentialism.

4386. DANTE (3-0) 3 hours credit. In depth study of the *Commedia* and of *La Vita Nuova* as the culminating works of the Middle Ages.

4387. CONTEMPORARY LITERATURE (3-0) 3 hours credit. Contemporary literary forms and movements.

4388. MAJOR FIGURES IN COMPARATIVE LITERATURE (3-0) 3 hours credit. Works by writers who have contributed significantly to world literature. May be repeated for credit with departmental permission.

4390. INTERNSHIP IN ENGLISH (0-9) 3 hours credit. 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. Prerequisite: academic good standing, junior or senior status, and permission of Internship Director and department.

4391. LITERATURE CONFERENCE COURSE (3-0) 3 hours credit. Requires permission of the department chair and the instructor.

4394. HONORS THESIS/SENIOR PROJECT (3-0) 3 hours credit. 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.

The Department of History

202 University Hall • Box 19529 • 817-272-2861 • www.uta.edu/history

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.

Requirements for a Bachelor of Arts Degree in History

English

Six hours of composition.

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.

Modern Language

1441, 1442, 2313, and 2314 or equivalent.

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).

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, 3345, 3348, 3349, 3350, 3351, 3352, 3353, 3354, 3355, 3356, 3357, 3358, 3359, 3360, 3361, 3362, 3363, 3364, 3365, 3367, 3368, 3370, 3372, 3373.

Group B: Advanced Non-U.S. History

3374, 3375, 3378, 3380, 3382, 3383, 3384, 4345, 4348, 4349, 4350, 4351, 4352, 4354, 4355, 4356, 4357, 4358, 4359, 4360, 4361, 4362, 4365, 4366, 4367, 4368, 4369, 4374, 4375, 4378, 4382, 4385.

(3309, 3319, 3350, 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

128 hours, at least 36 of which must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

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 as a history educator at the elementary or secondary level should consult the history advisor for information concerning the U.T. Arlington School of Education entrance requirements and the State of Texas requirements. This should be done early in the student's academic career.

Bachelor of Arts Degree in History (Pre-Law Option)**English**

Six hours of composition.

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.

Political Science

2311, 2312; and six hours chosen from 3330, 3331, 3333, 3335, 4331, 4332.

Modern Language

1441, 1442, 2313, and 2314 or equivalent.

Mathematics

Six hours, 1302 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

SOCI 3313 or 3357.

Criminal Justice

Six 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

124 hours, at least 39 of which must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or marching band or ROTC as required.

Bachelor of Arts Degree in History (Minority Studies Option)

Students selecting this option will be expected to work closely with the faculty advisor, appointed during their first year, in choosing a program. 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 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

12 hours from Minority Studies list from at least two departments other than major and minor (see advisor for list); 4 hours of EXSA/DNCA, ROTC, marching band and others as needed to complete 128 academic hours.

Bachelor of Arts Degree in History (Women's History Option)

Students selecting this option will be expected to work closely with the faculty advisor, appointed during their first year, in choosing a program. 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 300-4000 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 128 academic hours plus 4 hours EXSA/DNCA or ROTC or marching band.

Oral Communication Competency

Students majoring in History may demonstrate competency in oral communication by taking either SPCH 1301, SPCH 2305, SPCH 3302, SPCH 3315, or any other course approved by the Undergraduate Assembly for this purpose. They may also demonstrate competency by passing the University proficiency examination in oral communication.

Computer Use Competency

Students majoring in History may demonstrate competency in computer use by taking either CSE 1301, BUSA 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.

Department of History Faculty**Chair**

Professor Kyle

Professors

Buisseret, Fairbanks, Francaviglia, Green, Palmer, Philp, Reinhartz, Rodnitzky

Associate Professors

Anders, Cawthon, Goldberg, Haynes, Jalloh, Maizlish, Morris, Narrett, Reinhardt

Assistant Professors

Adam, Cole, Prewitt, Ramsey, Treviño

Adjunct Professor

Saxon

Senior Lecturer

Bolsterli

History (HIST)

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

1311. HISTORY OF THE UNITED STATES (3-0) 3 hours credit (HIST 1301). 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.

1312. HISTORY OF THE UNITED STATES (3-0) 3 hours credit (HIST 1302). 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.

2301. HISTORY OF CIVILIZATION (3-0) 3 hours credit (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.

2302. HISTORY OF CIVILIZATION (3-0) 3 hours credit (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.

2311. AMERICAN STUDIES (3-0) 3 hours credit. Main currents in American thought, colonial times to the Civil War. Intellectuals and the ideas, texts, music, machines, art, and architecture they produced. Taught in conjunction with designated sections of American literature and government as a course in the Honors College. Prerequisite: participation in the Honors College.

2312. AMERICAN STUDIES (3-0) 3 hours credit. Main currents in American thought, Civil War to the present. Intellectuals and the ideas, texts, music, machines, art, and architecture they produced. Taught in conjunction with designated sections of American literature and government as a course in the Honors College. Prerequisite: participation in the Honors College.

2313. HISTORY OF ENGLAND (3-0) 3 hours credit. The history of Britain from prehistoric times to 1688. The development of English laws and institutions. Required of all pre-law majors. Formerly listed as 1313. Credit cannot be received for both 2313 and 1313.

2314. HISTORY OF ENGLAND (3-0) 3 hours credit. 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. Formerly listed as 1314. Credit cannot be received for both 1314 and 2314.

There is no distinction between 3000/4000-level courses in history. The prerequisite for all of the following courses is six hours in social science. It is strongly recommended that history majors complete the core requirements before enrolling in upper level history courses.

3300. INTRODUCTION TO HISTORICAL RESEARCH (3-0) 3 hours credit. Introduction to the methods that historians use to conduct research and present their findings in written and oral form. Required for history majors.

3309. WOMEN AND WORK, 1600 TO THE PRESENT (3-0) 3 hours credit. 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. Also listed as WOMS 3309; credit will be granted only once.

3310. U.S. WOMEN'S HISTORY TO 1860 (3-0) 3 hours credit. 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. Also listed as WOMS 3310; credit will be granted only once.

3311. U.S. WOMEN'S HISTORY 1860 TO PRESENT (3-0) 3 hours credit. American women in politics, work and society since 1860, focusing on race and class and women's struggles for rights and liberation. Also listed as WOMS 3311; credit will be granted only once.

3315. WORK AND LEISURE IN THE UNITED STATES (3-0) 3 hours credit. 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.

3317. AMERICAN LEGAL AND CONSTITUTIONAL HISTORY, COLONIAL TO 1860 (3-0) 3 hours credit. Traces the development and nature of American law with emphasis on the interrelations of law, public opinion, constitutions, the legal profession, and judiciary. Credit cannot be received for both 3317 and 3353.

3318. AMERICAN LEGAL AND CONSTITUTIONAL HISTORY, 1860 TO PRESENT (3-0) 3 hours credit. 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. Credit cannot be received for both 3318 and 3353.

3319. GREAT ANGLO-AMERICAN TRIALS (3-0) 3 hours credit. 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.

3320. U.S. CIVIL LIBERTIES (3-0) 3 hours credit. 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.

3321. COLONIAL AMERICA TO 1763 (3-0) 3 hours credit. 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.

3322. THE AMERICAN REVOLUTION AND THE CONSTITUTION, 1763-1789 (3-0) 3 hours credit. 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.

3323. THE NEW NATION, 1789-1844 (3-0) 3 hours credit. The development of the national government, the party system, the mar-

ket 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.

3324. THE COMING OF THE CIVIL WAR, 1820-1860 (3-0) 3 hours credit. 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.

3325. CIVIL WAR AND RECONSTRUCTION, 1850-1876 (3-0) 3 hours credit. 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.

3326. THE OLD SOUTH, 1607-1863 (3-0) 3 hours credit. 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.

3327. THE NEW SOUTH, 1863-PRESENT (3-0) 3 hours credit. 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.

3328. HISTORY OF THE UNITED STATES, 1876-1900 (3-0) 3 hours credit. 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.

3330. THE AGE OF REFORM IN UNITED STATES HISTORY, 1900-1920 (3-0) 3 hours credit. 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.

3334. HISTORY OF THE UNITED STATES, 1920-1945 (3-0) 3 hours credit. The technological revolution of the 1920s, the Great Depression, and World War II.

3342. CONTEMPORARY AMERICA, 1945-PRESENT (3-0) 3 hours credit. 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.

3345. SOCIAL HISTORY OF AMERICAN FILM (3-0) 3 hours credit. Analysis of the social, cultural, political, and economic history of American movies and the film industry. Films will be shown to explore the interaction between motion pictures and the broader society.

3348. HISTORY OF AMERICAN FOREIGN RELATIONS, 1775-1913 (3-0) 3 hours credit. 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.

3349. HISTORY OF AMERICAN FOREIGN RELATIONS, 1913-PRESENT (3-0) 3 hours credit. 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.

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.

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.

3352. THE SOUTHWEST (3-0) 3 hours credit. 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.

3353. CONTEMPORARY AMERICAN ISSUES (3-0) 3 hours credit. Contemporary American social issues in areas such as race, gender, and economic enterprise are studied by tracing their origin and historical development.

3354. RELIGION IN UNITED STATES HISTORY (3-0) 3 hours credit. A survey of American religious traditions and spirituality. Emphasis on the intersection of sacred and secular in shaping national development.

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 listed as GEOG 3355; credit will be granted only once.

3356. MILITARY HISTORY OF THE UNITED STATES (3-0) 3 hours credit. 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.

3357. THE EARLY FRONTIER (3-0) 3 hours credit. 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.

3358. THE LATER FRONTIER (3-0) 3 hours credit. 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.

3359. PRESIDENTIAL PERSONALITY (3-0) 3 hours credit. 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.

3360. TWENTIETH CENTURY AMERICAN CULTURAL HISTORY (3-0) 3 hours credit. 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.

3361. THE UNITED STATES IN VIETNAM, 1945-1975 (3-0) 3 hours credit. American involvement in the Indochinese conflict; the causes, outcome, and consequences of the war.

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.

3363. TEXAS TO 1850 (3-0) 3 hours credit. 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.

3364. TEXAS SINCE 1845 (3-0) 3 hours credit. 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.

3365. AFRICAN-AMERICAN HISTORY TO 1865 (3-0) 3 hours credit. 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.

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 movements.

3367. AMERICAN INDIAN HISTORY (3-0) 3 hours credit. 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.

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. Also listed as MAS 3368; credit will be granted only once.

3370. THE IMAGE OF THE AMERICAN WEST (3-0) 3 hours credit. 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.

3371. IMAGES OF THE SOUTHWEST (3-0) 3 hours credit. 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." Also listed as GEOG 3371; credit will be granted only once.

3372. U.S. BUSINESS AND ECONOMIC HISTORY, 1607-1865 (3-0) 3 hours credit. 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.

3373. U.S. ECONOMIC HISTORY, 1860-PRESENT (3-0) 3 hours credit. 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.

3374. ANCIENT GREECE (3-0) 3 hours credit. 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.

3375. ANCIENT ROME (3-0) 3 hours credit. 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.

3378. RENAISSANCE AND REFORMATION EUROPE (3-0) 3 hours credit. The Renaissance, Reformation and Counter-Reformation in Western and Central Europe. The economic, social, political, cultural and religious changes that convulsed the region between 1250 and 1560, ushering in the modern period.

3380. HISTORY OF ANCIENT SPORT (3-0) 3 hours credit. 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.

3382. REVOLUTIONS AND REVOLUTIONARIES IN HISTORY (3-0) 3 hours credit. A historical examination of the world's major revolutions, from the 16th through the 20th centuries.

3383. EARLY MODERN EUROPE, 1560-1715 (3-0) 3 hours credit. 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.

3384. WAR AND SOCIAL CHANGE/MILITARY REVOLUTION (3-0) 3 hours credit. 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.

3389. WORLD WAR II, 1939-1945 (3-0) 3 hours credit. 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.

3390. HONORS COLLOQUIUM (3-0) 3 hours credit. A multidisciplinary course designed to meet the needs of advanced undergraduates in the Honors College. Prerequisite: participation in the Honors College and/or permission of instructor.

There is no distinction between 3000/4000-level courses in history. The prerequisite for all of the following courses is six hours in social science.

4301. HISTORICAL GEOGRAPHY AND CARTOGRAPHY (3-0) 3 hours credit. An introduction to cultural and historical geography with an emphasis on cartography and the use of maps in research and teaching. Also listed as GEOG 4301; credit will be granted only once.

4345. TUDOR-STUART ENGLAND, 1485-1714 (3-0) 3 hours credit. The legacy of the Wars of the Roses: the "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.

4348. ENGLAND 1714-1848 (3-0) 3 hours credit. 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.

4349. ENGLAND 1848-PRESENT (3-0) 3 hours credit. 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.

4350. BRITISH CONSTITUTIONAL HISTORY (3-0) 3 hours credit. 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.

4351. BRITISH EMPIRE (3-0) 3 hours credit. 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.

4352. MODERN IRELAND (3-0) 3 hours credit. 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.

4354. EARLY FRANCE: OLD REGIME AND REVOLUTION, 1610-1799 (3-0) 3 hours credit. 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.

4355. MODERN FRANCE, 1799-PRESENT (3-0) 3 hours credit. 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.

4356. IMPERIAL GERMANY, 1740-1914 (3-0) 3 hours credit. Prussian, German, and Hapsburg empires. Feudal society, absolutism, German romanticism, democratization, industrialization. The challenges of nationalism, colonialism, and the collapse of the empires.

4357. MODERN GERMANY, 1914-1990 (3-0) 3 hours credit. Social, political, and cultural history of Germany through World War I and II, division of Germany into East and West and ultimate unification.

4358. THE NAZIS AND THEIR LEGACY, 1918-PRESENT (3-0) 3 hours credit. A look at the unique character of the Third Reich as a prelude to transnational themes; resistance and collaboration, medical ethics, genocide and war, war criminals, Holocaust in postwar literature and cinema, political radicalism in the 20th century.

4359. HISTORY OF RUSSIA TO 1855 (3-0) 3 hours credit. Russian history from the origins of the first Russian state through the reign of Nicholas I. The Kievan Rus, the Mongol impact and Muscovite state, the rise of Imperial Russia, and Russia's emergence as a global power. Also listed as RUSS 4359, but credit will be granted in only one area.

4360. HISTORY OF RUSSIA SINCE 1855 (3-0) 3 hours credit. Russian history from the reign of Alexander II to the present. The

decline of Imperial Russia, the rise of the revolutionary spirit, and the emergence, consolidation, and development of the Soviet state. Also listed as RUSS 4360, but credit will be granted in only one area.

4361. RUSSIA AND NORTHEASTERN EUROPE, 1225-1815 (3-0) 3 hours credit. 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.

4362. RUSSIA AND THE SUCCESSOR STATES TODAY (3-0) 3 hours credit. 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. Also listed as POLS and RUSS 4362; credit will be given in only one department.

4363. SPECIAL TOPICS IN RUSSIAN AND EURO-ASIAN STUDIES (3-0) 3 hours credit. Russia and the successor states of the old Soviet Union examined in relation to selected issues concerning politics, social change, and historical events. Also listed as RUSS and POLS 4363; credit will be given in only one department. Prerequisite: RUSS or POLS 4361, or POLS, RUSS, or HIST 4362.

4364. THE SINO-RUSSIAN RELATIONSHIP (3-0) 3 hours credit. The interaction of China and Russia. A broad cultural-intellectual perspective utilized to contrast history, philosophy, and unique cultures of the Chinese and Russian peoples. The political systems and varying applications of Marxist philosophy. Also listed as RUSS 4364; credit will be given in only one department. Prerequisite: permission of instructor.

4365. HISTORY OF SPAIN AND PORTUGAL (3-0) 3 hours credit. 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.

4366. LATIN AMERICAN HISTORY: ORIGINS THROUGH INDEPENDENCE (3-0) 3 hours credit. 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.

4367. LATIN AMERICAN HISTORY: POST-INDEPENDENCE TO THE PRESENT (3-0) 3 hours credit. 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.

4368. HISTORY OF MEXICO (3-0) 3 hours credit. 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.

4369 HISTORY OF THE CARIBBEAN (3-0) 3 hours credit. 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.

4374. AFRICAN HISTORY I (3-0) 3 hours credit. Examines African prehistory, ancient civilizations, religion, gender issues, slavery, and commerce in precolonial Africa.

4375. AFRICAN HISTORY II (3-0) 3 hours credit. 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.

4376. AFRICAN DIASPORA I (3-0) 3 hours credit. 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.

4377. AFRICAN DIASPORA II (3-0) 3 hours credit. 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.

4378. WEST AFRICA AND THE ATLANTIC DIASPORA (3-0) 3 hours credit. 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. Approval of the instructor is required.

4379. HISTORY OF MODERN CHINA (3-0) 3 hours credit. The Ch'ing 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.

4384. FASCISM, 1919-1945 (3-0) 3 hours credit. The fascist regimes of Germany and Italy, the semi-fascist regimes in Spain and Portugal, and the unsuccessful fascist movements in France, Eastern Europe, and elsewhere. The causes, the nature, the leadership, and the effects of fascism, as well as anti-fascist resistance.

4385. COMPARATIVE POLICE HISTORY (3-0) 3 hours credit. Explores the growth of police institutions in the British Isles, the United States, France, Russia, and Japan. Emphasizes 18th- and 19th-century developments, and studies police as an outgrowth of and interaction with societal needs and values.

4388. SELECTED TOPICS IN HISTORY (3-0) 3 hours credit. Subjects of immediate interest in the various fields of history. May be repeated for credit when the topic changes.

4391, 4291, 4191. UNDERGRADUATE CONFERENCE COURSE (Variable credit as arranged). Topics assigned on an individual basis covering personal research or study in designated areas. Prerequisite: permission of the instructor.

4394. HONORS THESIS/SENIOR PROJECT (3-0) 3 hours credit. 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.

Geography (GEOG)

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.

Geography is the study of humanity's interaction with the physical environment. Geographic conditions have had significant effects on history as interrelationships between place and human activities have changed over time. The study of geographic spatial relationships has a major role in general education because it offers both theoretical and practical foundations for understanding contemporary problems, particularly those related to environmentalism, modernization, and technological progress.

2401. WEATHER AND CLIMATE (4-1) 4 hours credit. Processes that control weather and climate. Methods of describing and forecasting weather. Predicting severe weather, tornadoes, hurricanes, and floods. Also listed as GEOL 2401; credit will not be given for both. Prerequisite: GEOL 1425. I.

2409. THE EARTH'S LANDFORMS (3-1) 4 hours credit. The Earth's surface processes which control landforms. Formation and classification of soils and the effects of human activity on landscape evolution. Also listed as GEOL 2409; credit will not be given for both. Prerequisite: GEOL 1425. I.

3305. INTRODUCTION TO METEOROLOGY AND CLIMATOLOGY (3-0) 3 hours credit. Dynamics of the atmosphere: examination of processes that control weather; long-term climatic cycles and geological record of global climate change; atmospheric pollution and its effects on climate. Prerequisites: six hours of science and junior standing, or permission of the instructor. Also listed as GEOL 3305; credit will be granted for only one of GEOG 3305, GEOL 3305, GEOL 4405.

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 HIST 3350; credit will be granted only once.

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 listed as HIST 3355; credit will be granted only once.

3371. IMAGES OF THE SOUTHWEST (3-0) 3 hours credit. 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." Also listed as HIST 3371; credit will be granted only once.

4301. HISTORICAL GEOGRAPHY AND CARTOGRAPHY (3-0) 3 hours credit. Cultural and historical geography with an emphasis on cartography and the use of maps in research and teaching. Also listed as HIST 4301; credit will be granted only once.

4310. GEOGRAPHY OF THE GREATER SOUTHWEST (3-0) 3 hours credit. 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.

4350. SPECIAL TOPICS IN MODERN GEOGRAPHY (3-0) 3 hours credit. Selected topics in an identified area of geography. The course may be repeated for credit. Prerequisite: approval of instructor.

4391, 4291, 4191. UNDERGRADUATE CONFERENCE COURSE (Variable credit as arranged). Topics assigned on an individual basis covering personal research or study in designated areas. Prerequisite: permission of the instructor.

Interdisciplinary Studies

209 University Hall • Box 19419 • 817-272-2338 • www2.uta.edu/ints

The undergraduate Interdisciplinary Studies Program (INTS) offers both the Bachelor of Arts and the Bachelor of Science 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 and contributes to professional growth, career goals, or future graduate studies. All applicants must have a minimum GPA of 2.0.

Application Procedure

1. The student makes an appointment to meet with an INTS advisor to review the student's career/academic goals and explain the program.
2. The student completes the application, writes a "Statement of Purpose" which must clearly articulate career/academic goals that no existing discipline on campus can accommodate, and fills out a "Course Inventory" which lists courses and organizes them according to specific skills/academic competencies that the student's career goal or future graduate study requires.
3. The student meets again with the advisor, who examines each proposed course to determine its appropriateness to the area of concentration and to place it in the appropriate component area.

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 Degree in Interdisciplinary Studies

General Requirements

English

1301 and 1302.

Literature

Three hours of English literature or modern language literature at the sophomore level (2000) or above.

Liberal Arts

INTS 2301: Interdisciplinary Perspectives is strongly recommended, or three hours of course work from the College of Liberal Arts curriculum at the sophomore level (2000) or above.

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 approved course list from Art, Music, Dance, Theater Arts, Classical Studies, Honors, or Architecture.

Social/Cultural Studies

Three hours from approved course list from Advertising, Anthropology, Architecture, Art, Biology, Business Administration, Classical Studies, Communications, Early Childhood Professions, Economics, English, Exercise Science, French literature, Geography, German literature, History, Honors, Humanities, Linguistics, Music, Nursing, Philosophy, Political Science, Public Relations, Psychology, Russian literature, Sociology, Social Work, Spanish literature, Urban Studies, and Women's Studies.

Requirements for the Bachelor of Science Degree in Interdisciplinary Studies

General Requirements

English

1301 and 1302.

Literature

Three hours of English literature or modern language literature at the sophomore level (2000) or above.

Liberal Arts

Three hours of course work from the College of Liberal Arts curriculum at the sophomore level (2000) or above.

History

1311 and 1312.

Political Science

2311 and 2312.

Mathematics

Six 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 approved list from Art, Music, Dance, Theater Arts, Classical Studies, Honors, or Architecture.

Social/Cultural Studies

Three hours from approved course list from Advertising, Anthropology, Architecture, Art, Biology, Business Administration, Classical Studies, Communications, Early Childhood Professions, Economics, English, Exercise Science, French literature, Geography, German literature, History, Honors, Humanities, Linguistics, Music, Nursing, Philosophy, Political Science, Public Relations, Psychology, Russian literature, Sociology, Social Work, Spanish literature, Urban Studies, and Women's Studies.

Electives for Both BA and BS Degrees

Sufficient hours to complete the total required for the degree (128). Students are encouraged to choose elective courses that will strengthen and support their area of concentration.

Total Hours Required for Graduation for BA and BS Degrees

128 hours, at least 36 of which must be 3000/4000 level, plus 4 hours in exercise and sport activities (EXSA/DNCA), ROTC, or marching band is required. For possible exemptions from exercise and sport activity, consult the Registration section of the catalog.

Areas of Concentration

BA and BS Degrees

The area of concentration consists of courses selected by the student in consultation with the advisor that clearly relate to the title/academic competency of each component and to the program title of the degree plan. A minimum of 36 hours is required for the area of concentration. A maximum of 18 hours may be selected from any single discipline outside of the general requirements. A minimum of 18 hours of 3000/4000 level course work is required. A minimum of 18 hours at any level must be taken at U.T. Arlington.

Examples of BA degree programs offered include, but are not limited to, the following:

- Alternative Certification for Elementary Teaching (Students wanting certification should contact the School of Education)
- Entrepreneurship
- Child Care Facility Management
- Construction Management
- Health Care Administration
- Human Resource Administration
- Landscape Design
- Technical Sales
- Web Design/E-Commerce
- Seminary Preparation

BS Degree Only

For the Bachelor of Science degree, at least 18 hours in the area of concentration must be "science-for-science majors" course work. Twelve of these hours must be 3000/4000 level course work.

Examples of BS degree programs include, but are not limited to, the following:

- Alternative Certification for Elementary Teaching (Students wanting certification should contact the School of Education)
- Biomedical Engineering
- Environmental Studies
- Forensics
- Medical Management
- Medical Equipment Sales
- Neuroscience
- Physician Assistant
- Pharmaceutical Sales

Competence in Computer Use for BA and BS Degrees

Graduating students should 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 should 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 should take a computer proficiency course that is most directly related to their area of concentration. Students should consult with their academic advisor for course suggestions.

Competence in Oral Proficiency for BA and BS Degrees

Students should 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 should take an oral proficiency course that is most directly related 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

INTS has cooperative programs of study with various schools, departments, and programs including The Center for Mexican-American Studies, The School of Urban and Public Affairs, the Program in Landscape Architecture, and the Department of Electrical Engineering.

Examples of cooperative interdisciplinary degree options with concentrations in the following areas:

- CMAS-INTS: Spanish Culture
- CMAS-INTS: Public Policy
- Landscape Design
- Urban Public Administration
- Urban Planning and the Environment
- Urban Affairs and Public Policy
- Electrical Utility Engineering Certification Program

Interdisciplinary Studies (INTS)

2301. INTERDISCIPLINARY PERSPECTIVES (3-0) 3 hours credit.

This is a foundation course that 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.

4391. INTERDISCIPLINARY CAPSTONE (3-0) hours credit.

As the final course in the student's baccalaureate experience, the capstone course is designed to synthesize the entire Interdisciplinary Studies experience. This course examines various models of interdisciplinary research, analyzes selected examples, and formulates and plans an interdisciplinary research project or internship. INTS and relevant departments will determine academic criteria for capstone projects or internships. Prerequisites: INTS 2301, junior standing at the time of application, a 3.0 in course work in the area of concentration, and advisor approval of abstract of proposed capstone project.

Linguistics

403 Hammond Hall • Box 19559 • 817-272-3133 • <http://ling.uta.edu>

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 program in linguistics at U.T. 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 program 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, literacy work in the United States and abroad, translation, and speech pathology. Above all, students in the linguistics program are made especially aware of the complex world in which we live by studying a universal and most definitive human experience: language.

The faculty of linguistics offers a minor in linguistics.

Interested students should initiate a request for the preparation of their program through the Linguistics undergraduate advisor.

Linguistics Faculty

Professor

Edmondson

Associate Professors

Burquest, Feigenbaum, Paolillo, Silva

Adjunct Professors

Franklin, T. Headland, G. Huttar, Merrifield, Rensch, Robbins

Adjunct Associate Professors

Bennett, Gregerson, Hwang, Milliken, Reed, Ross, Walter

Adjunct Assistant Professors

del Aguila, Boothe, Bowling, Bruce, Diehl, Gallman, P. Headland, Hohulin, Huddleston, M. Huttar, Lander, Larson, Leaders, McElhanon, C. McKinney, N. McKinney, Morren, Myers, Simons, Turnbull, Walker, Walton, Watson, Wheatly

Linguistics (LING)

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.

2301. INTRODUCTION TO THE STUDY OF HUMAN LANGUAGES (3-0) 3 hours credit. 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.

3311. INTRODUCTION TO LINGUISTIC SCIENCE: DESCRIPTIVE LINGUISTICS (3-0) 3 hours credit. The nature of natural language analysis, the diversity of language features, variation in speech, and

related topics, including historical and comparative linguistics. Prerequisite: LING 2301, or a grade of B or better in a 2000-level modern language course.

3330. PHONETICS AND PHONOLOGY (3-0) 3 hours credit. 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 instructor.

3340. GRAMMAR AND MORPHOLOGY (3-0) 3 hours credit. 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 instructor.

4301. PHONOLOGICAL THEORY I (3-0) 3 hours credit (Also taught as LING 5320). Principles governing sound systems in human languages. Prerequisite: LING 3330.

4303. GRAMMATICAL THEORY I (3-0) 3 hours credit (Also taught as LING 5330). Grammatical systems in human languages. May be repeated for credit when the topic changes. Prerequisite: LING 3340.

4317. SOCIOLINGUISTICS (3-0) 3 hours credit (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 or permission of instructor.

4318. LANGUAGE AND GENDER (3-0) 3 hours credit. 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. Also listed as WOMS 4318; formerly offered as LING 4392/WOMS 4392; credit will be granted only once.

4320. HISTORICAL AND COMPARATIVE LINGUISTICS (3-0) 3 hours credit (Also taught as LING 5314). Language development and change; the comparative method and its use in linguistic reconstruction; laws of language change. Prerequisites: LING 3311.

4327. LANGUAGE ACQUISITION (3-0) 3 hours credit (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.

4330. THE COMPUTER AND NATURAL LANGUAGE (3-0) 3 hours credit (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.

4353. TEACHING ENGLISH AS A SECOND OR FOREIGN LANGUAGE (3-0) 3 hours credit (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 3311 or permission of instructor.

4354. METHODS AND MATERIALS TO TEACH ENGLISH AS A SECOND OR FOREIGN LANGUAGE (3-0) 3 hours credit (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 4353.

4389. TOPICS IN LINGUISTICS (3-0) 3 hours credit. Current topics in linguistics research. May be repeated if topic changes.

4391. CONFERENCE COURSE IN LINGUISTICS (3-0) 3 hours credit. Independent study in the preparation of a paper on a research topic; consultation with instructor on a regular basis. May be repeated for credit. Prerequisites: consent of the program and completion of or concurrent enrollment in a 3000-level linguistics course.

English for Speakers of Other Languages (ESOL)

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

4300. ACADEMIC WRITING (3-0) 3 hours credit. 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.

4301. ACADEMIC PRESENTATION SKILLS (3-0) 3 hours credit. 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.

Teaching English as a Second Language

Undergraduate students interested in careers in TESOL (Teaching English to Speakers of Other Languages) are strongly encouraged to take LING 2301 as part of their undergraduate degree program and then pursue a Graduate Certificate in TESOL offered by the U.T. Arlington Graduate School. For those students who do not plan to attend graduate school, the Program in Linguistics offers a four-course undergraduate sequence in TESOL: LING 3311, 4327, 4353, 4354. Students completing the undergraduate versions of these four courses may not apply them toward a Graduate Certificate in TESOL. For more information about preparing for a job in TESOL, contact the undergraduate advisor.

English Language Institute

The English Language Institute (ELI) is a center for instruction of English for Speakers of Other Languages.

The ELI offers an intensive English program to international students desiring to prepare themselves for university study. The intensive English program also serves as an ESOL research and teaching laboratory for faculty and students. As an extension of its concerns with ESOL instruction, the ELI provides developmental instruction in English for Speakers of Other Languages to international students enrolled at U.T. Arlington and to area businesses that employ internationals in their work force. Director: Keith Maurice, Room 402, Hammond Hall, 817-272-2730.

International Linguistics Center

The University of Texas at Arlington has entered into special contractual arrangements with SIL International and the Graduate Institute of Applied Linguistics, both located in the International Linguistics Center in Dallas (near Duncanville). The programs offered at the ILC include preparation in linguistic analysis, cultural anthropology, and literacy development in developing communities. Students seeking more information about these and related programs are encouraged to contact the undergraduate advisor.

Mexican American Studies

2nd Floor, University Center • Box 19444 • 817-272-2933

The Center for Mexican American Studies offers a minor for all students in Liberal Arts. The center offers an interdisciplinary curriculum of academic study that critically examines the historical and contemporary experiences of people of Mexican and other Latino descent in the context of American society and institutions. With permission of their department heads, students may enroll in a series of courses and obtain a minor in Mexican American Studies. Students selecting the Mexican American Studies minor should consult first with advisors in their departments or programs for approval of the minor, then with the Mexican American Studies director. A Mexican American Minor consists of two required courses (MAS 2300, normally taken in the second year; and MAS, 4300, normally taken in the senior year) and 12 hours selected from the following courses or from other approved courses in Liberal Arts.

Mexican American Studies (MAS)

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.

2300. INTRODUCTION TO MEXICAN-AMERICAN STUDIES (3-0) 3 hours credit. 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.

3317. MEXICAN POLITICS AND U.S.-MEXICAN RELATIONS (3-0) 3 hours credit. Current economic and political systems of Mexico and relevant issues in U.S.-Mexico relations. Trade, immigration, economic dependency, energy, contraband and other topics. Also listed as POLS 3317. Credit will be granted only once.

3330. CULTURAL DIVERSITY AND IDENTITY (3-0) 3 hours credit. 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 MAS 3330. Also listed as ANTH 3330. Credit cannot be given for both ANTH 3330 and MAS 3330.

3352. THE SOUTHWEST (3-0) 3 hours credit. A multicultural history of the southwestern United States from pre-Colombian times to the present. Cultural adaptation to the environment; cultural contact and conflict; political, social and economic change. Also listed as HIST 3352. Credit will be granted only once.

3363. TEXAS TO 1850 (3-0) 3 hours credit. 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 HIST 3362. Credit will be granted only once.

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. Also listed as HIST 3368. Credit will be granted only once.

4300. MEXICAN AMERICAN STUDIES RESEARCH SEMINAR (3-0) 3 hours credit. Students design a research project, prepare a prospectus, abstract, annotated bibliography and a research paper that is presented at a colloquium at the end of the semester. Students also present oral and written comments on the work of their peers. Required for completion of Mexican American Studies minor. Cross-listed with HONR 3390. Credit cannot be given for both.

4310. MINORITIES (3-0) 3 hours credit. The role of racial and minority categories in the social order. The role, and the associated problems, of groups within the American culture and the impact of these persons on the total cultural milieu. Prerequisite: Junior standing or permission of the instructor. Also listed as SOCI 4310. Credit will be granted only once.

4317. CHICANO LITERATURE (3-0) 3 hours credit. Mexican-American literature, with special attention to its social, cultural and linguistic background. Also listed as SPAN 4317. Credit will be granted only once.

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 other relations with other ethnic groups. Also listed as POLS 4319. Credit cannot be given for both.

4350. TOPICS IN MEXICAN AMERICAN STUDIES (3-0) 3 hours credit. Subjects of interest in Mexican American and Latino studies. May be repeated for credit when topic changes.

4368. HISTORY OF MEXICO (3-0) 3 hours credit. Mexican history from its pre-Colonial Indian heritage to the current scene. A social and economic analysis of the major events in Mexican history with emphasis on the Mexican Revolution for an understanding of the present situation in Mexico. Also listed as HIST 4368. Credit will be granted only once.

Additional courses that are not cross-listed with Mexican American Studies also may be used to fulfill the Mexican American Studies minor with permission of the Center for Mexican American Studies director. These courses include:

CRCJ 3380. ETHNIC AND GENDER ISSUES IN CRIMINAL JUSTICE (3-0) 3 hours credit. An overview of ethnic and gender issues focusing on victims, offenders, and professionals in the criminal justice system. Also listed as WOMS 3380. Credit will be granted only once.

ENGL 2303. TOPICS IN LITERATURE (3-0) 3 hours credit. May include topics in film and literature, women in literature, short story, and autobiography. May be repeated for credit when content changes.

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 relations with other ethnic groups.

SOCW 3317. SOCIAL WORK WITH WOMEN AND MINORITIES (3-0) 3 hours credit. Using history of women and selected minorities in the U.S. to facilitate understanding and development of social work practice. Prerequisites: SOCW 2311 and SOCW 2313.

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. 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 U.T. 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.

Advanced Camp: Six weeks of high-intensity training with students from across the nation, designed to evaluate individual leadership potential. Emphasis placed on evaluation of the individual. Student receives pay. Travel, lodging and most meal costs are defrayed by the Army.

Camp Challenge: A six-week summer camp conducted at an Army post. The environment is rigorous and is similar to Army basic training. No military obligation incurred. The student receives pay. Travel, lodging and most meal costs are defrayed 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 pass a written and physical examination; and must sign an agreement to complete the last two years of Army ROTC and attend a six-week advanced ROTC Summer Camp.

Two-Year Program: This program is offered for students who have had two years of college and no prior ROTC or military training. Students attend a basic six-week summer training period at a military installation after the sophomore year. This camp replaces the basic course required of students in the four-year program. After the successful completion of this basic camp, students will start the advanced course with all the pay and entitlements of the four-year program cadets. Students with prior military experience may enter the advanced course without basic course or basic camp.

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 be enrolled in the ROTC program, must receive acceptance of military science as a minor from his/her major degree department, and must complete 18 hours of military science, 10 of which are advanced.

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 \$200 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. All students are encouraged to make application through the Military Science Department.

Course Substitution

ROTC credits may be used in the completion of a college degree by applying them to elective hours. Military science may be taken along with or in lieu of exercise and sport activities (EXSA/DNCA) or marching band.

Department of Military Science Faculty

Chair

LTC Wood

Assistant Professors

Brown, Jean, White

Instructors

Currie, Hunter

Military Science (MILS)

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.

0180. LEADERSHIP LABORATORY (0-3) 1 hour credit. 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, no fee. May be repeated for credit.

1241. INTRODUCTION TO ROTC AND THE UNIVERSITY (1-3) 2 hours credit. 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 weekly physical fitness training, plus optional participation in a weekend field training exercise.

1242. INTRODUCTION TO LEADERSHIP (1-3) 2 hours credit. 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 weekly physical fitness training, plus optional participation in a weekend field training exercise.

2248. EVOLUTION OF CONTEMPORARY MILITARY STRATEGY (2-0) 2 hours credit. A review of contemporary military conflicts. Selected battles from World War II, Korea, Vietnam, and the Yom Kippur War are examined for impact upon current U.S. military doctrine, strategy, and weapons systems. All military science students must enroll or participate in MILS 0180 concurrently with this course unless exception is given by the PMS.

2291. CONFERENCE COURSE (2-0) 2 hours credit. 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 PMS.

2343. CAMP CHALLENGE (3-0) 3 hours credit. A rigorous six-week summer camp conducted at an Army post, similar to Army basic training. 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 1241, 1242, 2351, and 2352, and who pass an ROTC physical examination. P/F grade only.

2351. SELF/TEAM DEVELOPMENT (2-1) 3 hours credit. 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 weekly physical fitness training, plus optional participation in a weekend field training exercise.

2352. INDIVIDUAL/TEAM MILITARY TACTICS (2-3) 3 hours credit. 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 weekly physical fitness training, plus optional participation in a weekend field training exercise.

3341. LEADERSHIP I (3-0) 3 hours credit. 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 PMS.

3342. LEADERSHIP II (3-0) 3 hours credit. 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 PMS.

3443. SUMMER FIELD TRAINING 4 hours credit. Six-week off-campus field training course stressing the practical application of leadership management, with emphasis on tactical and technical military field skills.

3495. NURSING ADVANCED SUMMER TRAINING (4-0) 4 hours credit. 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. Prerequisites: completion of the junior year of a baccalaureate nursing program and permission of the PMS.

4341. ADVANCED LEADERSHIP I (3-0) 3 hours credit. 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 PMS.

4342. ADVANCED LEADERSHIP II (3-0) 3 hours credit. 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 PMS.

4391. CONFERENCE COURSE (3-0) 3 hours credit. 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 PMS.

The Department of Modern Languages

230 Hammond Hall • Box 19557 • 817-272-3161 • <http://langlab.uta.edu>

The Department of Modern Languages contributes to the three-fold mission of the College of Liberal Arts by enabling students to develop basic competencies and defined proficiency levels in any of several modern languages, by helping students to prepare for the world of work by means of specialized courses and degree options, and by providing students with the tools for understanding and evaluating the diversity of human culture as represented in a number of the world's languages and literatures.

- Language learning is skills development. To this end the department offers a full range of language offerings, from courses for beginning language learners to advanced courses in written and oral expression. All four language skills—speaking, listening, reading, and writing—are developed.
- Language competency, whether in an ancillary or primary sense, can be a valuable asset to many professions and careers. It can be the primary focus in such careers as teaching and government service, or an important—even essential—asset for professions in, for example, the travel industry, health care, and international business enterprises of all kinds.
- Cultural and linguistic diversity characterize the human experience even in a world made smaller by mass communication and technology. Through literature and language classes students gain the insights needed to appreciate the world views of people in other countries and cultures and, inversely, to learn more about themselves by knowing what people elsewhere think about them and their culture.

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.
- Transfer students who have not taken the 1441-2314 sequence at U.T. Arlington are required to take the Modern Language placement exam and score at least a B equivalent for the 2314 level.
- 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 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.

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.

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.

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.

Minor

18 hours, at least six of which must be 3000/4000 level. Options within the department include any other modern language (1441, 1442, 2313, 2314, or equivalent, plus six advanced hours, or 12 advanced hours for secondary teacher certification).

Total

128 hours, of which at least 36 must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

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.

Teacher Certification

Bachelor of Arts Degree in a Modern Language with Secondary Certification: This plan requires a second teaching field.

Bachelor of Arts Degree in a Modern Language with Elementary Teacher Certification: French/Elementary Education, German/Elementary Education, Russian/Elementary Education, or Spanish/Elementary Education. This plan does not require a second teaching field.

Students interested in Texas Teacher Certification should consult the School 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.

Ibero-American Studies

(Bachelor of Arts Degree in Modern Languages with a concentration in Ibero-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*, 4363*, 4364*, 4387*.

History

4359*, 4360*.

English

3301*, 3306*.

Major

Russian, plus selected Russian area courses from the following: 3322, 3323, 4322, 4323, 4334, 4335, 4359, 4360, 4362, 4363, 4364, 4387, 3301, and 3306.

* Other courses approved by the major advisor may be substituted if these designated courses are taken for credit in Russian language.

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 one Fall or Spring semester. A 14 credit hour intensive (Levels I, II, III, and IV) in Russian or Spanish may be taken in the 11-week summer term. The Intensive Program offers one of the most effective methods for learning a modern language. Students are cautioned to take these courses prior to their senior year because of the possibility of enrollment limitations. These classes may not be offered every semester or every summer. Check with the Department of Modern Languages for available classes.

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 32 hours in a modern language, students in this program get a solid foundation in business courses, including accounting, economics, finance, management, marketing, and information systems.

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. Lab attendance is required for language classes. 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

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 U.T. Arlington the examinations will be administered by the Testing Services Office of Counseling and Career Development on dates to be announced.

Study Abroad

Students should give serious consideration to the unique learning experience of studying abroad. The department offers several opportunities for gaining credit while studying abroad. All arrangements must be made through the Department Study Abroad Advisor.

Summer Study: Regular programs are offered which provide opportunities for summer study in various countries, including France, Germany, Mexico, Spain, the post-Soviet States/ Eastern Europe, and the People's Republic of China.

Competence in Computer Use

Students majoring in French, German, Russian, or Spanish may demonstrate competency in computer use by:

- (1) passing CSE 1301 (or equivalent); or
- (2) passing the University computer competency examination; or
- (3) 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:

- (1) taking and passing FREN 3315, GERM 3313, RUSS 3333, SPAN 3303, SPAN 3304; or
- (2) passing SPCH 1301, 1302 or 2305 (or equivalent); or
- (3) passing any other course approved by the Undergraduate Assembly for this purpose; or
- (4) passing the University oral communication competency examination.

Department of Modern Languages Faculty

Chair

Professor Ordóñez

Professors

Gross, McDowell

Associate Professors

Elliott, Israel-Pelletier, Rings, Sol, Viña

Assistant Professors

Choi, Holder, Iñiguez-Becerra,

Palangian, Pastrana, van Noort

Specialist

Williams

Course Descriptions

Each modern language—French, German, Russian, Spanish, and Portuguese—has course designations 1441, 1442, etc. The student should check the language desired for the course description.

Native speakers or heritage speakers, or near-native speakers may not enroll in courses numbered below 3000.

Information on Advanced Courses: In FREN, GERM, RUSS, and SPAN, and except for native, heritage or near-native speakers, the prerequisite for 3000-level courses is the completion of the 2314 course or equivalent with at least a grade of C or departmental permission. The prerequisite for 4000-level courses in FREN, GERM, and RUSS is the completion of at least two 3000-level courses or departmental permission, and in SPAN is the completion of SPAN 3314, 3315, 3318, and 3319 or departmental permission. Prerequisites for advanced courses in other areas are stated under their specific headings.

Modern Language (MODL)

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.

1441. TOPICS IN MODERN LANGUAGE LEVEL I (3-2) 4 hours credit (Chinese, etc.). This course parallels the 1441 courses in FREN, GERM, RUSS, and SPAN.

1442. TOPICS IN MODERN LANGUAGE LEVEL II (3-2) 4 hours credit (Chinese, etc.). This course parallels the 1442 courses in FREN, GERM, RUSS, and SPAN. Prerequisite: FORL 1441 or equivalent.

2313. TOPICS IN MODERN LANGUAGE LEVEL III (3-0) 3 hours credit (Chinese, etc.). This course parallels the 2313 courses in FREN, GERM, RUSS, and SPAN. Prerequisite: FORL 1442 or equivalent.

2314. TOPICS IN MODERN LANGUAGE LEVEL IV (3-0) 3 hours credit (Chinese, etc.). This course parallels the 2314 courses in FREN, GERM, RUSS, and SPAN. Prerequisite: FORL 2313 or equivalent.

3301. TOPICS IN COMPARATIVE LANGUAGES, CULTURE, AND LITERATURES (3-0) 3 hours credit. 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.

French (FREN)

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

1441. LEVEL I (3-2) 4 hours credit (FREN 1411).

1442. LEVEL II (3-2) 4 hours credit (FREN 1412). Prerequisite: FREN 1441 or equivalent.

2313. LEVEL III (3-0) 3 hours credit (FREN 2311). Prerequisite: FREN 1442 or equivalent.

2314. LEVEL IV (3-0) 3 hours credit (FREN 2312). Prerequisite: FREN 2313 or equivalent.

Levels I and II, or III and IV may be elected as one intensive program which permits the completion of two levels in one semester. Students planning to enroll in this program must: (1) arrange a conference with the instructor prior to registration; (2) register for section 082 for each level. The intensive program may not be offered every semester. Students are cautioned to take these courses prior to their senior year because of the possibility of enrollment limitations.

2391. INDEPENDENT STUDY (3-0) 3 hours credit. By consent of the department only.

3304. SELECTED READINGS AND COMPOSITIONS (3-1) 3 hours credit. 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. Prerequisite: FREN 2314 with a grade of C or better, or consent of the department.

3311. FRENCH LITERATURE AND CULTURE I (3-0) 3 hours credit. The main currents of French literature, art, and thought from the Middle Ages to the 18th century in relation to French political and social history. Prerequisite: FREN 2314 with a grade of C or better; or a knowledge of the language and consent of the instructor. Required of French majors.

3312. FRENCH LITERATURE AND CULTURE II (3-0) 3 hours credit. 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; or a knowledge of the language and consent of the instructor. Required of French majors.

3315. ADVANCED FRENCH CONVERSATION AND PHONETICS (3-0) 3 hours credit. 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; or a knowledge of the language and consent of the instructor.

3316. TOPICS IN CITIES OF FRANCE (3-0) 3 hours credit. Major cities and regions (Paris, Marseille, Normandie, Provence, etc.) at different periods in their history. Representation of the city, suburb, province, industry, commerce, and transportation in various artistic media, e.g., literature, the visual arts (including film), and the media. May be repeated for credit when content changes. Prerequisite: FREN 2314 with a grade of C or better, or a knowledge of the language and consent of the department.

3318. TOPICS IN THE REPRESENTATION OF CLASS IN FRENCH CULTURE (3-0) 3 hours credit. Study of one or more social, economic, and political classes (e.g., bourgeois, peasant, aristocrat, worker, intellectual) from the Middle Ages to the present. Construction of class in works of literature and art and in the media, entertainment, political discourse, and the discourse on education. May be repeated for credit when content changes. Prerequisite: FREN 2314 with a grade of C or better, or a knowledge of the language and consent of the department.

4314. ADVANCED FRENCH GRAMMAR AND COMPOSITION (3-0) 3 hours credit. 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 3311 or 3312 with a grade of C or better; or knowledge of the language and consent of the instructor.

4322. STUDIES IN THE SEVENTEENTH CENTURY (3-0) 3 hours credit. Political and artistic climate of a defining period in French culture. Classical doctrine and literature, the "Libertins," the "Jesuites," "Port Royal," "Preciosite," the role of these movements in the formation of institutions, the monarchy, and concepts of the self. Prerequisite: FREN 3311 with a grade of C or better; or a knowledge of the language and consent of the instructor.

4324. TOPICS IN NINETEENTH-CENTURY FRENCH STUDIES (3-0) 3 hours credit. 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; or a knowledge of the language and consent of the instructor.

4328. TOPICS IN TWENTIETH-CENTURY FRENCH STUDIES (3-0) 3 hours credit. Cultural and literary output of France before and after the Second World War. Patterns of French thought, writing, and self-representation, the "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; or a knowledge of the language and consent of the instructor.

4329. TOPICS IN INTRODUCTION OF FRANCOPHONE LITERATURE AND CULTURE (3-0) 3 hours credit. The content will vary, to include at times Francophone literature and culture from Africa, Canada, the Caribbean, and the United States. The aim is to help the student become familiar with the history, culture, and artistic achievements of French-speaking countries around the world. May be repeated for credit when topic changes. Prerequisite: FREN 3312 with a grade of C or better, or a knowledge of the language and consent of the instructor.

4332. STUDIES IN MEDIEVAL AND RENAISSANCE CULTURE (3-0) 3 hours credit. 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, or a knowledge of the language and consent of the instructor.

4334. THE CULTURE OF BUSINESS (3-0) 3 hours credit. An introduction to social, political, and economic structures in France, with focus on current events relevant to business in the Francophone world. Video segments and interactive computer packages in French about international business are used extensively as an aid in the acquisition of basic vocabulary of business and economics. Prerequisites: two 3000-level courses or equivalent (FREN 3313, 3314 strongly recommended) with a grade of C or better, or a knowledge of the language and consent of the instructor.

4335. BUSINESS FRENCH (3-0) 3 hours credit. 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. Prerequisites: two 3000-level courses or equivalent (FREN 3313, 3314, 4334 strongly recommended) with a grade of C or better; or a knowledge of the language and the consent of the instructor.

4338. SELECTED TOPICS IN FRENCH LITERATURE OR CULTURE (3-0) 3 hours credit. May be repeated for credit when topic changes.

4339. ACQUISITION OF FRENCH (3-0) 3 hours credit. 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.

4391. CONFERENCE COURSE 3 hours credit. 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. Prerequisites: consent of the department and completion of or concurrent enrollment in a 3000 course.

4394. HONORS THESIS/SENIOR PROJECT (3-0) 3 hours credit. 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.

German (GERM)

Required courses for the major are GERM 3313, 3314, 4321, 4322 and at least 12 additional advanced hours, three of which must be on the 4000 level.

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

1441. LEVEL I (3-2) 4 hours credit (GERM 1411). Multimedia immersion in the culture and language of German-speaking countries. Designed to enable students to understand and communicate effectively in German.

1442. LEVEL II (3-2) 4 hours credit (GERM 1412). Continuation of GERM 1441. Prerequisite: GERM 1441 or equivalent.

2313. LEVEL III (3-0) 3 hours credit (GERM 2311). Highlights in German literature and culture as revealed and reviewed in the printed and electronic media. Application of strategies and technology in mastering listening, speaking, reading, and writing. Prerequisite: GERM 1442 with a grade of C or better.

2314. LEVEL IV (3-0) 3 hours credit (GERM 2312). Continuing study of the highlights in German literature and culture as revealed and reviewed in the printed and electronic media. Application of strategies and technology in mastering listening, speaking, reading, and writing. Prerequisite: GERM 2313 with a grade of C or better.

Levels I and II or III and IV may be elected as one intensive program which permits the completion of two levels in one semester. Students planning to enroll in this program must: (1) arrange a conference with the instructor prior to registration; and (2) register for section 082 of each level. The intensive program may not be offered every semester. Students are cautioned to take these courses prior to their senior year because of the possibility of enrollment limitations.

2391. INDEPENDENT STUDY (3-0) 3 hours credit. By consent of department only.

3301. TOPICS IN GERMAN LITERATURE AND CULTURE IN TRANSLATION (3-0) 3 hours credit. Intellectual and literary trends in life and literature of German-speaking countries as reflected in texts, films, and videos. 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 topics and texts vary. No prerequisites. May be counted towards fulfilling major or minor requirements and/or core curriculum liberal arts elective requirement.

3312. ADVANCED GERMAN GRAMMAR (3-0) 3 hours credit. A detailed study of German grammar. Prerequisite: GERM 2314 with a grade of C or better, and consent of the department.

3313. ADVANCED CONVERSATION (3-0) 3 hours credit. Practice in oral expression with an emphasis on vocabulary building; of special interest to students who wish to improve their skills in pronunciation, comprehension, and expression. Course may be structured around a particular topic or topics for the semester. Credit will not be given to native speakers of German. Prerequisite: GERM 2314 with a grade of C or better, or by permission of the instructor.

3314. ADVANCED GRAMMAR AND COMPOSITION (3-0) 3 hours credit. German grammar with practice in original composition, essay, theme, and creative writing. Of special interest to students who wish to improve their skill in written expression in German. Prerequisite: GERM 2314 with a grade of C or better, or by permission of the instructor.

3317. THE GERMAN HERITAGE (3-0) 3 hours credit. Origins and highlights of German culture and life as reflected in literary works, mythology, religion, and the arts. Contributions of German-speaking people to western literature and culture. May include the exploits of the Vikings, the Faust theme in literature and culture, German women in literature and art, the German idea of nature, German philosophical trends, among others. May be repeated for credit as topics change. Prerequisite: German 2314 or equivalent, or by permission of the instructor.

3318. CONTEMPORARY GERMAN CULTURE AND LITERATURE (3-0) 3 hours credit. German culture and life as reflected in literary works, mythology, religion, and the arts in contemporary German speaking Europe. Contributions of German-speaking people to Western literature and culture. May include 20th century cinema, the Holocaust experience, German-speaking women writers, postwar in East and West Germany, Freud's influence, among other topics. May be repeated for credit as topics change. Prerequisite: GERM 2314 or equivalent; or permission of the instructor.

4313. STUDIES IN THE GERMAN LANGUAGE AND CULTURE I (3-0) 3 hours credit. 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. Prerequisites: two 3000-level German courses with a grade of C or better.

4314. STUDIES IN THE GERMAN LANGUAGE AND CULTURE II (3-0) 3 hours credit. 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. Prerequisites: two 3000-level German courses with a grade of C or better.

4317. ADVANCED STRATEGIES AND PRACTICE IN COMMUNICATION IN GERMAN (3-0) 3 hours credit. Application of listening, speaking, reading, and writing in German. May include current events appearing daily in the printed and electronic media, selected writings on language and literature, cultural orientation on life in German-speaking countries, performance of a German play or scenes from a play, and interviews with native Germans. May be repeated as topics and texts vary. Prerequisites: two 3000-level German courses with a grade of C or better. German used exclusively.

4321. THE GERMAN TRADITION I (3-0) 3 hours credit. German literature, art, and thought from Luther to the early 19th century within the context of Central European political and social history. Prerequisites: two 3000-level German courses or their equivalents. Strongly recommended for German and international business majors.

4322. THE GERMAN TRADITION II (3-0) 3 hours credit. German literature, art, and thought of the 19th and 20th Centuries within the context of Central European political and social history. Prerequisites: two 3000-level German courses or their equivalents. Strongly recommended for German and international business majors.

4334. THE CULTURE OF BUSINESS (3-0) 3 hours credit. Social, political, and economic structures in Germany; current events affecting business in the German-speaking world. Media segments about international business in Germany are used as an aid in the acquisition of the basic vocabulary of business and economics. Prerequisite: two 3000-level courses or equivalent (GERM 3313, 3314 strongly recommended) with a grade of C or better; or a knowledge of the language and consent of the instructor.

4335. BUSINESS GERMAN (3-0) 3 hours credit. 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: two 3000-level German courses or equivalent (GERM 3313, 3314 strongly recommended) with a grade of C or better; or a knowledge of the language and the consent of the instructor.

4339. THE ACQUISITION OF GERMAN (3-0) 3 hours credit. 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.

4391. CONFERENCE COURSE 3 hours credit. 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.

4394. HONORS THESIS/SENIOR PROJECT (3-0) 3 hours credit. 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.

Portuguese (PORT)

Portuguese may not be offered every semester.

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.

1441. LEVEL I (3-2) 4 hours credit.

1442. LEVEL II (3-2) 4 hours credit. Prerequisite: PORT 1441 or equivalent.

2313. LEVEL III (3-0) 3 hours credit. Prerequisite: PORT 1442 or equivalent.

2314. LEVEL IV (3-0) 3 hours credit. Prerequisite: PORT 2313 or equivalent.

4391. CONFERENCE COURSE (3-0) 3 hours credit. 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.

Russian (RUSS)

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

1441. LEVEL I (3-2) 4 hours credit (RUSS 1411).

1442. LEVEL II (3-2) 4 hours credit (RUSS 1412). Prerequisite: RUSS 1441 or equivalent.

1451. RUSSIAN TRANSLATION I (3-2) 4 hours credit. Basic training in translating into English articles from contemporary Soviet journals and periodicals in the career fields of business, engineering, liberal arts, and the sciences.

1452. RUSSIAN TRANSLATION II (3-2) 4 hours credit. A continuation of RUSS 1451. Prerequisite: RUSS 1451 or consent of the instructor.

2313. LEVEL III (3-0) 3 hours credit (RUSS 2311). Prerequisite: RUSS 1442 or equivalent.

2314. LEVEL IV (3-0) 3 hours credit (RUSS 2312). Prerequisite: RUSS 2313 or equivalent.

Levels I, II, III, and IV may be elected as one intensive program which permits the completion of all four levels in one semester. Students planning to enroll in this program must (1) arrange a conference with the instructor prior to registration; and (2) enroll in no other courses during that semester except exercise and sport activities (EXSA). The intensive program is offered only in the summer. Students are cautioned to take these courses prior to their senior year because of the possibility of enrollment limitations.

2391. INDEPENDENT STUDY (3-0) 3 hours credit. By consent of the department only.

3301. RUSSIAN LITERATURE IN TRANSLATION (3-0) 3 hours credit. 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. Prerequisite: permission of the department. Also listed as ENGL 3301; credit will be granted only once.

3306. SOVIET AND POST-SOVIET LITERATURE IN TRANSLATION (3-0) 3 hours credit. 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.

3314. POLITICAL SYSTEMS OF EASTERN AND CENTRAL EUROPE (3-0) 3 hours credit. 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. Also listed as POLS 3314; credit will be given in only one department. Students receiving credit in Russian will complete projects using the Russian language.

3322. INTERMEDIATE RUSSIAN LANGUAGE AND POLITICS I (3-0) 3 hours credit. This is the first of four courses concentrating on Russian grammar, reading, speaking, listening, and writing, developed through the study of authentic texts taken from Russian media. Topics include contemporary national and international issues, with a focus on diplomacy. Prerequisite: RUSS 2314 with a grade of C or better or by permission of the instructor.

3323. INTERMEDIATE RUSSIAN LANGUAGE AND POLITICS II (3-0) 3 hours credit. This is the second of four courses concentrating on Russian grammar, reading, speaking, listening, and writing, developed through the study of authentic texts taken from Russian media. Topics include contemporary national and international issues, with a focus on diplomacy. Added emphasis on texts portraying historical and geographical concerns. Prerequisite: RUSS 3322.

3333. CONVERSATION (3-0) 3 hours credit. Practice in oral expression with seminar-type question-and-answer periods, and practical assignments in the student's major or minor field. Credit will not be granted to native speakers. Prerequisite: RUSS 2314 or consent of the department. Course may be repeated for credit as topics vary.

3343. RUSSIAN PHONETICS (3-0) 3 hours credit. 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 or departmental consent.

4181. RUSSIAN TRANSLATION LABORATORY PRACTICE (0-2) 1 hour credit. To increase translation proficiency through the use of the tape recorder and the computer. Emphasis on using the computer and in giving rapid sight translations from Russian into English. Prerequisite: permission of the instructor.

4322. ADVANCED RUSSIAN LANGUAGE AND POLITICS I (3-0) 3 hours credit. This is the third of four courses concentrating on Russian grammar, reading, speaking, listening, and writing, developed through the study of authentic texts. Translation skills, and active and passive vocabulary also are practiced through study of

contemporary Russian media and government publications. Topics include contemporary national and international issues, with a focus on diplomacy. Prerequisites: RUSS 3322 and 3323.

4323. ADVANCED RUSSIAN LANGUAGE AND POLITICS II (3-0) 3 hours credit. This is the fourth of four courses concentrating on Russian grammar, reading, speaking, listening, and writing, developed through the study of authentic texts. Translation skills, and active and passive vocabulary also are practiced through study of linguistically advanced contemporary Russian print and non-print media and government publications. Topics include contemporary national and international issues, with a focus on diplomacy. Prerequisites: RUSS 4322.

4334. THE CULTURE OF BUSINESS (3-0) 3 hours credit. 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. Prerequisites: two 3000-level courses in Russian or consent of the instructor.

4335. BUSINESS RUSSIAN (3-0) 3 hours credit. 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. Prerequisites: two 3000-level courses in Russian or consent of the instructor.

4359. HISTORY OF RUSSIA TO 1885 (3-0) 3 hours credit. 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. Also listed as HIST 4359. Permission of the department required. For Russian credit, research will be required in Russian.

4360. HISTORY OF RUSSIA SINCE 1885 (3-0) 3 hours credit. 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. Also listed as HIST 4360. Permission of the department required. For Russian credit, research will be required in Russian.

4361. THE POLITICAL ENVIRONMENT OF RUSSIA AND THE SUCCESSOR STATES (3-0) 3 hours credit. The domestic political systems of Russia and the other former Soviet republics. The communist state in retrospect. Development of political actors, institutions, and parties. Also listed as POLS 4361; credit will be given in only one department. Taught in English; for Russian language credit, research will be done in Russian.

4362. RUSSIA AND THE SUCCESSOR STATES TODAY (3-0) 3 hours credit. 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. Emphasis is on area studies and culture. Also listed as HIST 4362 and POLS 4362; credit will be granted in only one department. 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.

4363. SPECIAL TOPICS IN RUSSIAN AND EURO-ASIAN STUDIES (3-0) 3 hours credit. Russia and the successor states of the old Soviet Union examined in relation to selected issues concerning politics, social change, and historical events. Also listed as POLS and

HIST 4363; credit will be given in only one department. Prerequisite: POLS or RUSS 4361, or POLS, RUSS, or HIST 4362. For Russian credit, research will be done in the Russian language. May be repeated for credit as topic changes.

4364. THE SINO-RUSSIAN RELATIONSHIP (3-0) 3 hours credit. The interaction of China and Russia. A broad cultural-intellectual perspective utilized to contrast history, philosophy, and unique cultures of the Chinese and Russian peoples. The political systems and varying applications of Marxist philosophy. Also listed as HIST 4364; credit will be granted in only one department. Prerequisite: permission of instructor. For Russian credit, research will be done in the Russian language.

4365. MODERN POLICIES OF RUSSIA AND THE SUCCESSOR STATES (3-0) 3 hours credit. The modern policies of Russia and other former Soviet republics. Development of their policy-making structures and the major issues confronting them. Emphasis on Russia and the superpower relationship, European security and cooperation, relations with developing states, and the interaction of the former Soviet republics. Also listed as POLS 4365; credit will be given in only one department. Taught in English; for Russian Language credit, research will be done in Russian.

4387. COMMUNISM AND POLITICAL DEVELOPMENT (3-0) 3 hours credit. Marxism and the place of Marxism-Leninism in the post-Cold War world. Special emphasis on China, national liberation movements in the developing world, and post-Soviet Marxism in the European context. Also listed as POLS 4387; credit will be given in only one department. Prerequisite: permission of the department. The course will be taught in English; but for Russian language credit, research will be done in Russian.

4391. CONFERENCE COURSE (3-0) 3 hours credit. 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. Prerequisite: consent of the department.

4394. HONORS THESIS/SENIOR PROJECT (3-0) 3 hours credit. 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.

Spanish (SPAN)

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

1441. LEVEL I (3-2) 4 hours credit (SPAN 1411).

1442. LEVEL II (3-2) 4 hours credit (SPAN 1412). Prerequisite: SPAN 1441 or equivalent.

2313. LEVEL III (3-0) 3 hours credit (SPAN 2311). Prerequisite: SPAN 1442 or equivalent.

2314. LEVEL IV (3-0) 3 hours credit (SPAN 2312). Prerequisite: SPAN 2313 or equivalent.

Levels I, II, III, and IV may be elected as one intensive program which permits the completion of all four levels in one semester. Students planning to enroll in this program must (1) arrange a conference with the instructor prior to registration; (2) register for special intensive sections of each level; and (3) enroll in no other courses during that semester except exercise and sport ac-

tivities (EXSA). The intensive program is offered only in the summer. Students are cautioned to take these courses prior to their senior year because of the possibility of enrollment limitations. Levels I and II or III and IV are also offered as intensive courses that permit completion of two levels in one semester.

Spanish majors must take SPAN 3314, 3315, 3318, and 3319 before enrolling in 4000-level courses. These four courses are required of all Spanish majors and must be taken in sequence: SPAN 3314, 3315, 3318 and 3319.

2391. INDEPENDENT STUDY (3-0) 3 hours credit. By consent of the department only.

3302. HISPANIC LITERATURE IN TRANSLATION (3-0) 3 hours credit. The works of major authors and intellectual trends of a given period. May be repeated for credit as topics or periods vary, but no more than three hours may be counted toward a degree in a modern language. Prerequisites: SPAN 2314 and six hours of English.

3303. ADVANCED SPANISH CONVERSATION (3-0) 3 hours credit. 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. Prerequisite: SPAN 2314 with a grade of C or better, or consent of the department. Generally offered in our summer programs in Spanish-speaking countries.

3304. SPANISH FOR HERITAGE SPEAKERS I (3-0) 3 hours credit. This course is designed for heritage speakers of Spanish who demonstrate by oral testing an ability to comprehend and produce Spanish but who 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.

3305. SPANISH FOR HERITAGE SPEAKERS II (3-0) 3 hours credit. A continuation of SPAN 3304, consisting of a detailed study of advanced Spanish grammar with emphasis in written expression. Exclusively for heritage speakers of Spanish. Prerequisite: SPAN 3303 or 3304.

3311. SPANISH CULTURE AND CIVILIZATION (3-0) 3 hours credit. Spanish history with emphasis on cultural, intellectual, and artistic trends and existing social institutions and moral values. Prerequisite: SPAN 2314 with a grade of C or better, or a knowledge of the language and consent of the department.

3312. SPANISH-AMERICAN CULTURE AND CIVILIZATION (3-0) 3 hours credit. The evolution of Spanish-American society and culture as a background for its contemporary problems. Prerequisite: SPAN 2314 with a grade of C or better, or a knowledge of the language and consent of the department.

3314. ADVANCED SPANISH GRAMMAR (3-0) 3 hours credit. A detailed study of Spanish grammar. Prerequisite: SPAN 2314 with a grade of C or better, or consent of the department.

3315. ADVANCED SPANISH COMPOSITION (3-0) 3 hours credit. Practice in original composition. Of special interest to students who wish to improve their skill in written expression in Spanish. Prerequisite: SPAN 3314 or consent of the department.

3318. SELECTED READINGS IN HISPANIC LITERATURE (3-0) 3 hours credit. Introduction to literary theory and analysis through representative Hispanic texts: questions of how literary texts are structured, what they mean, and how they reflect and shape social and

cultural concepts. Prerequisites: SPAN 3314 and 3315 or consent of the department.

3319. INTRODUCTION TO SPANISH LINGUISTICS (3-0) 3 hours credit. Introduction to Spanish phonology (including articulatory phonetics), morphology, syntax, semantics, and sociolinguistics. This course replaces SPAN 4301. Prerequisites: SPAN 3314 and 3315, or consent of instructor. Credit will not be given for both SPAN 3319 and SPAN 4301.

3320. INTRODUCTION TO HISPANIC LITERATURE AND CULTURE I (3-0) 3 hours credit. Representative literary texts and relevant cultural information and material. Provide an understanding of epochs and currents from the Middle Ages through the Age of Reason. Comparison and contrast of selected texts from Spain and Spanish America with the principal objective of developing students' understanding of historical change and cultural crosscurrents. Prerequisites: SPAN 3318 or consent of the department.

3321. INTRODUCTION TO HISPANIC LITERATURE AND CULTURE II (3-0) 3 hours credit. Representative literary texts and relevant cultural information and material. Provide an understanding of epochs and currents from Romanticism to the present day. Comparison and contrast of selected texts from Spain and Spanish America with the principal objective of developing students' understanding of historical change and cultural crosscurrents. Prerequisites: SPAN 3318 or consent of the department.

3391. CONFERENCE COURSE (3-0) 3 hours credit. Independent study; consultation with instructor on a regular basis. Offered primarily in the U.T. Arlington summer program in Mexico. May be repeated for credit. Prerequisite: permission of instructor.

4191. CONFERENCE COURSE (1-0) 1 hour credit. Independent study; consultation with instructor on a regular basis. May be repeated for credit. Prerequisites: permission of instructor, consent of the department and completion of or concurrent enrollment in a 3000-level course.

4310. TOPICS IN PENINSULAR SPANISH LITERATURE AND CULTURE TO THE EIGHTEENTH CENTURY (3-0) 3 hours credit. 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 3320 or 3321 with a grade of C or better or consent of the department.

4311. TOPICS IN PENINSULAR SPANISH LITERATURE AND CULTURE, EIGHTEENTH CENTURY TO THE PRESENT (3-0) 3 hours credit. 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 3320 or 3321 with a grade of C or better or consent of the department.

4313. TOPICS IN HISPANIC CULTURE (3-0) 3 hours credit. Among the topics are Spanish music, television, radio, film, and literature as culture. May be repeated for credit.

4314. TOPICS IN SPANISH-AMERICAN LITERATURE AND CULTURE TO MODERNISM (3-0) 3 hours credit. Topics may include: Colonial Spanish-American literature and culture, premodern Spanish-American literature and culture, Spanish-American literature and culture of the Enlightenment, or any particular movement, genre,

work or author prior to Modernism. May be repeated for credit when content changes. Prerequisite: SPAN 3320 or 3321 with a grade of C or better or consent of the department.

4315. TOPICS IN CONTEMPORARY SPANISH-AMERICAN LITERATURE AND CULTURE, MODERNISM TO THE PRESENT (3-0) 3 hours credit.

Topics may include: Spanish-American literature and culture of Modernism, modern Spanish-American literature and culture, or any particular movement, genre, work or author from Modernism to the present. May be repeated for credit when content changes. Prerequisite: SPAN 3320 or 3321 with a grade of C or better or consent of the department.

4317. CHICANO LITERATURE (3-0) 3 hours credit. Mexican-American literature, with special attention to its social, cultural, and linguistic background. Also listed as MAS 4317; credit will be granted only once.

4318. MEXICAN LITERATURE (3-0) 3 hours credit. Studies in Mexican fiction, poetry, drama, and literary essay.

4327. WOMEN IN HISPANIC LITERATURE (3-0) 3 hours credit.

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 WOMS 4327; credit will not be given for both.

4330. TOPICS IN SPANISH LINGUISTICS (3-0) 3 hours credit.

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 or 4301 with a grade of C or better or consent of the department.

4332. TOPICS IN SPANISH DIALECTOLOGY (3-0) 3 hours credit.

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 or 4301 with a grade of C or better or consent of the department.

4334. THE CULTURE OF BUSINESS (3-0) 3 hours credit. A preparatory course in business Spanish, focusing on social, political, and economic structures in Spain and Latin America. Special emphasis will be placed on current events affecting the Hispanic business world. Prerequisites: two 3000-level courses in Spanish.

4335. BUSINESS SPANISH (3-0) 3 hours credit. 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. Prerequisites: two 3000-level courses in Spanish.

4339. THE ACQUISITION OF SPANISH (3-0) 3 hours credit.

Theory and practice of language acquisition. Techniques needed to understand and analyze the sounds, vocabulary, and grammar of the Spanish language.

4391. CONFERENCE COURSE (3-0) 3 hours credit. Independent study in the preparation of a paper on a research topic; consultation with instructor on a regular basis. May be repeated for credit. Prerequisites: consent of the department and completion of or concurrent enrollment in a 3000 course.

4393. PRACTICUM (3-0) 3 hours credit. Independent study course including the application of language acquisition techniques to supervised language practice sessions. A research paper will be required. Prerequisite: departmental permission.

4394. HONORS THESIS/SENIOR PROJECT (3-0) 3 hours credit.

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.

The Department of Music

101 Fine Arts Bldg. • Box 19105 • 817-272-3471 • www.uta.edu/music

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/Composition; (4) in Jazz Studies; (5) with emphasis in Music/Business; (6) with emphasis in Music/Theatre; and (7) 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 complete an extended evaluation in applied music at the end of their fourth semester of performance studies. Students pursuing the Performance option must receive permission from the applied jury before enrolling in the junior- and senior-level performance courses. Students on music scholarships must maintain a minimum 2.5 GPA for scholarship renewal.

All students are strongly urged to refer to the sections on Academic Regulations and Degree Programs in the current U.T. Arlington Undergraduate Catalog. Students seeking teacher certification are strongly advised to read the School 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.

Passing grades are required in the following courses:

MUSI 1180, MUSI 1181. Functional Piano I and II

MUSI 1185, MUSI 1186. Sightsinging and Ear Training I and II

MUSI 1325, MUSI 1326. Theory and Harmony I and II

MUSI 12XX, MUSI 12XX. Two semesters of private lessons in the student's performance concentration

MUSI 01XX, MUSI 01XX. Two semesters of the student's major ensemble

Requirements for a Bachelor of Music Degree

(In Performance or Theory/Composition)

English

Six hours of composition.

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 (MUSI 2300 recommended).

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).

Modern Language

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.

Major

1185, 1186, 1325, 1326, 2185, 2186, 2302, 2325, 2326, 3208 or 3209, 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; 3312; 4291 (group piano methods); plus a senior recital.]

Wind, String, or Percussion Performance Option requires 3302, 3303, 3394, 4301 or 4302, 4291 (wind or string instrument literature); 14 additional hours performance major; 12 hours ensemble (orchestra emphasis take eight hours orchestra, four hours any ensemble; band emphasis 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/Composition Option requires 3302, 3303, 3391, 3392, 3394, 4205, 4301 or 4302, 4491, 4492; three hours selected from 1103, 1104, 2103, 2104, 4208 or 4209, 4301 or 4302; four additional hours performance concentration; two hours 0174 (keyboard concentrates must substitute 4242); six hours any ensemble; plus prepare and present a program of original works.

Total

137 hours including a minimum of 36 hours at 3000/4000 level, at least 24 of which must be in music; plus seven semesters MUSI 0040; and exercise and sport activities (EXSA/DNCA) or marching band or ROTC as required.

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 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 (MUSI 2300 recommended).

Political Science

2311, 2312.

History

1311, 1312.

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.

Electives

Music Theatre option (6 hours—3 of which must be 3000/4000 level); Music Business and Music Media options (8 hours); modern language recommended.

Major

1185, 1186, 1325, 1326, 2302, 2325, 2326, 3208 or 3209, 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.

Plus

10 hours (8 at the 3000/4000 level) selected from 1103, 1104, 2103, 2104, 3125, 3212, 3294, 3295, 3302, 3312, 3313 or 3314, 3391, 4300, 4301 or 4302, 4291 (instrumental, vocal or keyboard literature).

Plus

18 hours (six of which must be 3000/4000 level) selected from Business Administration, Art, or Communication as recommended by the major advisor.

Music/Theatre Option requires 2185, 2186; four additional hours performance concentration; 2180, 2181, 4205 or two hours 0174 (keyboard concentrates substitute four hours 0175); 4324; six hours any ensemble (may include THEA 0181); four additional hours choral ensembles or musical theatre/opera laboratory.

Plus

18 hours (nine of which must be 3000/4000 level) selected from Theatre Arts and/or Broadcast Communication as recommended by the major advisor.

Music/Media Option requires 2180, 2181, or 4205 (keyboard concentrates substitute two hours of 0109 or 4205); 3125, 3391, 4301 or 4302, 4323, 4325; six hours any ensemble.

Plus

18 hours (nine of which must be 3000/4000 level) selected from Business Administration, Communication, Broadcast Communication, Art, and/or Advertising as recommended by the major advisor.

Total

132 hours including a minimum of 36 hours at 3000/4000 level, at least 24 of which must be in music; plus seven semesters MUSI 0040; and exercise and sport activities (EXSA/DNCA) or marching band or ROTC as required.

Requirements for a Bachelor of Music Degree

(With Jazz Studies Option)

English

Six hours of composition.

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 (MUSI 2300 recommended).

Political Science

2311, 2312.

History

1311, 1312.

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.

Electives

Eight hours (modern language recommended).

Major

1185, 1186, 1325, 1326, 2185, 2186, 2302, 2325, 2326, 3125, 3208 or 3209, 3212, 3225, 3300, 3301, 3391, 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 hours including a minimum of 36 hours at 3000/4000 level, at least 24 of which must be in music; plus seven semesters MUSI 0040; and exercise and sport activities (EXSA/DNCA) or marching band or ROTC as required.

Requirements for a Bachelor of Music

Degree

(In preparation for Teacher Certification)

English

Six hours of composition.

Literature

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

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..

Major

1185, 1186, 1325, 1326, 2185, 2186, 2302, 2325, 2326, 3208 or 3209, 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).

In addition**All-Level Instrumental Option** requires two hours 0172 (concurrent with 3208 and 4208); 1103, 1104, 1105, 2103, 2104, 3112, 3312, 3313, 4192, 4208, 4301 or 4302, 4312, 4313; 3200, 3212 (band emphasis); 4291, 4280 (orchestra emphasis); keyboard concentrates take four hours 0109 (see Major); ensembles (band emphasis: three hours marching band, three hours wind ensemble, concert band, or university band, one hour orchestra; orchestra emphasis: seven hours orchestra); six additional hours performance concentration.**All-Level Choral Option** requires 1103, 1104, 1105, 2103, 2104, 3101, 3112, 3312, 3314, 4101, 4193, 4209, 4301, 4312, 4314; six hours a cappella choir, one hour musical theatre/opera laboratory; six additional hours performance concentration. In addition, voice concentrates take two hours 0174 and 4205; keyboard concentrates take two hours 0109 and four hours 0175 (see Major).**Total**

123 hours including a minimum of 36 hours at 3000/4000 level, at least 24 of which must be in music; plus seven semesters MUSI 0040; and exercise and sport activities (EXSA/DNCA) or marching band or ROTC as required.

Teacher Certification

Students interested in Texas Teacher Certification should consult the School 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 BUSA 2303; or (c) passing the University computer use competency exam. Oral communication proficiency can be demonstrated by (a) successful completion of MUSI 3208 or 3209; or (b) successful completion of SPCH 1301, 2305, 3302 or 3315; or (c) passing the University oral communication competency exam. 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.

Department of Music Faculty

Chair

Associate Professor Wiley

Professors

Ebensberger, Lichtenwalter, Powell

Associate Professors

Bogle, Chave, Clements, Jessup, Ling-Tam,

McKinney, Morrow, Postlewait, Snodgrass, Varner

Assistant Professors

Bogard, Espinosa, Lange, Solomons, Stamer

Music (MUSI)

Those music courses and music organizations available to non-music majors are indicated in the course description.

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

0101-0130. ENSEMBLES 1 hour credit. 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.

0172. INSTRUMENTAL LAB ENSEMBLE (0-1) 1 hour credit (MUSI 1121). A rehearsal lab to provide additional exposure to the band/orchestral instrument and conducting experience.

0174. SECONDARY KEYBOARD (0-1) 1 hour credit. 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 equivalent proficiency.

0175. SECONDARY VOICE (0-1) 1 hour credit. For music majors whose degree option requires secondary voice. A jury is required to receive credit. May be repeated for credit.

1103. BRASS CLASS (0-2) 1 hour credit (MUSI 1168). Open to music majors only. The brass instruments of the band and orchestra with emphasis on embouchure development, articulation techniques, performance of scales, and limited repertoire.

1104. WOODWIND CLASS (0-2) 1 hour credit (MUSI 1166). Open to music majors only. The woodwind instruments of the band and orchestra with emphasis on embouchure development, articulation techniques, performance of scales, and limited repertoire.

1105. VOICE CLASS (0-2) 1 hour credit. 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.

1180. FUNCTIONAL PIANO I (0-2) 1 hour credit (MUSI 1181). 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, composition, and performance.

1181. FUNCTIONAL PIANO II (0-2) 1 hour credit (MUSI 1182). A continuation of MUSI 1180. Prerequisite: MUSI 1180.

1185. SIGHTSINGING AND EAR TRAINING I (0-2) 1 hour credit (MUSI 1116). Techniques of melodic and rhythmic sightsinging and procedures of dictation.

1186. SIGHTSINGING AND EAR TRAINING II (0-2) 1 hour credit (MUSI 1117). A continuation of MUSI 1185 using more difficult materials. Prerequisite: MUSI 1185.

1300. MUSIC APPRECIATION (3-0) 3 hours credit (MUSI 1306). 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.

1301. ELEMENTS OF MUSIC (3-0) 3 hours credit (MUSI 1301). Basic musical notation, harmony, and theory for non-music majors as a fine arts elective.

1302. HISTORY OF JAZZ (3-0) 3 hours credit. 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.

1325. THEORY AND HARMONY I (3-0) 3 hours credit (MUSI 1311). Scales, intervals, triads, and part writing with primary triads.

1326. THEORY AND HARMONY II (3-0) 3 hours credit (MUSI 1312). Part writing including all diatonic triads, seventh chords, and traditional non-chord tones. Prerequisite: MUSI 1325.

2103. STRING CLASS (0-2) 1 hour credit (MUSI 1189). 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.

2104. PERCUSSION CLASS (0-2) 1 hour credit (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.

2180. FUNCTIONAL PIANO III (0-2) 1 hour credit (MUSI 2181). A continuation of MUSI 1181. Prerequisite: MUSI 1181.

2181. FUNCTIONAL PIANO IV (0-2) 1 hour credit (MUSI 2182). A continuation of MUSI 2180. Prerequisite: MUSI 2180.

2185. SIGHTSINGING AND EAR TRAINING III (0-2) 1 hour credit (MUSI 2116). A continuation of MUSI 1186 using moderately complex melodies and rhythms in more than one part. Prerequisite: MUSI 1186.

2186. SIGHTSINGING AND EAR TRAINING IV (0-2) 1 hour credit (MUSI 2118). A continuation of MUSI 2185 using complex melodies and dictation in four parts. Prerequisite: MUSI 2185.

2300. MUSICAL TRADITIONS OF THE WORLD (3-0) 3 hours credit. 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.

2301. MUSIC IN FILM (3-0) 3 hours credit. 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.

2302. MUSIC LITERATURE (3-0) 3 hours credit. An introduction to music literature of various style periods with an emphasis on reading orchestral scores.

2325. THEORY AND HARMONY III (3-0) 3 hours credit (MUSI 2311). Modulation, chromatic part writing, and harmonic analysis. Prerequisite: MUSI 1326.

2326. THEORY AND HARMONY IV (3-0) 3 hours credit (MUSI 2312). Harmonic, linear, and formal analysis of 19th- and 20th-century compositional techniques. Prerequisite: MUSI 2325.

3101. ITALIAN AND FRENCH DICTION (0-2) 1 hour credit. A guide to correct pronunciation of Italian and French in vocal music.

3103. VOCAL PEDAGOGY (1-1) 1 hour credit. A basic survey of the skills and knowledge needed to teach correct, effective vocal production in school and/or private studio.

3112. PERSPECTIVES IN MUSIC (1-1) 1 hour credit. Comprehensive survey of instrumental, choral and elementary music through lecture and research pertaining to professional responsibilities and career opportunities.

- 3125. JAZZ THEORY (1-0) 1 hour credit.** Basic musical concepts relating to the jazz idiom such as scales, harmonies, styles, etc. Prerequisite: MUSI 1325 or faculty approval.
- 3200. MARCHING BAND TECHNIQUES (2-0) 2 hours credit.** Open to music majors only. A detailed study of the theory and history of marching band presentations.
- 3208. INSTRUMENTAL CONDUCTING I (2-0) 2 hours credit.** Open to music majors only. A practical study of basic instrumental conducting and score reading techniques. Prerequisites: Completion of the Music Theory and Ear Training sequence for the student's degree option.
- 3209. CHORAL CONDUCTING I (2-0) 2 hours credit.** Open to music majors only. A practical study of basic choral conducting and score reading techniques. Prerequisites: Completion of the Music Theory and Ear Training sequence for the student's degree option.
- 3212. JAZZ TECHNIQUES (2-0) 2 hours credit.** A study of jazz techniques as they apply to solo and ensemble performance.
- 3225. JAZZ IMPROVISATION (2-0) 2 hours credit.** The melodic and harmonic foundations of contemporary jazz solo performance. Prerequisite: MUSI 3125 or faculty approval.
- 3294. APPLIED PEDAGOGY (2-0) 2 hours credit.** 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.
- 3295. PIANO PEDAGOGY (2-1) 2 hours credit.** Open to music majors only. Teaching methods of beginning level private and class instruction. Prerequisite: faculty approval.
- 3300. MUSIC HISTORY I (3-0) 3 hours credit.** The music of western civilization from ancient times to 1750. Prerequisite: ability to read music.
- 3301. MUSIC HISTORY II (3-0) 3 hours credit.** The music of western civilization from 1750 to the present. Prerequisite: ability to read music.
- 3302. FORM AND ANALYSIS (3-0) 3 hours credit.** Structure and analysis of the major forms of music literature. Prerequisites: MUSI 2325 and 2326.
- 3303. COUNTERPOINT (3-0) 3 hours credit.** Overview of modal counterpoint; detailed study of harmonic counterpoint including canon, invention, and fugue. Prerequisite: MUSI 2326 or approval of the instructor.
- 3305. MUSIC FOR CHILDREN (3-0) 3 hours credit.** 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.
- 3312. EARLY CHILDHOOD MUSIC (3-0) 3 hours credit.** Musical characteristics of children, folksong and composed literature, performance activities, song analysis, and techniques for reading and writing music. Open to music majors and minors only.
- 3313. INSTRUMENTAL ENSEMBLE LITERATURE AND PERFORMANCE I (3-0) 3 hours credit.** A study of literature, music selection, rehearsal planning, sound production, and performance practices for beginning and intermediate instrumental ensembles.
- 3314. CHORAL ENSEMBLE LITERATURE AND PERFORMANCE I (3-0) 3 hours credit.** A study of literature, music selection, rehearsal planning, vocal production, and performance practices for beginning and intermediate choral ensembles.
- 3391. COMPOSITION I 3 hours credit.** Individual instruction designed to meet the needs of students desiring to become composers or teachers of composition. Prerequisite: Theory/Comp. majors (grades of B or better in MUSI 2326 and 2186); all other degree options (completion of the Music Theory and Ear Training sequence for the student's degree option).
- 3392. COMPOSITION II 3 hours credit.** A continuation of MUSI 3391. Prerequisite: MUSI 3391.
- 3394. COMPUTERS IN MUSIC (3-0) 3 hours credit.** 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).
- 4101. GERMAN AND ENGLISH DICTION (0-2) 1 hour credit.** A guide to correct pronunciation of German and English in vocal music.
- 4192. INSTRUMENTAL APPLIED CONDUCTING (0-1) 1 hour credit.** A practical application of conducting and rehearsal techniques in a lab situation. May not be taken concurrently with MUSI 0172. Prerequisite: MUSI 4208.
- 4193. CHORAL APPLIED CONDUCTING (0-1) 1 hour credit.** A practical application of conducting and rehearsal techniques in a lab situation. Prerequisite: MUSI 4209.
- 4205. ADVANCED FUNCTIONAL PIANO (2-0) 2 hours credit.** Concentrated study of keyboard skills which include: sightreading, transposition, harmonization, and open score reading. Prerequisite: MUSI 2181 or equivalent proficiency.
- 4208. INSTRUMENTAL CONDUCTING II (2-0) 2 hours credit.** Open to music majors only. A study of advanced conducting techniques, including score reading, rehearsal techniques, ensemble concepts, articulations and musical style. Must be taken concurrently with 0172. Prerequisite: MUSI 3208.
- 4209. CHORAL CONDUCTING II (2-0) 2 hours credit.** Open to music majors only. A study of advanced conducting techniques, including materials for rehearsing a choral ensemble, concepts of voice production, choral blend, and musical styles. Prerequisite: MUSI 3209.
- 4300. JAZZ PERSPECTIVES (3-0) 3 hours credit.** Open to music majors only. An in-depth study of the history, literature, and styles of the jazz idiom.
- 4301. ORCHESTRATION (3-0) 3 hours credit.** Required of music majors. Scoring for strings, woodwinds, brass, percussion and voice as related to orchestra, band, and choir. Prerequisite: MUSI 2326.
- 4302. JAZZ ARRANGING (3-0) 3 hours credit.** Arranging in the jazz and commercial idioms with emphasis on the large jazz ensemble. Prerequisite: MUSI 3225 and 3125 or consent of the instructor.
- 4312. ELEMENTARY MUSIC (3-0) 3 hours credit.** Focus on perception as it relates to children's development and participation in music through singing and playing instruments. Prerequisite: MUSI 3312.
- 4313. INSTRUMENTAL ENSEMBLE LITERATURE AND PERFORMANCE II (3-0) 3 hours credit.** A study of literature, music selection, rehearsal planning, sound production, and performance practices for intermediate and advanced instrumental ensembles. Prerequisite: MUSI 3313 or faculty approval.
- 4314. CHORAL ENSEMBLE LITERATURE AND PERFORMANCE II (3-0) 3 hours credit.** A study of literature, music selection, rehearsal planning, vocal production, and performance practices for intermediate and advanced choral ensembles. Prerequisite: MUSI 3314 or faculty approval.
- 4323. BUSINESS OF MUSIC (3-0) 3 hours credit.** 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.

4324. HISTORY OF MUSICAL THEATRE (3-0) 3 hours credit. A historical survey of American theatre music from the colonial period to the present. Open to all students as a fine arts elective.

4325. MUSIC IN MEDIA (3-0) 3 hours credit. An in-depth survey and production class which presents the ways in which music is used in radio, television, motion pictures, live musical productions, and the recording industry. The class focuses on various functions and styles of music in those media.

4180, 4280, 4380. SPECIAL TOPICS IN MUSIC (variable credit). Special studies in music. Topics will vary from semester to semester. May be repeated for credit when topics vary.

4390. RECORDING TECHNIQUES (2-3) 3 hours credit. Live performance and studio recording techniques. Topics include microphone selection and placement, equalization techniques, overdubbing, console-mixing, sound synchronization, and related recording techniques.

4191, 4291, 4391. CONFERENCE COURSE (Variable credit from 1 to 3 semester hours as arranged). Special problems in music. Topic may change from semester to semester. May be repeated for credit. Prerequisite: consent of the instructor or chair of department.

4394. HONORS THESIS/SENIOR PROJECT (3-0) 3 hours credit. 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.

4491. COMPOSITION III 4 hours credit. A continuation of MUSI 3392. Prerequisite: MUSI 3392.

4492. COMPOSITION IV 4 hours credit. A continuation of MUSI 4491. Prerequisite: MUSI 4491.

Performance

All music majors must schedule MUSI 0040 and receive a grade of P for seven semesters.

Individual instruction courses are open in limited numbers to all University students.

Students should expect, in addition to attending weekly private lessons, a minimum preparation (individual practice) of five hours per week in courses granting two hours credit, 10 hours per week in courses granting three hours credit, and 12 hours per week in courses granting four hours credit.

All private instruction, except 0171, requires a jury.

0040. RECITAL LAB. A performance laboratory for students studying applied music. Music majors are required to attend no fewer than 16 labs and/or department-sponsored performances in a given semester for recital attendance credit.

0171. ELECTIVE PERFORMANCE 1 hour credit. For students who desire elective private instruction in strings, woodwinds, brass, keyboard, voice, or percussion. May be repeated eight times for credit. Prerequisite: faculty approval. May not be substituted for MUSI 0174 or 0175.

1240, 1241, 2240, 2241, 3240, 3241, 4240, 4241. PRIVATE LESSONS IN VOICE 2 hours credit. 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: the preceding course.

3350, 3351. PRIVATE LESSONS IN VOICE 3 hours credit. 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 and permission of the applied jury.

4450, 4451. PRIVATE LESSONS IN VOICE 4 hours credit. 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.

1242, 1243, 2242, 2243, 3242, 3243, 4242, 4243. PRIVATE LESSONS IN PIANO 2 hours credit. 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: the preceding course.

3352, 3353. PRIVATE LESSONS IN PIANO 3 hours credit. 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 and permission of the applied jury.

4452, 4453. PRIVATE LESSONS IN PIANO 4 hours credit. 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.

1244, 1245, 2244, 2245, 3244, 3245, 4244, 4245. PRIVATE LESSONS IN STRINGS 2 hours credit. 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: the preceding course.

3354, 3355. PRIVATE LESSONS IN STRINGS 3 hours credit. 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 and permission of the applied jury.

4454, 4455. PRIVATE LESSONS IN STRINGS 4 hours credit. 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.

1246, 1247, 2246, 2247, 3246, 3247, 4246, 4247. PRIVATE LESSONS IN WOODWINDS 2 hours credit. 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: the preceding course.

3356, 3357. PRIVATE LESSONS IN WOODWINDS 3 hours credit. 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 and permission of the applied jury.

4456, 4457. PRIVATE LESSONS IN WOODWINDS 4 hours credit. 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.

1248, 1249, 2248, 2249, 3248, 3249, 4248, 4249. PRIVATE LESSONS IN BRASS 2 hours credit. 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: the preceding course.

3358, 3359. PRIVATE LESSONS IN BRASS 3 hours credit. 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 and permission of the applied jury.

4458, 4459. PRIVATE LESSONS IN BRASS 4 hours credit. 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.

1250, 1251, 2250, 2251, 3250, 3251, 4250, 4251. PRIVATE LESSONS IN PERCUSSION 2 hours credit. 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: the preceding course.

3360, 3361. PRIVATE LESSONS IN PERCUSSION 3 hours credit. 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 and permission of the applied jury.

4460, 4461. PRIVATE LESSONS IN PERCUSSION 4 hours credit. 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.

1257, 1258, 2257, 2258, 3257, 3258, 4257, 4258. PRIVATE LESSONS IN ORGAN 2 hours credit. 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: the preceding course.

3367, 3368. PRIVATE LESSONS IN ORGAN 3 hours credit. 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 and permission of the applied jury.

4467, 4468. PRIVATE LESSONS IN ORGAN 4 hours credit. 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.

1267, 1268, 2267, 2268, 3267, 3268, 4267, 4268. PRIVATE LESSONS IN HARPSICHORD 2 hours credit. 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: the preceding course.

3377, 3378. PRIVATE LESSONS IN HARPSICHORD 3 hours credit. 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 and permission of the applied jury.

4477, 4478. PRIVATE LESSONS IN HARPSICHORD 4 hours credit. 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 3378.

The Department of Philosophy and Humanities

305 Carlisle Hall • Box 19527 • 817-272-2764 • www.uta.edu/philosophy

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 may be admitted to the major in philosophy upon satisfaction of the following requirements:

- An overall 2.0 GPA, including at least 6 hours of the math and science requirement taken in residence or 12 hours or math and science overall.
- A minimum GPA of 2.5 for all philosophy courses at the time of admission to the major.
- A minimum of 6 hours of philosophy taken at U.T. Arlington.
- A writing sample approved by the Philosophy Department. (See the Undergraduate Advisor for specific conditions on the writing sample and its grading.)

The undergraduate advisor must certify that these requirements have been satisfied. Admission to the philosophy major may take place at any time that the requirements have been satisfied consistently with the requirements of the University.

Requirements for a Bachelor of Arts Degree in Philosophy (Pre-Professional Track)

English

Six hours of composition.

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.

History

1311, 1312, and six additional hours from CLAS 2307, CLAS 3310, CLAS 3320, HIST 2301, HIST 2302, PHIL 3302, PHIL 3304.

Political Science

2311, 2312.

Modern Language

1441, 1442, 2313, and 2314, or equivalent.

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.

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, 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

128 hours, at least 36 of which must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Requirements for a Bachelor of Arts Degree in Philosophy (General Track)

English

Six hours of composition.

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.

History

1311, 1312, and six additional hours from CLAS 2307, CLAS 3310, CLAS 3320, HIST 2301, HIST 2302, PHIL 3302, PHIL 3304.

Political Science

2311, 2312.

Modern Language

1441, 1442, 2313, and 2314, or equivalent.

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.

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, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

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.

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 U.T. 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 U.T. Arlington or other schools.

Pre-Theological: Majors who plan to enter a school of theology should consider a minor in classics and modern 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 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 philosophy 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.

Department of Philosophy and Humanities Faculty

Chair

Associate Professor Bradshaw

Associate Professors

Baker, Burgess-Jackson, Chiasson,

Dyson, Mahoney, Nussbaum, Reeder

Philosophy (PHIL)

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

I. INTRODUCTIONS TO PHILOSOPHY: Any of the following courses may be taken as an Introduction to Philosophy. No sequence or difference in difficulty is implied by the numbers. Any of the courses will satisfy degree requirements in philosophy, art, or music set by many departments for their majors.

1301. CRITICAL THINKING (3-0) 3 hours credit (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.

1304. CONTEMPORARY MORAL PROBLEMS (3-0) 3 hours credit (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.

1310. PHILOSOPHICAL PERSPECTIVES (3-0) 3 hours credit. 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.

2300. INTRODUCTION TO PHILOSOPHY (3-0) 3 hours credit (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.

2304. TOPICS IN APPLIED ETHICS (3-0) 3 hours credit. 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.

HUMA 2301. HUMANITIES I (3-0) 3 hours credit. 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.

II. INTERMEDIATE AND ADVANCED COURSES IN PHILOSOPHY: These courses are designed for students with specific interests in some philosophical area or with a background in philosophy or a related discipline. Unless specified, the courses do not have explicit prerequisites.

2311. LOGIC (3-0) 3 hours credit. 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.

2312. ETHICS (3-0) 3 hours credit. 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.

2313. PHILOSOPHY OF THE ARTS (3-0) 3 hours credit. Problems in the philosophy of art and art criticism; the history of aesthetic theory.

3301. HISTORY OF PHILOSOPHY: ANCIENT PHILOSOPHY (3-0) 3 hours credit. The beginning and the early developments of the western philosophic tradition. Ancient Greek philosophy, basically the Pre-Socratics, Socrates, Plato and Aristotle.

3302. HISTORY OF PHILOSOPHY: ROMAN AND MEDIEVAL PHILOSOPHY (3-0) 3 hours credit. Post-Aristotelians (e.g., the later Stoics, the Epicureans, Neo-Platonists); philosophy of the early Church Fathers through Aquinas and later Scholastics.

3303. HISTORY OF PHILOSOPHY: RENAISSANCE AND EARLY MODERN EUROPEAN PHILOSOPHY (3-0) 3 hours credit. 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.

3304. HISTORY OF PHILOSOPHY: NINETEENTH AND EARLY TWENTIETH CENTURY PHILOSOPHY (3-0) 3 hours credit. Major philosophers from Kant to the early 20th century.

3307. SEMINAR IN RESEARCH METHODS AND PHILOSOPHICAL WRITING (3-0) 3 hours credit. Examination of philosophical methodology; philosophical analysis, philosophical writing, discipline-specific bibliographic tools, etc. Students write a series of short papers on topics of interest.

3315. ORIENTAL PHILOSOPHY AND RELIGION (3-0) 3 hours credit. Some of the major Eastern traditions including Confucianism, Taoism, Buddhism, and Hinduism. The ancient roots and developments of these traditions and some of their modern and contemporary manifestations.

3316. PHILOSOPHY OF RELIGION (3-0) 3 hours credit. 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.

3317. INTERMEDIATE LOGIC (3-0) 3 hours credit. Begins with predicate calculus and includes such topics as soundness and completeness theorems, definite descriptions, identity, modal logic, and others. Prerequisite: PHIL 2311 or equivalent.

3318. THE PHILOSOPHY OF SCIENCE AND TECHNOLOGY (3-0) 3 hours credit. 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.

3319. BIOMEDICAL ETHICS (3-0) 3 hours credit. 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.).

3320. PHILOSOPHY OF LAW (3-0) 3 hours credit. 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.

3321. PHILOSOPHY OF LANGUAGE (3-0) 3 hours credit. 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.

3390. HONORS COLLOQUIUM (3-0) 3 hours credit. 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.

4318. PHILOSOPHY AND LITERATURE (3-0) 3 hours credit. 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.

4385. THEORY OF KNOWLEDGE (3-0) 3 hours credit. Problems which arise from attempts to give an account of human knowledge. Skepticism, perception, induction, or the nature of truth.

4386. METAPHYSICS (3-0) 3 hours credit. 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.

4387. TOPICS IN VALUE THEORY (3-0) 3 hours credit. 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.

4388. TOPICS IN THE HISTORY OF PHILOSOPHY (3-0) 3 hours credit. 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.

4389. TOPICS IN PHILOSOPHY AND THE SOCIAL SCIENCES (3-0) 3 hours credit. 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.

4391. UNDERGRADUATE CONFERENCE COURSE (3-0) 3 hours credit. Topics assigned on an individual basis covering research of individual students or study in designated areas. May be repeated for credit.

4394. SENIOR THESIS (3-0) 3 hours credit. 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.

Humanities (HUMA)

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.

2301. HUMANITIES I (3-0) 3 hours credit. 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.

3301. INTERDISCIPLINARY RESEARCH METHODS (3-0) 3 hours credit. 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.

4301. CULTURE AND IDEAS (3-0) 3 hours credit. 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.

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.

The Department of Political Science

206 University Hall • Box 19539 • 817-272-2991 • www.uta.edu/pols/pols.htm

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 provide an orientation to national, state, and local government and to stimulate interest in participation in the public sector;
- To illustrate the linkage between private or individual values and public policy;
- To provide descriptive generalizations as well as to stimulate critical evaluations of various political systems, ideologies, and policy processes; and
- To develop in students a cosmopolitan perspective (with respect to both cross-cultural and comparative United States studies) of political phenomena. This is accomplished by exposing students to diverse methodologies, theories, and approaches to political phenomena; providing basic analytical skills and knowledge for conducting political research; and conveying an ability to recognize the value basis for public sector policies.

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, U.T. 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 U.T. Arlington, or 40 hours of core with 12 hours at U.T. 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

English

Six hours (1301 and 1302 or suitable substitutes).

Literature

Six hours of English or modern language literature at the sophomore level or above.

History

1311, 1312.

Modern Language

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

8 hours (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

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 Political Science department.

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, 4392, 4395.

Area II Comparative Politics: 3304, 3314, 3316, 3317, 3318, 4313, 4361, 4362, 4363, 4392, 4395.

Area III International Politics: 3329, 4334, 4336, 4355, 4360, 4365, 4392, 4395.

Area IV Public Law: 3330, 3331, 3333, 3335, 4331, 4332, 4392, 4395.

Area V Public Administration and Policy Studies: 3303, 3305, 3307, 3312, 4303, 4351, 4353, 4354, 4392, 4395.

Minor

18 hours, at least six of which must be 3000/4000 level.

Total

127 hours, at least 36 of which must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Requirements for a Bachelor of Arts Degree in Political Science (Pre-Law Option)

English

Six hours (1301 and 1302 or suitable substitutes).

Literature

Six hours of English or modern language literature at the sophomore level or above.

History

1311, 1312.

Modern Language

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

8 hours (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

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 Political Science department.

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 (as listed under the Requirements for a Bachelor of Arts Degree in Political Science); three hours in political thought (as listed under the Requirements for a Bachelor of Arts Degree in Political Science); nine hours in public law (3330, 3331, 3333, 3335, 4331, and/or 4332); 15 additional hours from three separate areas (as listed under the Requirements for a Bachelor of Arts Degree in Political Science) other than the public law area.

Minor

18 hours, including six hours of 3000/4000-level courses in history, English, business, philosophy, or other minor as approved by the departmental advisor.

Related Required Courses

Nine hours from at least two different departments: COMM 4310, SPCH 3305; CRCJ 4301, 4331; ENGL 4371; HIST 3317, 3318, 3319, 3320, 4350; PHIL 1301, 2311, 3320; SOCI 3313, 3357; BLAW 3311, 3312, 3313.

Total

127 hours, at least 36 of which must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Requirements for a Bachelor of Arts Degree in Political Science

(Policy/Public Administration Option)

English

Six hours (1301 and 1302 or suitable substitutes).

Literature

Six hours of English or modern language literature at the sophomore level or above.

History

1311, 1312.

Modern Language

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

8 hours (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

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 Political Science department.

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 (as listed under the Requirements for a Bachelor of Arts Degree in Political Science); three hours in political thought (as listed under the Requirements for a Bachelor of Arts Degree in Political Science); 12 hours in policy/public administration (3303 and/or 3312; and six or nine hours from 3305, 3307, 4303 4351, 4353, 4354, and 4393); twelve additional advanced hours from three separate areas (as listed under the Requirements for a Bachelor of Arts Degree in Political Science) other than the public administration and policy studies area.

Minor

18 hours, at least six of which must be 3000/4000 level.

Total

127 hours, at least 36 of which must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Requirements for a Bachelor of Arts Degree in Political Science

(International Studies Option)

English

Six hours (1301 and 1302 or suitable substitutes).

Literature

Six hours of English or modern language literature at the sophomore level or above.

History

1311, 1312.

Modern Language

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

8 hours (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

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 Political Science department.

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 (as listed under the Requirements for a Bachelor of Arts Degree in Political Science); three hours in political thought (as listed under the Requirements for a Bachelor of Arts Degree in Political Science); 18 hours in core courses: three hours in introductory comparative politics (3304 or 4313); three hours in introductory international politics (4360); six additional hours in comparative politics from: (3304, 3314, 3316, 3317, 3318, 4313, 4361, 4362, 4363); six additional hours in international politics from: (3317, 3329, 4334, 4336, 4355, 4360, 4365); six hours from two separate areas (I, IV, V, or political thought as listed under the Requirements for a Bachelor of Arts Degree in Political Science).

Minor

18 hours, at least six of which must be 3000/4000 level.

Total

127 hours, at least 36 of which must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Teacher Certification

Students interested in Texas Teacher Certification should consult the School 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 BUSA 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 SPCH 1301, 2305, 3302, or 3315; or (c) successful completion of other courses approved by the Undergraduate Assembly; or (d) passing the University oral communication competency exam. 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.

Department of Political Science Faculty

Chair

Professor Story

Professors

Hekman, Marshall

Associate Professors

Cichock, Clark, Garcia y Griego, Gutierrez,

Ignagni, Knerr, Moon, Moore, Saxe, Simowitz

Assistant Professors

Deen, Farrar-Myers, Lazarus

Political Science (POLS)

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

PREREQUISITES FOR ADVANCED COURSES: POLS 2311 and 2312 or equivalent are prerequisites for all advanced courses in political science (3000/4000 level). Exceptions must be approved by the Department of Political Science. There is no distinction between 3000/4000 level courses in political science.

Foundations of Political Science

2311. GOVERNMENT OF THE UNITED STATES (3-0) 3 hours credit (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.

2312. STATE AND LOCAL GOVERNMENT (3-0) 3 hours credit (GOVT 2306). The principles and organization of American state, county, and municipal government, together with current problems and the constitution and government of Texas.

3310. RESEARCH METHODS AND POLITICAL ANALYSIS (3-0) 3 hours credit. 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.

3313. MODERN CRITICS OF SOCIETY AND POLITICS (3-0) 3 hours credit. Designed for both political science and other majors. Focus on writers like Banfield, Galbraith, Marcuse, Reich, Revel, Skinner, and Toffler.

4322. ISSUES IN POLITICAL THEORY (3-0) 3 hours credit. 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.

4323. FEMINIST POLITICAL THOUGHT (3-0) 3 hours credit. 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. Also listed as WOMS 4323; credit will be given in only one department.

4327. POLITICAL IDEAS OF THE ANCIENT WORLD (3-0) 3 hours credit. Principal theorists and schools of political thought prior to 1500, with emphasis upon those making significant contributions to the political heritage of Western Europe.

4328. MODERN POLITICAL IDEAS (3-0) 3 hours credit. The development of political thought from Machiavelli to Marx. Emphasis on the Renaissance, Classical Liberalism, French Radicalism and Marxism.

4329. CONTEMPORARY CONTROVERSIES IN POLITICAL THEORY (3-0) 3 hours credit. 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.

4393. PREPARING FOR CAREERS IN POLITICAL SCIENCE (3-0) 3 hours credit. 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. A maximum of six semester hours of credit in Political Science Internship may be used to satisfy a political science elective requirement for graduation.

Political Behavior and Processes

3306. LEGISLATIVE ORGANIZATION AND PROCEDURE (3-0) 3 hours credit. Internal and external influences on the U.S. Congress: rules, norms, committees, seniority, political parties, presidents, media, constituents and interest groups.

3311. PUBLIC OPINION (3-0) 3 hours credit. 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.

3327. AMERICAN POLITICAL PARTIES (3-0) 3 hours credit. 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.

4314. SEPARATION OF POWERS AND AMERICAN INSTITUTIONS (3-0) 3 hours credit. 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.

4316. WOMEN IN THE POLITICAL PROCESS (3-0) 3 hours credit. This course exposes students to the unique experiences of women in

the political process, the impact of these experiences on the political system, and explores theories of gender and politics. Also listed as WOMS 4316; credit will be given in only one department.

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.

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.

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 relations with other ethnic groups. Also listed as MAS 4319; credit will be given in only one department.

4324. ELECTORAL BEHAVIOR (3-0) 3 hours credit. Major theories of candidate strategy and voter choice, including rational behavior and empirical democratic theory. Introduction to voting behavior analysis in contemporary elections.

4326. ELECTION STRATEGY AND CAMPAIGN MANAGEMENT (3-0) 3 hours credit. 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.

4330. THE U.S. PRESIDENCY (3-0) 3 hours credit. The U.S. Presidency, including sources of power, changes in the office over time, and the relationship between the individual and the institution.

4333. PRESIDENTIAL DOMESTIC POLICY MAKING (3-0) 3 hours credit. Explores the policy process from the perspective of the U.S. president, examining the president's influence through the policy stages.

Comparative Politics

3304. INTRODUCTION TO COMPARATIVE POLITICS (3-0) 3 hours credit. Cross-national and cross-cultural comparisons of political systems. Institutional structure, political process, dynamics of change, and ideology.

3314. POLITICAL SYSTEMS OF EASTERN AND CENTRAL EUROPE (3-0) 3 hours credit. The political institutions and processes of the former communist systems of Eastern Europe and the Baltic, as well as selected Central European states. Also listed as RUSS 3314; credit will be given in only one department.

3316. DICTATORSHIP AND DEMOCRACY IN LATIN AMERICAN POLITICS (3-0) 3 hours credit. 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.

3317. MEXICAN POLITICS AND U.S.-MEXICO RELATIONS (3-0) 3 hours credit. Current economic and political systems of Mexico and relevant issues in U.S.-Mexico relations. Trade, immigration, economic dependency, energy, contraband, and other topics. Also listed as MAS 3317; credit will be given in only one department.

3318. POLITICAL SYSTEMS OF EAST ASIA (3-0) 3 hours credit. The political institutions and dynamics in the political systems of East Asia including China and Japan.

4313. POLITICAL DEVELOPMENT (3-0) 3 hours credit. The concept of political development, political values, structures, issues, and patterns of political processes in the pre-industrial, industrial, and post-industrial political communities.

4361. THE POLITICAL ENVIRONMENT OF RUSSIA AND THE SUCCESSOR STATES (3-0) 3 hours credit. The domestic political systems of Russia and the other former Soviet republics. The communist state in retrospect. Development of political actors, institutions, and parties. Also listed as RUSS 4361; credit will be given in only one department.

4362. RUSSIA AND THE SUCCESSOR STATES TODAY (3-0) 3 hours credit. 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. Also listed as HIST and RUSS 4362; credit will be given in only one department.

International Relations

3329. THE POLITICS OF INTERNATIONAL CONFLICT (3-0) 3 hours credit. The impact of factors such as national security and political ideologies on international conflict and the role of international organizations in maintaining world peace.

4334. PRESIDENTIAL FOREIGN POLICY MAKING (3-0) 3 hours credit. 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.

4336. CONTEMPORARY UNITED STATES FOREIGN POLICY (3-0) 3 hours credit. Theories and analytical structure for understanding United States foreign policy. Policy examined from theoretical, structural, regional, and topical perspectives.

4355. INTERNATIONAL POLITICS (3-0) 3 hours credit. 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.

4360. THEORIES OF THE INTERNATIONAL SYSTEM (3-0) 3 hours credit. Major theories and approaches to the international system. Traditionalist, behavioralist, and post-behavioralist theories rather than institutional, legal, or topical considerations.

4365. FOREIGN POLICIES OF RUSSIA AND THE SUCCESSOR STATES (3-0) 3 hours credit. The foreign policies of Russia and other former Soviet republics. Development of their policy-making 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.

Public Law

3330. JUDICIAL BEHAVIOR AND THE JUDICIAL PROCESS (3-0) 3 hours credit. 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.

3331. CONTEMPORARY ISSUES IN CIVIL LIBERTIES (3-0) 3 hours credit. 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.

3333. JURISPRUDENCE (3-0) 3 hours credit. 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.

3335. CRIMINAL LAW (3-0) 3 hours credit. 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.

4101. MOOT COURT (1-0) 1 hour credit. 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.

4331. THE UNITED STATES CONSTITUTION: STRUCTURE (3-0) 3 hours credit. The structure of government in the United States—the principles of separation of powers, the federal system and the relation of the judicial process to these topics.

4332. U.S. CONSTITUTIONAL LAW: FUNDAMENTAL RIGHTS (3-0) 3 hours credit. U.S. Supreme Court decision making involving the Bill of Rights and other fundamental rights. Especially recommended for pre-law majors.

Public Administration and Public Policy

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.

3305. GOVERNMENT IN URBAN AMERICA (3-0) 3 hours credit. 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.

3307. COMPARATIVE STATE AND LOCAL POLITICS (3-0) 3 hours credit. 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.

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.

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.

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.

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.

4354. THE POLITICS OF REFORM POLICY (3-0) 3 hours credit.

Current and past efforts to change the way American government functions. Sources of reform, consequences of reform, and case studies of current reforms.

Other Courses**3308. POLITICS OF A TEXAS CITY: ARLINGTON CITY POLITICS (3-0) 3 hours credit.**

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.

3390. HONORS COLLOQUIUM (3-0) 3 hours credit. An interdisciplinary course designed to meet the needs of advanced undergraduates in the honors program. Prerequisite: participation in the honors program and/or permission of the instructor.

4300. POLITICS IN FILM (3-0) 3 hours credit. 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.

4392. SPECIAL TOPICS IN POLITICAL SCIENCE (3-0) 3 hours credit. May be repeated for credit as topics change.

4394. HONORS THESIS/SENIOR PROJECT (3-0) 3 hours credit. 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.

4395. CONFERENCE COURSE—READINGS IN POLITICAL SCIENCE (3-0) 3 hours credit. 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 chair. Prerequisite: permission of the undergraduate advisor and written consent of the instructor.

The Department of Sociology and Anthropology

430 University Hall • Box 19599 • 817-272-2661 • www.uta.edu/sociology-anthropology

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 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.

Modern Language

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 architecture, art, dance, music, or theatre arts.

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

39 hours including 1311, 3305, 3352 and 4311; and one course (three hours) in anthropology.

Total

125 hours, at least 36 of which must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Optional Minor

Students majoring in sociology may pursue a minor in another field of study by filing a statement of intent with the Program Director. Requires 18 hours, of which at least six must be at 3000/4000 level.

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.

The areas of specialization are:

- **Deviance and Social Control:** 3312, 3313, 3315, 3317, 3320, 3321, 3357, 4315.
- **Family and Gender Studies:** 3322, 3328, 3331, 3334, 3356, 4303, ANTH 3338.
- **Research and Evaluation:** 3305, 3352, 3354, 3355, 4306, 4362.
- **Social Psychology:** 3315, 3317, 3318, 3319, 3320, 3321, 3323, 3326, 4309, 4332, ANTH 3331.

- **Social Diversity:** 3336, 3340, 3343, 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.

Teacher Certification

Students interested in Texas Teacher Certification should consult the School 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 Bachelor of Arts Degree in Anthropology

English

Six hours of composition.

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.

Modern Language

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

Three hours.

Fine Arts

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

Philosophy

1301 or 2311

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

39 hours, including ANTH 2307, ANTH 2322, ANTH 2339, SOCI 3352 and a minimum of one 3000/4000 level course in each of archaeology, biological, and cultural anthropology as approved by advisor.

Minor

18 hours, of which six must be 3000/4000 level.

Total

125 hours, at least 36 of which must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Requirements for a Minor in Anthropology

Eighteen hours of anthropology, six of which must be advanced hours.

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 BUSA 2303; (b) 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) SPCH 1301, 2305, or 3302; (b) designated, approved courses in Anthropology and Sociology; (c) other courses approved by the Undergraduate Assembly; or (d) the University oral communication competency examination. 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.

Department of Sociology and Anthropology Faculty

Chair

Professor Young

Professors

Agger, Bastien, Eve, Shelton, Stacey, Weed, Williams, Young

Associate Professors

Dunn, Petruso, Reed-Danahay, Rouse, Smith

Assistant Professor

McBrier, Zlolniski

Sociology (SOCI)

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

1311. INTRODUCTION TO SOCIOLOGY (3-0) 3 hours credit (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.

2312. CONTEMPORARY SOCIAL ISSUES (3-0) 3 hours credit (SOCI 1306). Selected topics in contemporary social issues. May be repeated once for credit with departmental permission. Formerly listed as SOCI 1312.

3305. INTRODUCTION TO SOCIAL RESEARCH (3-0) 3 hours credit. Required of all sociology majors. Methods of setting up a research project will be covered, including the collection and analysis of data. Prerequisite: sophomore standing or permission of the instructor.

3312. JUVENILE DELINQUENCY (3-0) 3 hours credit. The delinquent as a person and delinquency as a social problem, theories of delinquency, and methods of correctional treatment and preventive programs. Prerequisite: sophomore standing or permission of the instructor.

3313. CRIMINOLOGY (3-0) 3 hours credit. Crime-related social issues. Defining and measuring crime, surveying major theoretical explanations of criminal behavior, and society's formal responses to crime and criminals. Prerequisite: sophomore standing or permission of the instructor.

3315. SOCIAL PSYCHOLOGY OF CRIME (3-0) 3 hours credit. 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. Prerequisite: sophomore standing or permission of instructor.

3317. INDIVIDUAL AND SOCIETY (3-0) 3 hours credit. 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. Prerequisite: sophomore standing or permission of the instructor.

3318. SELF AND SOCIAL IDENTITY (3-0) 3 hours credit. 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. Prerequisite: sophomore standing or permission of instructor.

3319. SMALL GROUPS (3-0) 3 hours credit. 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. Prerequisite: sophomore standing or permission of the instructor.

3320. DEVIANCE: SOCIAL AND PERSONAL (3-0) 3 hours credit. 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. Prerequisite: sophomore standing or permission of the instructor.

3321. SOCIALIZATION AND SOCIAL CONTROL (3-0) 3 hours credit. 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 life-cycle. The effect of socialization on conformity and deviance. Prerequisite: sophomore standing or permission of the instructor.

3322. FAMILY VIOLENCE (3-0) 3 hours credit. Examines domestic and intimate violence in the context of sociological/anthropological theories and research. Incidence, causes, and social responses to family violence are reviewed, as are crosscultural aspects of sex roles and domestic violence. Prerequisite: sophomore standing or

permission of the instructor. Also listed as WOMS 3322; credit will not be given for both.

3323. RIOTS, FADS, CULTS, AND SOCIAL MOVEMENTS (3-0) 3 hours credit. The social origins, leadership, ideology, and organizational patterns of collective behavior and social movements with attention to their role in effecting social change.

3326. SOCIOLOGY OF LANGUAGE (3-0) 3 hours credit. Language behavior as a social variable. The role of language in international relations and crosscultural contact, as well as the social position of language minorities including the deaf.

3327. INTERCULTURAL INTERACTION (3-0) 3 hours credit. Patterns and variations in interactions involving people from different cultures and subcultures. Intercultural interaction, both within multicultural societies and between persons from different societies.

3328. MARITAL AND SEXUAL LIFESTYLES (3-0) 3 hours credit. 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. Also listed as WOMS 3328; credit will not be given for both.

3331. SOCIOLOGY OF THE FAMILY (3-0) 3 hours credit. 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. Also listed as WOMS 3331; credit will not be given for both.

3334. GENDER ROLES (3-0) 3 hours credit. 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. Also listed as WOMS 3334; credit will not be given for both.

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.

3340. SOCIOLOGY OF EDUCATION (3-0) 3 hours credit. 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.

3343. POVERTY AND HOMELESSNESS IN AMERICA (3-0) 3 hours credit. Major substantive issues related to poverty and homelessness; understanding the structural causes and the stigma of poverty. Problems of the working poor and homeless; community responses to these problems.

3346. U.S. INTO THE TWENTY-FIRST CENTURY (3-0) 3 hours credit. 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.

3350. POWER AND BUREAUCRACY (3-0) 3 hours credit. The development, structure, and operation of formal organizations in society, with emphasis on internal processes, the effects of technology, and variations in the institutional setting. Prerequisite: sophomore standing or permission of instructor.

3351. WORK IN MODERN SOCIETY (3-0) 3 hours credit. The changing patterns of work in modern society. The impact of tech-

nology, changing characteristics of the work force, and developments in organizational and occupational structure are examined. Prerequisite: sophomore standing or permission of the instructor.

3352. SOCIAL STATISTICS (3-0) 3 hours credit. 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 instructor.

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.

3354. POPULATION AND SOCIETY (2-2) 3 hours credit. The factors and processes determining population size, composition, and distribution. The relationship of population to social organizations and human welfare, recent population trends, policies, and programs.

3355. COMPUTER APPLICATIONS IN THE SOCIAL SCIENCES (3-0) 3 hours credit. 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.

3356. WOMEN, WORK AND SOCIAL CHANGE (3-0) 3 hours credit. 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. Also listed as WOMS 3356; credit will be granted only once.

3357. LAW AND SOCIETY (3-0) 3 hours credit. 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.

3360. SCIENCE AND SOCIETY (3-0) 3 hours credit. The influences of sociological forces on the development of scientific thought, investigations, and applications. Related economic and political influences, and the dynamics of reciprocal scientific and sociocultural developments. Prerequisite: sophomore standing or permission of the instructor.

3390. HONORS COLLOQUIUM (3-0) 3 hours credit. 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.

4191, 4291, 4391. CONFERENCE COURSE (Variable credit from 1 to 3 semester hours as arranged). Topics assigned on an individual basis covering personal research or study in the designated areas. Prerequisite: permission of the instructor.

4303. WOMEN IN SOCIETY (3-0) 3 hours credit. 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. Also listed as WOMS 4303; credit will not be given for both.

4306. QUALITATIVE RESEARCH METHODS (3-0) 3 hours credit. 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.

4309. SOCIAL POLICY AND HEALTH CARE DELIVERY (3-0) 3 hours credit. Factors influencing social policy in contemporary and future health care delivery. Topics examined include bioethics, managed care, patients' rights, comparative health systems, and the role of social processes in decision-making. Prerequisite: sophomore standing or permission of the instructor.

4310. MINORITIES (3-0) 3 hours credit. The role of racial and minority categories in the social order. The role, and the associated problems, of groups within the U.S. culture and the impact of these persons on the total cultural milieu. Prerequisite: sophomore standing or permission of the instructor. Also listed as MAS 4310; credit will not be given for both.

4311. SOCIOLOGICAL THEORY (3-0) 3 hours credit. 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. Prerequisite: junior standing or permission of the instructor.

4315. VIOLENCE IN SOCIETY (3-0) 3 hours credit. 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.

4318. SOCIAL CHANGE AND CONFLICT (3-0) 3 hours credit. The sources of conflict and social change as an outgrowth of inequality. Movements arising out of such conflicts which attempt to bring about fundamental social change. Prerequisite: sophomore standing or permission of the instructor.

4320. MEDICAL SOCIOLOGY (3-0) 3 hours credit. 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.

4332. SOCIOLOGY OF MENTAL AND BEHAVIORAL DISORDERS (3-0) 3 hours credit. Mental and behavioral disorders in the social environment, with emphasis on selected aspects of the social construction of reality which influence identifying, categorizing, and reacting to such disorders. Prerequisite: sophomore standing or permission of the instructor.

4362. RESEARCH PRACTICUM (2-2) 3 hours credit. Provides students an opportunity to gain practical experience in applying acquired methodological and statistical analyses skills through in-depth participation in a selected research project. Prerequisite: SOCI 3305 and SOCI 3352 or permission of the instructor.

4365. TOPICS IN SOCIOLOGY (3-0) 3 hours credit. 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.

4370. SENIOR RESEARCH SEMINAR (2-2) 3 hours credit. 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. Prerequisites: SOCI 3352 and SOCI 3305 or permission of the instructor.

4394. HONORS THESIS/SENIOR PROJECT (3-0) 3 hours credit. 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.

Anthropology (ANTH)

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

1306. INTRODUCTION TO ANTHROPOLOGY (3-0) 3 hours credit (ANTH 2346). The major fields of anthropology: ethnology, archaeology, physical anthropology, and linguistics.

2301. MEETING THE NEW MILLENNIUM: ANTHROPOLOGY OF THE FUTURE (3-0) 3 hours credit. Futuristic predictions of cultural changes based on evolutionary history, trends, past technology, and images from fiction and religion. Cultural analysis of technology, ecology, and sociology providing a humanistic perspective entering the new millennium.

2307. BIOLOGICAL ANTHROPOLOGY (3-0) 3 hours credit. Human variation and human evolution. Genetics, living and fossil non-human 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.

2322. GLOBAL CULTURES (3-0) 3 hours credit. 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.

2339. PRINCIPLES OF ARCHAEOLOGY (3-0) 3 hours credit. 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.

3309. HUMAN EVOLUTION (3-0) 3 hours credit. Paleoanthropology; an exploration of the fossil evidence for the evolution of our taxonomic family, the Hominidae, from over four million years ago to historic times. Prerequisite: ANTH 1306 or 2307 or permission of the instructor.

3311. HUMAN ADAPTATION AND THE CONCEPT OF RACE (3-0) 3 hours credit. 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 as 4308. Credit cannot be given for both 3311 and 4308.

3313. PRIMATE EVOLUTION AND BEHAVIOR (3-0) 3 hours credit. An overview of the primate order. Primate evolution, ecology, adaptation, and behavior. Prerequisite: ANTH 1306 or 2307 or permission of the instructor.

3323. FOLK AND PEASANT SOCIETIES (3-0) 3 hours credit. The development and patterning of folk and peasant societies in various parts of the world. Archaeological and historical records as well as contemporary ethnographic studies. May be repeated for credit whenever the content varies. Formerly listed as ANTH 4323. Credit cannot be given for both ANTH 3323 and 4323.

3324. THE ANTHROPOLOGY OF EUROPE (3-0) 3 hours credit. Culture and society in contemporary Europe, with emphasis on ethnographic studies of rural and urban settings. Topics include sociocultural change, family systems, foodways, social class and ethnicity, gender ideologies, political institutions. Anthropological perspectives on the "New Europe," including the growth and impact of the European Union.

3325. ETHNOGRAPHY OF SOUTH AMERICA (3-0) 3 hours credit. 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.

3328. CIVILIZATIONS OF SOUTH AMERICA (3-0) 3 hours credit. 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.

3330. CULTURAL DIVERSITY AND IDENTITY (3-0) 3 hours credit. 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.

3331. CULTURE AND PERSONALITY (3-0) 3 hours credit. 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.

3333. NORTH AMERICAN INDIANS (3-0) 3 hours credit. North American Indian cultures and their development both before and after European contact.

3336. ANTHROPOLOGY OF RELIGION (3-0) 3 hours of credit. A crosscultural study of magic and religion. Theories of the origin and function of magic and religion in pre-industrial societies.

3338. COMPARATIVE KINSHIP AND FAMILY SYSTEMS (3-0) 3 hours credit. 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.

3340. ANTHROPOLOGY AND EDUCATION (3-0) 3 hours credit. Global perspective on human teaching and learning in a variety of cultural contexts. Ethnographic methods in educational research and anthropological approaches to education. Western and nonwestern childrearing at home and in schools. The educational problems of minorities and immigrants in modern nation-states.

3341. RESEARCH METHODS IN CULTURAL ANTHROPOLOGY (3-0) 3 hours credit. 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.

3346. CULTURES OF THE AMERICAN SOUTHWEST (3-0) 3 hours credit. The ethnography, prehistory, and culture contacts of Native Americans of Arizona, New Mexico, Southwestern Colorado, Southeastern Utah, and West Texas.

3350. NORTH AMERICAN ARCHAEOLOGY (3-0) 3 hours credit. 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.

3353. STONE AGE HUNTERS AND FARMERS (3-0) 3 hours credit. 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.

3355. THE RISE OF CIVILIZATION (3-0) 3 hours credit. 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.

3358. TOPICS IN ARCHAEOLOGY (3-0) 3 hours credit. 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.

3366. SEX, GENDER, AND CULTURE (3-0) 3 hours credit. 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. Also listed as WOMS 3366; credit will not be given for both.

3369. MEDICAL ANTHROPOLOGY (3-0) 3 hours credit. 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.

3370. ARCHAEOLOGY OF THE PREHISTORIC AEGEAN (3-0) 3 hours credit. 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.

3371. ARCHAEOLOGY OF GREECE (3-0) 3 hours credit. 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.

3372. ARCHAEOLOGY OF THE ANCIENT NEAR EAST (3-0) 3 hours credit. 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.

3373. ARCHAEOLOGY OF EGYPT (3-0) 3 hours credit. The culture of ancient Egypt from its earliest occupation until the Arab invasion (7th century A.C.), with emphasis on the first 20 pharaonic 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.

4191, 4291, 4391. CONFERENCE COURSE (Variable credit from 1 to 3 semester hours as arranged). Topics assigned on an individual basis covering personal research or study in the designated area. Prerequisite: permission of the instructor.

4306. HUMAN OSTEOLOGY (3-0) 3 hours credit. Detailed examination of human skeletal morphology. Topics include form and function of all skeletal elements in the human body, differentiation of each bone, left and right side identification, identification of fragmented remains, and muscle attachments and articulations. Content useful in forensic anthropology, archaeology, and hominid paleontology.

4307. FORENSIC ANTHROPOLOGY (3-0) 3 hours credit. Estimating age, sex, race, stature, pathology, cause of death, and time since death from human remains. The role of skeletal biology and physical anthropology in criminal investigation. Case studies will be used to demonstrate application of the methods studied. Prerequisite: ANTH 4306 or permission of instructor.

4308. ADVANCED FORENSIC ANTHROPOLOGY (3-0) 3 hours credit. Explores in greater detail the methodology of forensic anthropology surveyed in ANTH 4307, including all aspects of the recovery and analysis of skeletal remains. Estimation of biological factors (age at death, sex, ancestry, and stature) and postmortem interval, analysis of trauma, and field recovery techniques via laboratory materials and literature review. Knowledge of human anatomy, particularly osteology, is necessary. Prerequisite: ANTH 4307 or permission of the instructor.

4322. PROBLEMS IN ANTHROPOLOGY (3-0) 3 hours credit. Intensive examination of an important problem in anthropological research selected by the instructor. May be repeated for credit whenever the topic varies. Prerequisite: ANTH 1306 or 2322 or permission of instructor.

4342. TOPICS IN CULTURAL ANTHROPOLOGY (3-0) 3 hours credit. Selected topics, to include anthropological theory, population and cultural ecology, semiotics, and humanistic anthropology. May be repeated for credit with departmental permission.

4348. POLITICAL ANTHROPOLOGY (3-0) 3 hours credit. 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.

4393. INTERNSHIP IN ANTHROPOLOGY (3-0) 3 hours credit.

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. Prerequisites: ANTH 2307, 2322, or 2339; permission of the instructor; and junior or senior standing.

4394. HONORS THESIS/SENIOR PROJECT (3-0) 3 hours credit.

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.

4398, 4698. SUMMER FIELD SCHOOL IN ANTHROPOLOGY (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.

Southwestern Studies

6th Floor, Central Library • Box 19497 • 817-272-3997

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 U.T. 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

Director

Professor Francaviglia

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.

Anthropology

ANTH 3333. NORTH AMERICAN INDIANS (3-0) 3 hours credit. North American Indian cultures and their development both before and after European contact. Prerequisite: ANTH 1306 or 2322 or permission of instructor.

ANTH 3346. CULTURES OF THE AMERICAN SOUTHWEST (3-0) 3 hours credit. The ethnography, prehistory, and culture contacts of Native Americans of Arizona, New Mexico, Southwestern Colorado, Southeastern Utah, and West Texas. Prerequisite: ANTH 1306 or 2322 or permission of the instructor.

ANTH 3350. NORTH AMERICAN ARCHAEOLOGY (3-0) 3 hours credit. Prehistoric cultural adaptations in North America from human arrival to European contact. Topics include the question of when and how humans entered the New World; the domestication of native plants and animals; and the evolution of complex civilizations in Mexico and Central America. Prerequisite: ANTH 1306 or 2339 or permission of the instructor.

Architecture

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.

Art History

ART 3320. MESOAMERICAN ART (3-0) 3 hours credit. Art and architecture of the Aztec, Maya, and other selected cultures of Mexico and Central America.

English

ENGL 3300. SPECIAL TOPICS IN LITERATURE (3-0) 3 hours credit. 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 3343. TOPICS IN AMERICAN ETHNIC LITERATURE (3-0) 3 hours credit. Examination of African-American, native-American, Mexican-American or other ethnic literatures. May be repeated for credit when course content changes.

ENGL 3375. LITERARY WRITING (3-0) 3 hours credit. The craft of narrative, poetic, and dramatic discourses. Attention to figurative language, characterization, dialogue, point of view, and poetic structure as well as other elements of the craft. Assignments may include the writing of character sketches, short stories, poetry in various forms, and one-act play.

ENGL 4336. SPECIAL TOPICS IN AMERICAN LITERATURE (3-0) 3 hours credit. Important themes, movements, regions, genres, or crosscultural relationships. May be repeated for credit when course content changes.

Geography

GEOG 3371. IMAGES OF THE SOUTHWEST (3-0) 3 hours credit. 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." Also listed as HIST 3371; credit will be granted only once.

GEOG 4301. HISTORICAL GEOGRAPHY AND CARTOGRAPHY (3-0) 3 hours credit. An introduction to cultural and historical geography with an emphasis on cartography and the use of maps in research and teaching. Also listed as HIST 4301; credit will be granted only once.

GEOG 4310. GEOGRAPHY OF THE GREATER SOUTHWEST (3-0) 3 hours credit. The geography of the Greater Southwest to include Texas, New Mexico, Arizona, California, and Mexico. In particular, the course will examine 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) 3 hours credit. Selected topics in an identified area of geography. The course may be repeated for credit. Prerequisite: approval of instructor.

GEOG 4391, 4291, 4191. UNDERGRADUATE CONFERENCE COURSE (Variable credit as arranged). Topics assigned on an individual basis covering personal research or study in designated areas. Prerequisite: permission of the instructor.

History

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 3352. THE SOUTHWEST (3-0) 3 hours credit. 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.

HIST 3357. THE EARLY FRONTIER (3-0) 3 hours credit. 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) 3 hours credit. 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 3363. TEXAS TO 1850 (3-0) 3 hours credit. 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.

HIST 3364. TEXAS SINCE 1845 (3-0) 3 hours credit. The state of Texas since its annexation. Social development, political events, and the rise of industry and labor. Completion of either HIST 3363 or 3364 is recommended for those planning to teach history in Texas secondary schools.

HIST 3367. AMERICAN INDIAN HISTORY (3-0) 3 hours credit. 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. 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 3370. THE IMAGE OF THE AMERICAN WEST (3-0) 3 hours credit. 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) 3 hours credit. 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." Also listed as GEOG 3371; credit will be granted only once.

HIST 4365. HISTORY OF SPAIN AND PORTUGAL (3-0) 3 hours credit. 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) 3 hours credit. 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) 3 hours credit. 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) 3 hours credit. Mexican history from its pre-Colonial Indian heritage to the current scene. A social and economic analysis of the major events in Mexican history with emphasis on the Mexican Revolution for an understanding of the present situation in Mexico.

Spanish

SPAN 3312. SPANISH-AMERICAN CULTURE AND CIVILIZATION (3-0) 3 hours credit. The evolution of Spanish-American society and culture as a background for its contemporary problems. Prerequisite: SPAN 2314 with a grade of C or better, or a knowledge of the language and consent of the department.

SPAN 4313. TOPICS IN HISPANIC CULTURE (3-0) 3 hours credit. Among the topics are Spanish music, television, radio, film, and literature as culture. May be repeated for credit. Credit cannot be given for both SPAN 3304 and 4313.

SPAN 4317. CHICANO LITERATURE (3-0) 3 hours credit. Mexican-American literature, with special attention to its social, cultural, and linguistic background.

SPAN 4326. THE TWENTIETH CENTURY HISPANIC ESSAY (3-0) 3 hours credit. Major essayists and their contributions to the understanding of modern Hispanic problems. Includes the literary criticism of Ortega and Unamuno, and the Spanish-Americans Borges, Mallea, Paz, Alfonso Reyes, or others.

Political Science

POLS 3316. LATIN AMERICAN POLITICS (3-0) 3 hours credit. 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) 3 hours credit. Current economic and political systems of Mexico and relevant issues in U.S.-Mexico relations. Trade, immigration, economic dependency, energy, contraband, and other topics.

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 relations with other ethnic groups.

Theatre Arts

144 Fine Arts Bldg. • Box 19103 • 817-272-2650 • www.uta.edu/theatre

The mission of the Theatre Arts Program in the College of Liberal Arts at The University of Texas at Arlington is to provide students 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 Fine Arts (BFA) degree program for Theatre Arts students and to provide courses which meet the Fine Arts core curriculum requirements of the University.

The Bachelor of Fine Arts (B.F.A.) Degree Program

Liberal Arts Requirements

The Bachelor of Fine Arts degree is a specialized degree and provides a thorough background in the liberal arts. Students seeking the B.F.A. elect courses chosen from the University and Liberal Arts core curricula outside the Theatre Arts Program.

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 program:

- Participation in advisement/interview
- Upon acceptance, indication of area of specialization (performance or production/design).

Transfer students follow the same entrance procedures as freshmen and should realize that acceptance into the program is determined by the Theatre Arts faculty.

Candidates for the Bachelor of Fine Arts degree must satisfy the requirements for the University and the College of Liberal Arts.

All freshmen and incoming transfer B.F.A. students are required to complete THEA 1304.

All Theatre Arts majors shall enroll in a minimum of two hours and a maximum of eight hours (or one hour per semester in residence) of THEA 0181 (Practicum) to graduate. Students should see their advisor regarding practicum obligations.

All B.F.A. students who elect the performance option are required to audition for each major production each semester they are enrolled. Production activities and Theatre Arts disciplinary rules shall be governed by a student handbook, which is supplied to the student by Theatre Arts.

The Theatre Arts Program offers limited scholarships to deserving students. Work-study positions are also available. Contact Theatre Arts for information.

Requirements for a Bachelor of Fine Arts Degree in Theatre Arts

English

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

Mathematics

Six hours (level of college algebra 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. Performance

1303, 1304, 1307, 1343, 2306, 2309, 2352

Plus 36 upper-division hours including:

3300, 3304, 3315, 3340, 3341, 4300, 4301, 4302, 4303, 4304 and 4308.

B.F.A. Production/Design

1303, 1304, 1307, 1343, 2306, 2309, plus 42 upper-division hours including: 3300, 3301, 3304, 3305, 3307, 3315, 4302, 4303, 4304, 4305, 4306, and 4343.

Total

128 hours, of which at least 36 must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA), ROTC, or marching band as required.

Competence in Oral Presentations

Students should 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 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.

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 this competency. An examination or completion of a department or college-designated course may be required.

Teacher Certification

Students interested in Texas Teacher Certification should consult the School 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

Director

Associate Professor LaFontaine

Associate Professors

Chapa, Gaupp, Kongevick, Maher

Visiting Assistant Professor

Inman

Specialists

Dement, Simons

Theatre Arts (THEA)

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

0181. THEATRE PRACTICUM (0-4) 1 hour credit (DRAM 1120).

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.

1302. VOCAL FUNDAMENTALS (3-0) 3 hours credit (DRAM 2336). 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 accept-

able grammar and pronunciation in formal presentations. Credit for THEA 1302 will not be granted to B.F.A. students in the performance option.

1303. PERFORMANCE FUNDAMENTALS I: VOICE AND MOVEMENT (3-0) 3 hours credit. The use and training of the voice. 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 coordination of voice and body. Required of all Theatre Arts majors. Prerequisite: permission of faculty.

1304. STAGECRAFT I (2-4) 3 hours credit (DRAM 1330). Equipment, materials, methods, and procedures for the fabrication of scenery and properties for theatrical production. Service on crews in productions as required for one semester. Required of all theatre arts majors.

1307. ACTING I: FUNDAMENTALS (3-0) 3 hours credit (DRAM 1351). Study and exercise in fundamentals of the actor's craft. Emphasis on the development of basic acting techniques including: characterization, objectives, action and script analysis. Performance requirements may include improvisation, monologues, and scene study. Attendance at outside productions may be required.

1343. INTRODUCTION TO THEATRE (3-0) 3 hours credit (DRAM 1310). 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.

2306. THE CRAFT OF COSTUME (2-4) 3 hours credit. Introduction to the process and application of the fundamental skills of costuming and costume design preparation methods. Prerequisite: permission of faculty.

2309. SCRIPT ANALYSIS (3-0) 3 hours credit. An investigation of dramatic structure from the points of view of the director, actor and designer. Elements of dramatic theory are included.

2352. ACTING II: SCENE STUDY (2-4) 3 hours credit (DRAM 1352). Acting technique exercises to enhance and develop acting skills through scene study. Methods of characterization, research, and role preparation. Prerequisite: THEA 1307 and permission of faculty.

3300. DIRECTING I (2-4) 3 hours credit. The techniques of staging plays. Play interpretation, casting, rehearsal procedure, staging, and the role of the director in character analysis and creation. Prerequisites: THEA 1303, 1304, 1307, 1343, 2306, 2309, 2352, and permission of faculty.

3301. SCENE DESIGN I (3-0) 3 hours credit. 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, 1343, 2306, and permission of faculty.

3304. STAGECRAFT II (2-4) 3 hours credit. Paint and the effect of lighting on paint; basic principles of stage lighting. Prerequisites: THEA 1304, 1343, 2306, and permission of faculty.

3305. LIGHTING DESIGN I (2-4) 3 hours credit. 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, 1343, 2306, 2309, and permission of faculty.

3307. COSTUME HISTORY (3-0) 3 hours credit. Historical styles and trends of fashion to the present as applied to stage, television, and film. Prerequisites: THEA 1304, 1343, 2306, and permission of faculty.

3315. THEATRICAL MAKEUP (3-0) 3 hours credit. Types, styles, and techniques of make-up application for stage, television, and film. Prerequisite: permission of faculty.

3320. PLAYWRITING (3-0) 3 hours credit. The art and craft of constructing a play. Students write playlets, scenes, and one-act plays for in-house performance and/or instructor evaluation. Prerequisites: THEA 3300 or permission of the faculty.

3340. PERFORMANCE FUNDAMENTALS II: VOICE AND MOVEMENT FOR THE ACTOR (3-0) 3 hours credit. Further development of techniques covered in THEA 1303. Freeing the voice through exercises and experiences in relaxation, physical awareness, breath, resonance, and articulation. Focus on awareness and the release of habitual patterns that restrict the voice. Prerequisites: THEA 1303 and permission of the faculty.

3341. ACTING III: ADVANCED SCENE STUDY (2-4) 3 hours credit. Further development of techniques covered in THEA 1307 and 2352. Basic principles of character building. Emphasis on the development of a role through script, exercises, and character work. Prerequisites: THEA 1307, 2352, and permission of faculty.

3346. STAGE COMBAT (3-0) 3 hours credit. Basic skills in hand-to-hand stage combat. Slapping, punching, kicking, and falling techniques. Prerequisite: permission of faculty.

3373. SPECIAL TOPICS: WOMEN IN THE ARTS (3-0) 3 hours credit. An interdisciplinary course; includes art, music, dance, theatre, and literature. May vary in emphasis depending upon the instructor's field and theoretical perspective. May include works of women artists, the portrayal of women in the arts, the status of women in the arts, and feminist theory and criticism in the various disciplines. Cross listed as WOMS 3373; credit will be granted only once.

4300. DIRECTING II (2-4) 3 hours credit. Continuation of THEA 3300. Students will direct scenes and/or one-act plays. Prerequisites: THEA 3300 and permission of faculty.

4301. ACTING IV: STYLES AND PORTFOLIO (2-4) 3 hours credit. Selected acting styles exploring images, text, movement and development of the actor throughout history. The use of various acting techniques to condition the actor to meet the demands of classical literature. The development and presentation of an actor's portfolio in a recital context. Prerequisites: THEA 3341, and permission of faculty.

4302. STAGE MANAGEMENT AND THEATRE ADMINISTRATION (3-0) 3 hours credit. Managerial activities and responsibilities applicable to community or professional theatre. Prerequisite: permission of faculty.

4303. CLASSICAL THEATRE HISTORY (3-0) 3 hours credit. The development of world theatre from its beginnings through the Renaissance. Analysis of representative plays of each period with par-

ticular emphasis on drama in its historical context. History of acting, costuming, and directing. Prerequisites: THEA 1343, 2309, and permission of faculty.

4304. MODERN THEATRE HISTORY (3-0) 3 hours credit. 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. Prerequisites: THEA 1343, 2309, and permission of faculty.

4305. SCENE DESIGN II (3-0) 3 hours credit. Continuation of THEA 3301. Distinctions among stage, television, and film design, interaction of one with another, advanced methods, and application of scene design concepts. Prerequisites: THEA 3301 and permission of faculty.

4306. LIGHTING DESIGN II (3-0) 3 hours credit. Specialized topics and advanced design technique and application principles. Participation on light crews in departmental productions required. Prerequisites: THEA 3305 and permission of faculty.

4308. ACTING FOR THE CAMERA (2-4) 3 hours credit. An advanced acting course to acquire film and video performance technique. Prerequisites: THEA 1303, 1307, 1343, 2352 and permission of faculty.

4330. U.S. THEATRE HISTORY (3-0) 3 hours credit. 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. Prerequisites: THEA 1343, 2309, and permission of faculty.

4343. COSTUME DESIGN (2-4) 3 hours credit. Theory and practice of costume design and application of those principles to theatrical production. Prerequisites: THEA 2306 and permission of faculty.

4391. CONFERENCE COURSE (3-0) 3 hours credit. 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 faculty.

4393. SPECIAL TOPICS (3-0) 3 hours credit. 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 faculty.

4394. HONORS THESIS/SENIOR PROJECT (3-0) 3 hours credit. 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.

4395. INTERNSHIP (3-0) 3 hours credit. Individual research through working with a professional theatre organization. Individual conference to be arranged. Prerequisites: senior standing, permission of program director and instructor.

Women's Studies

223 University Hall • Box 19599 • 817-272-3131

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

Director

Professor Shelton

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.

WOMS 2307. WOMEN IN THE ANCIENT WORLD (3-0) 3 hours credit. 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. Will be of interest to anyone who wishes to understand the history, literature and art of the ancient Greco-Roman world (that is the foundation of Western Culture). No prerequisites.

WOMS 2310. INTRODUCTION TO WOMEN'S STUDIES (3-0) 3 hours credit. 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) 3 hours credit. Physiological, psychological, sociological aspects of human sexuality. Also listed as BIOL 2317, PSYC 2317, and HEED 2317. Credit will be granted for one only. Students seeking certification in Health must enroll in HEED 2317. Students seeking credit toward their science requirement must enroll in BIOL 2317. Cannot be counted for major credit toward a degree in biology or psychology.

WOMS 3305. WOMEN'S HEALTH ISSUES (3-0) 3 hours credit. Specific issues of importance to women and their health, including growth and development, nutrition, reproductive health, pregnancy,

chronic diseases and relationship/family issues. Also listed as HEED 3305; credit will be granted only once.

WOMS 3309. WOMEN AND WORK, 1600 TO THE PRESENT (3-0) 3 hours credit. 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. Also listed as HIST 3309; credit will be granted only once.

WOMS 3310. U.S. WOMEN'S HISTORY TO 1860 (3-0) 3 hours credit. 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. Also listed as HIST 3310; credit will be granted only once.

WOMS 3311. U.S. WOMEN'S HISTORY 1860 TO PRESENT (3-0) 3 hours credit. American women in politics, work and society since 1860, focusing on race and class and women's struggles for rights and liberation. Also listed as HIST 3311; credit will be granted only once.

WOMS 3322. FAMILY VIOLENCE (3-0) 3 hours credit. Examines domestic and intimate violence in the context of sociological/anthropological theories and research. Incidence, causes, and social responses to family violence are reviewed, as are crosscultural aspects of sex roles and domestic violence. Prerequisite: sophomore standing or permission of the instructor. Also listed as SOCI 3322; credit will not be given for both.

WOMS 3328. MARITAL AND SEXUAL LIFESTYLES (3-0) 3 hours credit. Contemporary American lifestyles selected from the following topics: singles, traditional marriage, homosexuals, single-parent families, open marriage, non-marital sexuality, cohabitation, dual-career marriage, childless couples, egalitarian marriage, families in later life. Also listed as SOCI 3328; credit will be granted only once.

WOMS 3331. SOCIOLOGY OF THE FAMILY (3-0) 3 hours credit. Examines the family in American society and in other cultures to better understand its past, present, and future role. 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. Also listed as SOCI 3331; credit will be not be granted for both.

WOMS 3334. GENDER ROLES (3-0) 3 hours credit. Theories of gender role socialization and change in female and male roles. Impact of biology, psychology, and socialization on gender role development. Emphasis on how we learn gender in various social contexts including the family, education, and the peer group. Also listed as SOCI 3334; credit will be granted only once.

WOMS 3356. WOMEN, WORK AND SOCIAL CHANGE (3-0) 3 hours credit. 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. Also listed as SOCI 3356; credit will be granted only once.

WOMS 3366. SEX, GENDER, AND CULTURE (3-0) 3 hours credit. 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. Also listed as ANTH 3366; credit will be granted only once.

WOMS 3370. WOMEN IN LITERATURE (3-0) 3 hours credit. Works by women writers and/or images of women in literature. May be repeated for credit as subject matter changes. Also listed as ENGL 3370; credit will not be granted for both.

WOMS 3373. WOMEN IN THE ARTS (3-0) 3 hours credit. An interdisciplinary course exploring historical and contemporary roles of women in the arts, including visual art, dance, literature, music and theatre. The works, portrayal, and status of women in the arts, as well as feminist theory and criticism. Also listed as ENGL 3373 and THEA 3373; credit will be granted in only one department.

WOMS 3380. ETHNIC AND GENDER ISSUES IN CRIMINAL JUSTICE (3-0) 3 hours credit. Ethnic and gender issues focusing on victims, offenders, and professionals in the criminal justice system. Also listed as CRCJ 3800; credit will be granted only once.

WOMS 4190, 4290, 4390. CONFERENCE COURSE IN WOMEN'S STUDIES (variable credit from 1 to 3 hours as arranged). 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. Prerequisite: permission of the instructor.

WOMS 4301. ART AND GENDER (3-0) 3 hours credit. Approaches to the integration of art from the stance of gender and feminism. Emphasis is placed on the work of significant female artists and on gendered representation of art in general, both male and female. Also listed as ART 4301; credit will be granted only once.

WOMS 4303. WOMEN IN SOCIETY (3-0) 3 hours credit. Women's status in contemporary American society, including the family, workplace, and politics. Women's status examined in historical and crosscultural perspectives. Also listed as SOCI 4303; credit will be granted only once.

WOMS 4316. WOMEN IN THE POLITICAL PROCESS (3-0) 3 hours credit. 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. Also listed as POLS 4316; credit will be granted only once.

WOMS 4318. LANGUAGE AND GENDER (3-0) 3 hours credit (Also taught as HUMA 5392). The role of language in the expression and creation of gender identities. Gender differences in language structure and use, men's and women's language in other cultures, the acquisition of gendered ways of speaking, and sexism in language. Also listed as LING 4318. Formerly offered as WOMS 4392/LING 4392; credit will be granted only once.

WOMS 4323. FEMINIST POLITICAL THOUGHT (3-0) 3 hours credit. 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. Also listed as POLS 4323; credit will be granted only once.

WOMS 4327. WOMEN IN HISPANIC LITERATURE (3-0) 3 hours credit. 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 will not be given for both.

WOMS 4340. LITERATURE BY WOMEN (3-0) 3 hours credit. 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. Also listed as ENGL 4340; credit will be granted only once.

WOMS 4392. SPECIAL TOPICS IN WOMEN'S STUDIES (3-0) 3 hours credit. Special topics of interest in the discipline of Women's Studies. May be repeated for credit when the topic changes.

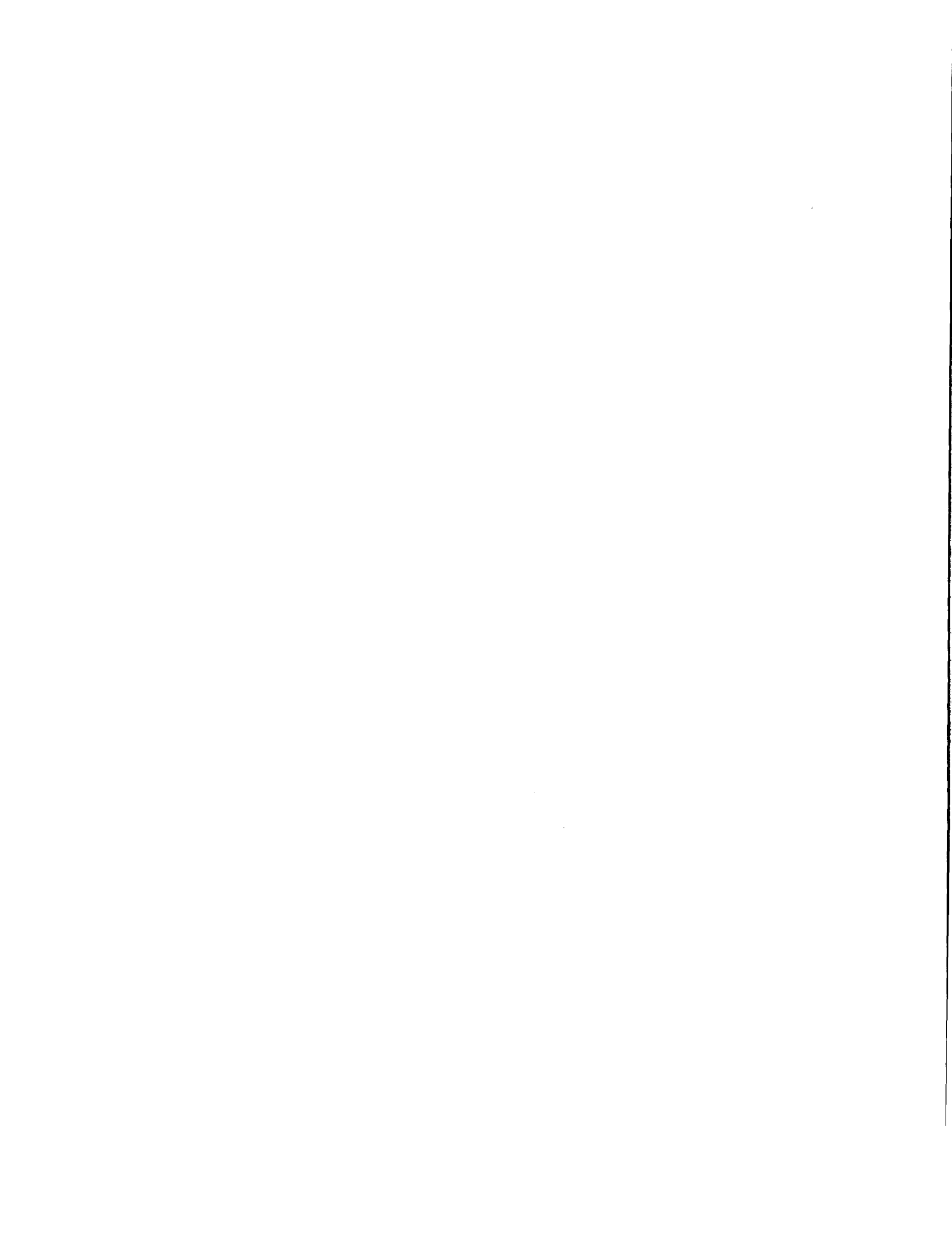
WOMS 4393. GENDER, SPACE, AND PLANNING (3-0) 3 hours credit. Considers both theoretical and professional issues. Topics include: the expression and reinforcement of gender roles in and through urban spatial organization; critiques of rational technical planning; contributions of women to the urban planning profession; threats and opportunities facing women planners today. Also listed as CIRP 4393; credit will be granted only once.

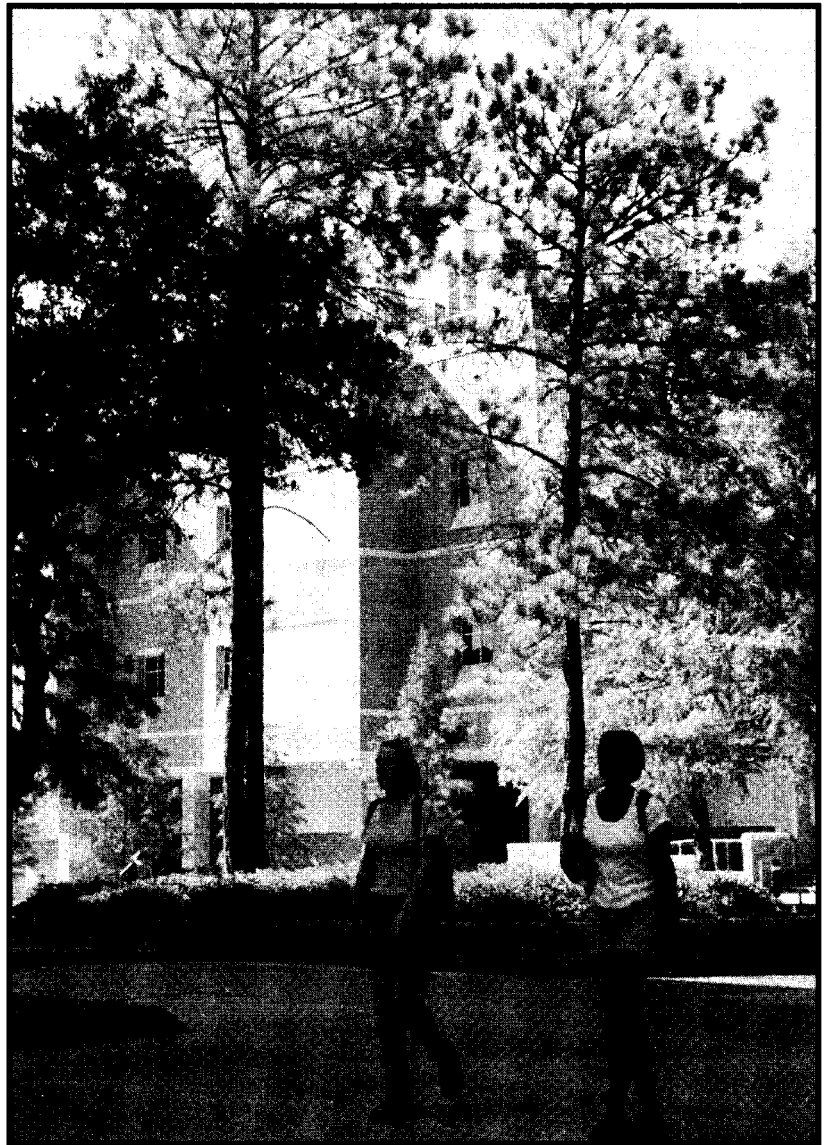
WOMS 4395. WOMEN'S STUDIES INTERNSHIP (3-0) 3 hours credit. Employment (paid or unpaid) supervised by Women's Studies Program Director, with the student performing duties related to the academic curriculum of women's studies. Students are required to submit an approved academic project related to the work performed. May not be repeated. Prerequisite: permission of the Program Director.

PSYC 3313. PSYCHOLOGY OF WOMEN (3-0) 3 hours credit. The roles, abilities, and personality characteristics of women in our society and how they change with age. Emphasis is on the empirically-measured traits and conditions which are associated with women and which might contribute to change in those characteristics. Both normal and abnormal characteristics are considered. This course is of interest to both men and women. Formerly PSYC 3302. Prerequisite: PSYC 1315.

SOCW 3317. SOCIAL WORK WITH WOMEN AND MINORITIES (3-0) 3 hours credit. Using history of women and selected minorities in the U.S. to facilitate understanding and development of social work practice skills. Prerequisite: junior standing or permission of the instructor.

Special topics courses may also be used to fulfill the Women's Studies minor with the permission of the Women's Studies program director.





The School of Nursing

The School of Nursing

Dean: Elizabeth Poster, Ph.D.
669 Pickard Hall • Box 19407 • 817-272-2776 • www.uta.edu/nursing

Philosophy

The School of Nursing, an integral component of The University of Texas at Arlington, seeks to assure health care of the highest quality for the people of Texas. The faculty believe in the promotion and support of excellence in professional nursing through teaching, scholarly endeavors and community service. Through its undergraduate, graduate and continuing education programs, the School of Nursing is committed to preparing and developing individuals for professional nursing roles and for collaboration with other professionals and consumers in the delivery of health care.

Learning, a continuous lifelong process, is a personal responsibility. The faculty believes students must be actively involved in the learning process to acquire clinical proficiency and to be socialized into professional roles. In nursing education, learning experiences are planned to achieve sequence, continuity, and synthesis of knowledge and skills as defined by the educational objectives. The teaching and learning processes involve the teacher and learner in setting goals, selecting learning experiences, evaluating progress, and revising instructional methods and curriculum as appropriate. The educational process facilitates the development of each person's potential and reflects democratic values and ethical principles.

Faculty and students share the responsibility for creating an educational climate which fosters mutual respect, integrity, intellectual inquiry, critical thinking, creativity and effective communication. Faculty and students together contribute to the knowledge base of the profession through their scholarly endeavors, including the application of nursing science, conduct of research, and the dissemination of knowledge through presentations and publications. Faculty and students provide service to the University and the community, promoting health through their involvement and leadership.

Undergraduate nursing education is based upon studies in the arts, sciences and humanities, and provides a foundation for continuing personal, professional and educational development. 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.

Graduate nursing education builds on a foundation of undergraduate nursing education and provides an opportunity for professional nurses to continue developing a specialty practice that is congruent with an expanding theoretical and empirical knowledge base. The graduate program in nursing is designed to assist professional nurses to prepare for advanced clinical and functional roles that require increased accountability, expertise and leadership. The master's program facilitates the use of the research process through the course of study and prepares the graduate to be a critical thinker and a self-directed professional who collaborates with consumers and other health care providers.

The faculty believes that doctoral education is essential to develop and advance an empirical knowledge base for nursing as a discipline. The doctorate provides a basis for future research programs and other scholarly activities.

Continuing education in nursing is based upon the premise that maintaining competency in nursing practice is the responsibility of

each professional nurse. The faculty believes it is the responsibility of the School of Nursing to be sensitive to the influences inherent in a changing society and to respond to the continuing educational needs of professional nurses in Texas.

Based on a holistic perspective, the curricula of the School of Nursing educational programs encompass the major concepts of person, health, environment, and nursing. The person is defined as an individual, a family, an aggregate, a community, or a society, each having relationships with and responsibilities to the others. The person has unique environmental, physiological, psychosocial-cultural, philosophical, developmental and spiritual dimensions and possesses inherent dignity and worth. The person's unique, complex needs are communicated through a variety of behaviors across the lifespan.

Health is a dynamic state and implies a continuous response by the person to stimuli from the environment. Health encompasses many processes: promoting and maintaining health, preventing illness, recovering from illness, and dying with dignity. Nurses are accountable for assisting persons toward health. Each person has the right to health care provided through a collaborative process, resulting in informed health decisions and shared accountability for outcomes.

The environment consists of physiological, psychosocial-cultural, philosophical, developmental and spiritual conditions and forces impacting the person's health. Environmental conditions and forces continually change and interact, forming a complex context for nursing practice. The nurse has the responsibility to assess the environment at the level impacting the person, manage its constraints and utilize its resources to promote the health of the person.

Nursing is enacted by applying the nursing process within the roles of clinician, teacher, manager and researcher. The professional nurse functions in diverse practice settings with persons of various cultures. Within the context of a caring interpersonal relationship and guided by ethical, legal and professional standards, the nurse uses critical thinking to apply evidence-based knowledge and skills in the management of nursing care. As an essential part of the health care delivery system, nursing is a socially determined profession whose practice evolves in response to the needs of persons. These needs provide direction for future roles of professional nursing practice.

Undergraduate Objectives

The purpose of this program is to prepare a graduate for practice as a professional nurse in diverse settings. The focus is on the application of knowledge of nursing art and science; implementation of nursing roles within professional, ethical and legal standards; demonstration of responsibility for continued personal and professional growth; and action based on knowledge of current and emerging health and social issues.

Objectives

- Synthesize theoretical and empirical knowledge from nursing, the sciences and the humanities in the practice of professional nursing.
- Demonstrate critical thinking in professional nursing practice.

- Use therapeutic nursing interventions to assist persons to achieve their maximum health potential.
- Use effective communication and interpersonal skills in professional nursing practice.
- Use nursing roles and nursing process interactively to provide care in diverse settings.
- Integrate professional values, ethics and standards in the practice of nursing.
- Provide culturally competent and developmentally appropriate nursing care.
- Apply research findings appropriately in nursing practice.
- Coordinate resources within and between agencies and disciplines to promote effective and efficient health care delivery.
- Analyze the impact of health policy on access to and delivery of health care.
- Assume responsibility for personal and professional development.
- Accept accountability for one's own nursing practice.

Admission Criteria

Pre-Nursing

Students may be admitted or may transfer to U.T. Arlington upon meeting the admission or transfer requirements established by the University. Students who designate themselves as pre-nursing will be advised by the School of Nursing in the Undergraduate Student Services Office.

BSN

Students desiring admission to the sequence of nursing courses leading to the degree of Bachelor of Science in Nursing must:

1. Complete 60 hours of prerequisites with a minimum GPA of 2.5.
2. Scores on the Nurse Entrance Test (NET) must be on file in the School of Nursing.

As enrollment in the BSN program is limited by the available resources, the most qualified applicants will be invited to interview with nursing faculty and to submit a writing sample. Students who have a previous baccalaureate degree and credit hours at U.T. Arlington will be given additional consideration.

RN to BSN

The RN to BSN program has been developed for registered nurses who wish to earn a baccalaureate degree in nursing. Curricular content is designed to assist the student in socialization to the professional nursing role. Classroom activities, independent learning and individualized clinical experiences are planned to assist the student to achieve the terminal program objectives for the undergraduate program. Registered nurses desiring admission to this program must:

1. Complete 60 hours of prerequisites with a minimum GPA of 2.5.
2. Scores on the Nurse Entrance Test (NET) must be on file in the School of Nursing.

Credit by RN Licensure

Twenty-eight (28) semester hours will be awarded toward the Bachelor of Science in Nursing degree for individuals who have a license to practice in Texas as a Registered Nurse and who have completed 12 credit hours in the School of Nursing's RN to BSN Program.

Immunizations

State law or regulation requires persons applying for admission to

be immunized or provide titer reflecting immunization against the following: polio, tetanus/diphtheria, measles and mumps (if born after January 1, 1957), rubella, hepatitis B and chicken pox. The TB test is required by the School of Nursing.

Certification-Cardiopulmonary Resuscitation

Evidence of successful completion of an approved course is required upon admission and must be maintained throughout the program.

Professional Liability Insurance

Nursing students enrolling in the nursing courses 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.

Health History and Physical Examination

Nursing students must complete a health history and physical examination (reported on a form supplied by the School of Nursing) prior to enrollment.

Drug Screen and DPS Criminal Background Checks

Nursing students must complete a drug screen and DPS Criminal Background check prior to the School of Nursing orientation.

Transfer

Students desiring transfer credit for nursing courses must submit requested information about the courses and may be asked to take selected written examinations for acceptance of credits and placement in the nursing program. Only upper-division nursing courses completed within the past five years with a grade of C or better will be considered for transfer credit. Further information about the transfer procedure may be obtained from the Undergraduate Student Services Office, School of Nursing. Processing of the transfer procedure will not be initiated until the student has met the requirements for admission to the professional nursing program. (See Admission.)

Eligibility to Write the National Council Licensure Examination for Registered Nurses (NCLEX RN)—Declaratory Orders

The Board of Nurse Examiners (BNE) for the state of Texas has set out guidelines and criteria on the eligibility of persons with criminal convictions to obtain a license as a registered nurse. The BNE 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 been convicted of a felony, a misdemeanor involving moral turpitude, or engaged in conduct resulting in the revocation of probation imposed pursuant to such conviction.

The Board of Nurse Examiners for the State of Texas has set out the guidelines and criteria on the eligibility of persons with mental illness and/or chemical dependency to obtain a license as a registered nurse. The BNE 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 with lack of fitness to practice by reason of mental illness or intemperate use of alcohol or drugs that could result in injury to patients or the public.

(Detailed information is available from the Board of Nurse Examiners for the State of Texas (www.bne.state.tx.us) or the School of Nursing Dean's Office.)

Requirements for the Bachelor of Science Degree in Nursing

The nursing program, accredited by the National League for Nursing* and the Board of Nurse Examiners for the State of Texas, consists of two academic years (or four semesters) of lower-division courses taken in an approved college or university followed by two academic years (or four semesters) of upper-division nursing courses which are taken in The University of Texas at Arlington School of Nursing. Upon successful completion of the program, the student is awarded the Bachelor of Science Degree in Nursing and is eligible to take the National Council Licensure Examination for licensure as a registered nurse. Full-time students who have completed an accredited Associate Degree or Diploma Nursing Program and are enrolled in the RN to BSN program may complete the upper-division courses in two semesters.

* National League for Nursing, 61 Broadway, New York, NY, 10006. PH: (212) 363-5555.

Lower-Division Courses

The following 60 hours must be completed prior to enrollment in upper-division courses in nursing:

	Hours
Natural Sciences	
Human Anatomy and Physiology	4 ^{1,5,7}
Microbiology or Bacteriology	4 ⁶
Chemistry	4 ^{2,6}
Electives	<u>3</u>
	15 ³
Behavioral Sciences	
Introduction to Psychology	3 ⁷
Sociology	3 ⁶
Human Growth and Development Across the Lifespan	3 ⁷
	<u>9</u>
American History I and II	6 ⁶
Political Science I and II (U.S. and Texas State)	<u>6⁶</u>
	12 ⁴
Other	
Fine Arts (architecture, art, dance, music or theatre arts)	3 ⁶
College Algebra	3 ⁶
Statistics	3 ⁶
English Composition I and II	6 ⁶
Sophomore English	3 ⁶
Computer Science or substitute (speech, sophomore English or technical writing)	3 ⁶
Nutrition	<u>3⁷</u>
	24
TOTAL (Lower-Division)	60 hours

plus exercise and sport activities (EXSA/DNCA)
or ROTC or marching band as required

¹ If part of a two-semester sequence, both courses are required.

² Must contain a lab component.

³ No fewer than six hours must be in courses which contain laboratory experience.

⁴ 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.

⁵ Credit will not be granted for courses taken more than five years ago. Currently practicing RN to BSN students may request a waiver.

⁶ Degree Plan Core Curriculum courses.

⁷ Degree Plan Program Specific courses.

The program outlined here will satisfy the lower-division requirements toward a baccalaureate degree program at The University of Texas at Arlington.

Suggested Course Sequence

Freshman Year

First Semester: ENGL 1301; BIOL 1441; HIST 1311; MATH 1302; PSYC 1315; EXSA—Total Credit 17 hours.

Second Semester: ENGL 1302; CHEM 1451; HIST 1312; BIOL 2457; SOCI 1311; EXSA—Total Credit 18 hours.

Sophomore Year

First Semester: Sophomore English, 3 hours; POLS 2311; BIOL 2458; MATH 1308; Fine Arts, 3 hours; EXSA—Total Credit 17 hours.

Second Semester: Sophomore English or substitute, 3 hours; POLS 2312; BIOL 3444; PSYC 3310; BIOL 1301; EXSA—Total Credit 17 hours.

The nursing major begins in the junior year after completion of the 60 hours of basic liberal arts courses providing a foundation for understanding the holistic person's response to the health processes.

Upper-Division Major

BSN

Junior Year

Semester I:* NURS 3240, 3320, 3365, 3366, 3532—Total Credit 16 hours.

Semester II: * NURS 3421, 3561, 3681—Total Credit 15 hours.

Senior Year

Semester I:* NURS 4321, 4361, 4531, 4541—Total Credit 16 hours.

Semester II:* NURS 4223, 4451, 4462, 4581—Total Credit 15 hours.

* Satisfactory completion (C) of prerequisite courses is required prior to enrolling in courses in subsequent semesters.

RN to BSN

Semester I:* NURS 3222, 3320, 3334, 3335, 3341, 3342—Total Credit 17 hours.

Semester II:* NURS 4321, 4324, 4381, 4451, 4463—Total Credit 17 hours.

Credit by RN Licensure: NURS 3360, 3365, 3431, 3831, 4561, 4571—Total Credit 28 hours.

Total Required Nursing Hours in both BSN and RN to BSN programs: 62 hours

Upper-Division Electives: 6 hours

Total (for degree): 128 hours**

* Satisfactory completion (C) of prerequisite courses is required prior to enrolling in courses in subsequent semesters.

** Plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Clinical Courses

To pass a clinical course, the student must pass both the theory and the clinical components of that course.

Progression

Students will not be permitted to continue in the nursing program nor to enroll for additional nursing 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.

The University grade replacement policy is limited by the School of Nursing and not applicable to nursing courses.

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. They must complete the Nursing degree requirements and the requirements of the Honors College. Contact School of Nursing Honors Coordinator for further information.

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.

Computer Proficiency Requirement

The School of Nursing recognizes the value of computer skills in our technologically advanced society. In order to verify that students graduate with experience in word processing, spreadsheet and database use, E-mail communication, Internet access, and computer library search, appropriate assignments will be made throughout the nursing program. Each student will be provided an e-mail address. Contact Undergraduate Program Directors for more information.

School of Nursing Faculty

Dean

Professor Poster

Professors

Bond, Burns, Cason, Grove, Jones

Associate Professors

Courtney, Gibson, Hegstad,

Heusinkveld, O'Quinn, Schmelzer

Assistant Professors

C. Anderson, Duggleby, Gray, Raudonis

Specialists

Adams, Aguilar, Althaus, C.M. Anderson, M. Anderson, Baker, Barr, Carlson, Chappell, Cline, Cochran, Cravener, Duncan, Fox, Gillman, Given, Goller, Green, Hadnot, Handy, Hennes, Hicks, Hildebrand, Hill, Hudgins, Hargrove-Huttell, Jackman, Jewell, Judkins, Kardong-Edgren, Kopplin, Kyba, Leipheimer, Lieser, Marks, McClean, Miles, Miller, Monastesse, Palmer, Parker, N. Patrick, V. Patrick, Pensabene, Perley, Pinkerton, Priddy, Rickard, Royes, Runzheimer, Schira, Singer, Smith, Snow, Stam, Stephens, Sullivan, Tamasy, Turpin, Weber, Willson, Wright

Nursing (NURS)

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.

3100. COOPERATIVE NURSING WORK EXPERIENCE (1-0)

1 hour credit. 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.

3200. COOPERATIVE NURSING WORK EXPERIENCE (2-0)

2 hours credit. 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.

3222. GERONTOLOGICAL NURSING (2-0) 2 hours credit.

Introduction to gerontologic nursing principles and standards. Selected concepts and issues related to aging and its impact on society and health care. Registered Nurse students only. *

3240. CONCEPTS OF PROFESSIONAL NURSING (2-0) 2 hours credit.

Selected concepts and processes for professional nursing. Introduction to nursing's theoretical, philosophical, ethical and legal dimensions. Socialization into nursing roles.

3320. HOLISTIC HEALTH ASSESSMENT (2-3) 3 hours credit.

Theory and practice of holistic health assessment of individuals and families across the life span with emphasis on normal findings. Prerequisite or concurrent enrollment: NURS 3240. Concurrent enrollment: NURS 3365, 3366, 3532, or Registered Nurse students. *

3334. INTRODUCTION TO POPULATION-FOCUSED NURSING PRACTICE (2-3) 3 hours credit.

Concepts and processes of public health science and community health nursing. The nursing process is applied for individuals, family, and population-focused care. Registered Nurse students only. Prerequisite or concurrent: NURS 3320. *

3335. HEALTH PROMOTION ACROSS THE LIFE SPAN (3-0)

3 hours credit. Health and health promotion for individuals, families, and communities. The nurse's role in health promotion. Registered Nurse students only. Prerequisites or concurrent enrollment: NURS 3242, 3320, 3341. *

3341. THEORIES IN PROFESSIONAL NURSING (3-0) 3 hours credit.

Theories from nursing science, social sciences, and humanities for application in the practice of professional nursing. Registered Nurse students only. Prerequisite or concurrent enrollment: NURS 3242. *

3342. CONCEPTUAL FOUNDATIONS FOR PROFESSIONAL NURSING (3-0) 3 hours credit.

Introduction to foundational concepts for professional nursing practice. Essential values, behaviors, and processes required for implementing professional nursing roles. Registered Nurse students only. Prerequisites: All lower division courses. *

3360. PATHOPHYSIOLOGIC AND PSYCHOPATHOLOGIC PROCESSES IN THE PERSON (3-0) 3 hours credit. Focus is on providing a knowledge base of pathophysiologic and psychopathologic processes which affect health status. Integration of structural, functional, and regulatory processes and their effects on health of the individual. Registered Nurse students only.

3365. PHARMACOLOGY IN NURSING PRACTICE (3-0) 3 hours credit. 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 or concurrent enrollment: NURS 3240. Concurrent enrollment: NURS 3320, 3366, and 3532.

3366. PATHOPHYSIOLOGIC PROCESSES: IMPLICATIONS FOR NURSING (3-0) 3 hours credit. Pathophysiologic alterations, their interactions, and effects on persons across the life span as a basis for therapeutic nursing interventions. Concurrent enrollment: NURS 3320, 3365, and 3532. Prerequisite or concurrent enrollment: NURS 3240.

3421. HEALTH PROMOTION AND ILLNESS PREVENTION ACROSS THE LIFE SPAN (3-3) 4 hours credit. 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. Prerequisites: NURS 3240, 3320, 3365, 3366, and 3532.

3431. PROFESSIONAL NURSING SEMINAR I (4-0) 4 hours credit. Theories and concepts for professional nursing practice. Focus on primary and secondary prevention throughout the life span and in providing professional nursing care in diverse settings. Registered Nurse students only.

3532. CLINICAL NURSING FOUNDATIONS (2-9) 5 hours credit. 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. Prerequisites or concurrent enrollment: NURS 3240, 3320, 3365, and 3366.

3561. NURSING OF ADULTS (3-6) 5 hours credit. 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. Prerequisites: NURS 3240, 3320, 3365, 3366, and 3532.

3681. PSYCHIATRIC MENTAL HEALTH NURSING OF INDIVIDUALS, FAMILIES, AND GROUPS (4-6) 6 hours credit. 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. Prerequisites: NURS 3240, 3320, 3365, 3366, 3532.

3831. PROFESSIONAL NURSING PRACTICUM AND SEMINAR II (1-21) 8 hours credit. Clinical application of theories and concepts for professional nursing practice. Primary and secondary prevention throughout the life span; focus on professional nursing care in diverse settings. Registered Nurse students only.

4100. COOPERATIVE NURSING WORK EXPERIENCE (1-0) 1 hour credit. 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.

4200. COOPERATIVE NURSING WORK EXPERIENCE (2-0) 2 hours credit. 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.

4223. PROFESSIONAL NURSING TRENDS (2-0) 2 hours credit. 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. Prerequisites: NURS 4321, 4361, 4531, and 4541.

4321. NURSING RESEARCH (3-0) 3 hours credit. Basic concepts, processes and applications of nursing research. Research role of the nurse in decision making and clinical practice. Prerequisites: NURS 3421, 3561, 3681 or Registered Nurse students who have completed all junior level courses.* Prerequisite for those taking the course online: Computer Technology Skills CE course or permission of the instructor.

4324. PROFESSIONAL NURSING (3-0) 3 hours credit. Ethical, legal, legislative, and political processes that have impact upon the practice of professional nursing in contemporary health care. Identifying strategies for personal and professional empowerment. Registered Nurse students only. Prerequisites: All junior level courses.*

4361. NURSING OF OLDER ADULTS (2-3) 3 hours credit. 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. Prerequisites: NURS 3421, 3561, 3681.

4381. PROFESSIONAL NURSING SEMINAR V: SYNTHESIS OF PRACTICE (3-0) 3 hours credit. 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. Registered Nurse students only. Prerequisites: All junior level courses.*

4451. NURSING LEADERSHIP AND MANAGEMENT (2-6) 4 hours credit. 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 4321, 4361, 4531, 4541 or Registered Nurse students who have completed all junior level courses.*

4462. COMMUNITY HEALTH NURSING (2-6) 4 hours credit. Integrate knowledge from nursing theory and public health science in assessing health care needs of aggregates, communities and society. Prerequisites: NURS 4321, 4361, 4531, 4541.

4463. ADVANCED CONCEPTS OF POPULATION-FOCUSED PRACTICE (2-6) 4 hours credit. Exploration of population-focused settings for community health nursing practice. Application of models and methods of community health, health planning, epidemiology, and research. Registered Nurse students only. Prerequisites: All junior level courses.*

4531. NURSING OF CHILDREN AND ADOLESCENTS (3-6) 5 hours credit. Nursing care for infants, children, adolescents, and their families. Theory and clinical application in diverse settings. Prerequisites: NURS 3421, 3561, 3681.

4541. NURSING OF THE CHILDBEARING FAMILY (3-6) 5 hours credit. 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. Prerequisites: NURS 3421, 3561, 3681.

4561. PROFESSIONAL NURSING PRACTICUM AND SEMINAR III (1-12) 5 hours credit. Clinical application of theories and concepts for professional nursing practice. Secondary and tertiary prevention throughout the life span; focus on professional nursing care in diverse settings. Registered Nurse students only.

4571. PROFESSIONAL NURSING PRACTICUM AND SEMINAR IV (1-12) 5 hours credit. Clinical application of theories and concepts for professional nursing practice. Secondary and tertiary prevention throughout the life span; focus on professional nursing care in diverse settings. Registered Nurse students only.

4581. NURSING OF ADULTS WITH COMPLEX NEEDS (3-6) 5 hours credit. 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. Prerequisites: NURS 4321, 4361, 4531, and 4541.

The following electives may or may not be taught every semester.

3350. ELECTRONIC INFORMATION RETRIEVAL IN HEALTH CARE (3-0) 3 hours credit. Experience in the use of electronic information tools to access and manage health care information in an electronic format.

3351. ADVANCED NURSING: NATURAL FAMILY PLANNING (2-3) 3 hours credit. Investigation of natural family planning, strategies, and the application of these methods to various reproductive states. Development of a knowledge base for patient teaching and practice in natural family planning education. Prerequisite: BIOL 2458 or consent of instructor.

3352. THE LEGACY OF THE FAMILY (3-0) 3 hours credit. 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 CE course or permission of instructor.

3353. NURSING ASSESSMENT AND INTERVENTIONS FOR THE VIOLENT FAMILY (3-0) 3 hours credit. 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.

3354. NURSING COMMUNICATION WITH SPANISH SPEAKING CLIENTS (3-0) 3 hours credit. Identification, discussion and practice of communication strategies specific to Spanish speaking clients. Focus on vocabulary specific to assessment and intervention with persons whose primary language is Spanish. Prerequisite: Admission to the nursing program or consent of instructor.

3355. HEALTH CARE SYSTEMS (3-0) 3 hours credit. 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 CE course for distance learning, or permission of instructor.

3356. NURSING CARE AT THE END OF LIFE (3-0) 3 hours credit. 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. Prerequisites: BSN students must complete all required Junior II courses. RNs enrolled in RN to BSN program.

3357. GENETICS AND NURSING (3-0) 3 hours credit. 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.

3361. HOLISTIC NURSING/ALTERNATIVE THERAPIES (3-0) 3 hours credit. Students will explore aspects of holistic health care, the psychophysiology of body/mind healing, lifestyle behaviors and select alternative therapies of care. Prerequisites: NURS 3421, 3561, 3681, or Registered Nurse students.

3362. SPIRITUAL CARE IN NURSING (3-0) 3 hours credit. Students will explore the aspects of spiritual care including the meaning of spirituality, assessment of spiritual well-being, diagnosis of spiritual needs, delivery of spiritual care, and evaluation of intervention effectiveness. Transcultural views of spirituality will be discussed along with ethical implications of spiritual care in nursing. Prerequisites: NURS 3240, 3320, 3365, 3366, 3532 or Registered Nurse students.

3363. ETHICAL ISSUES IN CONTEMPORARY HEALTH CARE (3-0) 3 hours credit. 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. Prerequisites: NURS 3421, 3561, 3681, or Registered Nurse students.

3637, 3537, 3437, 3337, 3237, 3137. INDEPENDENT STUDY (Variable credit from 1 to 6 semester hours as arranged). Topic and mode of study are agreed upon by the student and instructor. May be repeated with various topics.

3647, 3547, 3447, 3347, 3247, 3147. SPECIALIZED TOPICS IN NURSING (Variable credit from 1 to 6 semester hours as arranged). Areas of special interest. May be repeated with varied topics. Prerequisites: junior standing or consent of instructor.

3652. OPERATING ROOM - CONTINUOUS CARE EXPERIENCE (3-9) 6 hours credit. Clinical experience with patients who require surgical intervention. Focus on the complete cycle of care: preoperative teaching, an intraoperative segment, and postoperative care. Prerequisites: NURS 3366 and 3561 or consent of instructor.

3653. EMERGENCY NURSING (3-9) 6 hours credit. The application of the nursing process to the care of patients experiencing medical or surgical emergencies, or traumatic injuries. In-depth study of nursing problems related to selected emergency situations. Prerequisites: NURS 3421, 3561, and 3681 or consent of instructor.

4351. THERAPEUTIC COMMUNICATION FOR HEALTH CARE PROFESSIONALS (3-0) 3 hours credit. Identification, discussion, and practice of specific communication techniques to aid health care professionals in confronting and dealing effectively with conflict.

4352. DEVELOPING PROBLEM SOLVING AND PROGRAM DEVELOPMENT SKILLS IN HEALTH CARE DELIVERY (3-0) 3 hours credit. Identification of client problems, making referrals, and the development of programs with the client to resolve identified problems.

4381. PROFESSIONAL NURSING SEMINAR V: SYNTHESIS OF PRACTICE (3-0) 3 hours credit. Synthesis of theories and concepts for professional nursing practice. Examine emerging health care and societal issues affecting professional nursing roles. Future directions for enhancing the quality of nursing care. Registered Nurse students only. Prerequisites: All junior level courses. *

4386. HEALTH CARE LAW (3-0) 3 hours credit. Health care law as it affects professionals, institutions, and entities that deliver and finance health care. Prerequisites: NURS 3421, 3561, and 3681, or Registered Nurse students.

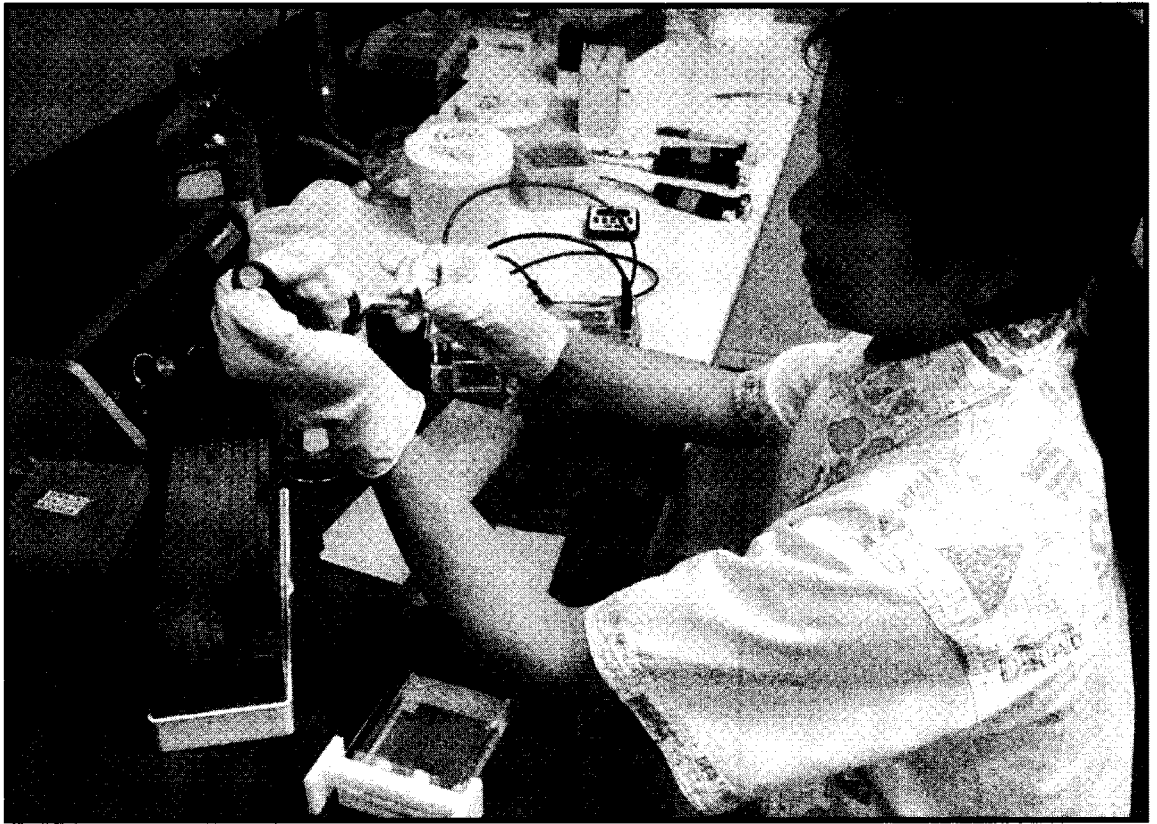
4641. ADVANCED NURSING OF THE CHILDBEARING FAMILY (4-6) 6 hours credit. Focus on the skills, issues and care required for high risk antepartum, intrapartum and postpartum childbearing families. Theoretical and clinical components with emphasis on development of clinical and critical thinking skills. Prerequisite: NURS 4541.

4652. CLINICAL EXTERNSHIP (2-12) 6 hours credit. Expansion of nursing knowledge and skills; application of the nursing process concepts. Prerequisites: NURS 3421, 3561, and 3681.

4654. ADVANCED NURSING: PEDIATRIC INTENSIVE CARE (3-9) 6 hours credit. Practice of nursing in the pediatric and neonatal intensive care units. Nursing care using the nursing process needed by critically ill pediatric patients who require life support and monitoring systems. Prerequisites: NURS 4541, 4531, 4361, and 4321, or consent of instructor.

4655. CULTURAL VARIATION IN HEALTH CARE: COMPARATIVE ANALYSIS OF TWO CULTURES (6-0) 6 hours credit. 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. Prerequisites: Completion of Junior I required nursing courses or consent of instructor.

* Courses with an asterisk require a \$20 Distance Education Fee for students at any of the distance education campuses in the RN to BSN Program.



The College of Science

The College of Science

Dean: Neal Smatresk, Ph.D.

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The pursuit of knowledge through scientific study has been the cornerstone of human accomplishment throughout recorded history. The College of Science continues this tradition by providing undergraduate students with the curricula that allows exploration and mastery of both the basic concepts and most recent developments of modern science and preparation for professional scientific careers. The College of Science consists of the departments of Biology, Chemistry and Biochemistry, Geology, 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 Science degrees are offered in all departments and Bachelor of Arts degrees in most of them. 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 graduate study or entry into technological careers in industry, medicine, government, business, or commerce. A wide range of degree options within the B.S. programs provide students with the career-oriented course work backgrounds required to pursue professional career paths in specific scientific fields. All departments within the college provide highly accessible student academic and career advising that allow customization of degree plans to meet a student's specific career goals.

The College of Science places a priority on fostering 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. All departments in the college 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, 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. Most departments 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 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 five-year Bachelor of Science (B.S.)/Master of Business Administration (M.B.A.) degree programs in Health Care and Biomedical Sciences Management and a five-year B.S./Master of Biomedical Engineering (M.B.E.) degree program. For students interested in a medical or dental degree, the college offers seven-year programs leading to a

B.S. degree combined with a Doctor of Medicine (M.D.), Doctor of Dental Surgery (D.D.S.), or Doctor of Osteopathy (D.O.) degree. Further details of these combined degree programs can be found in the College of Science section of this catalog.

The College of Science takes pride in offering students outstanding degree programs in all its departments and is marked by excellent teaching, broad undergraduate research opportunities and superior academic and career advising. These programs make graduates highly competitive in the job market or when applying to nationally recognized graduate programs. 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 marvels of the 21st century will spring from science just as did those of the 20th century. The crowning achievements of the past century are numerous. The human genome project, miracle drugs, efficient fuels, arrays of synthetic materials, the transistor, the laser, nuclear power, solar energy, the computer, the electron microscope, and sophisticated techniques for locating mineral deposits are merely a few examples. Discoveries of similar magnitude will be made this next century as scientists bring their talents to bear on modern society's pressing problems such as energy, environmental protection, and improved health care.

Requirements for Admission to the College of Science

Admission to The University of Texas at Arlington does not admit the student to any specific degree program. Students admitted to the University who wish to pursue a major in one of the science programs must apply to the appropriate academic unit for acceptance. Students should familiarize themselves with the general requirements for acceptance to the program of their choice as well as the specific requirements and the details of academic probation policies which may differ among science programs.

General University Requirements

All new students to the University, including transfer students, must first enroll in pre-major status and remain in pre-major status until acceptance into a major program. The University's policy governing admission to a degree program for non-transfer and transfer students is stated elsewhere in this catalog and will be explained to students by counselors within the college.

Undergraduate Admission to Major Status in the College of Science

Students are eligible for admission to major status in a degree program in the College of Science upon completion of the University's core requirements with a minimum overall GPA of 2.25 and a minimum GPA of 2.25 for a minimum of 11 credit hours of math or sci-

ence courses taken in residence as specified by individual programs. See listings under math and science programs for specific course and GPA requirements. The actual number of credit hours used for GPA calculation may exceed the minimum depending on a student's specific program of study. Each degree program within the College of Science requires completion of a core of courses specific to that program before the student is eligible for major status. In many cases, some courses specific to a program may also satisfy all or a portion of the University science core. In other cases, courses specific to a program are in addition to courses required by the University core and will require the student to accumulate more than the minimum number of credit hours required before being considered for acceptance into a program. Courses completed under the Honors Program may substitute for College of Science course requirements where applicable.

Academic Probation Policy for College of Science Majors

College of Science majors are required to maintain a minimum overall GPA of 2.0 as well as a minimum GPA of 2.0 in major courses to remain in good standing. Students whose overall or major GPA falls below 2.0 will be placed on academic probation until such time that the student's overall and major GPA reaches 2.0.

The general policy on academic probation for the College of Science may be superseded by stated policies within individual science programs.

Program Course Requirements within the College of Science

Courses listed below by program category are the minimum courses required in conjunction with or in addition to the University core curriculum before a student is eligible for acceptance into major status within a program.

Biology (Programs in Biology, Microbiology and Medical Technology)

Students who wish to apply for major status in one of the three degree programs in biology must first satisfy each of the following:

- U.T. Arlington and College of Science requirements.
- Completion of a minimum of 11 hours of biology courses in residence.
- Have acquired 12 hours of credit from BIOL 1441, 1442, 2343 and 3444 and eight hours of credit for CHEM 1301, 1302 and 1284. (For microbiology majors, BIOL 3444 replaces 1442.)

A student transferring biology courses from another institution should contact the department advisor for a list of suggested courses to take in residence.

Students currently enrolled at the University may qualify to change their major to biology by meeting the requirements listed above.

Academic Probation (College of Science): Majors whose overall GPA or GPA in major courses falls below 2.0 will be placed on probation and, in addition to counseling by the University Advising Center, may consult with the department advisor prior to enrolling in additional courses.

Chemistry and Biochemistry

Students who wish to apply for major status in programs in chemistry or biochemistry must first complete the University and College

of Science requirements and the specific requirements of the Department of Chemistry and Biochemistry listed below:

- CHEM 1301, CHEM 1302, and CHEM 1284.
- Six hours of mathematics approved by the department.
- Four hours of either biology or geology.
- 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 chemistry or biochemistry by meeting the requirements listed above.

Entering students who intend to major in chemistry or biochemistry should schedule an appointment with the departmental undergraduate advisor.

Academic Probation (College of Science): Majors whose overall GPA or GPA in major courses falls below 2.0 will be placed on probation. In addition to counseling by the University Advising Center, the student must consult with the departmental undergraduate advisor prior to enrolling in additional courses.

Geology

Students who wish to apply for major status in programs in geology should first complete the University and College of Science requirements and the specific requirements of the Department of Geology listed below:

- GEOL 1425 and GEOL 1426, or approved substitute.
- Seven hours of mathematics for B.S. program (MATH 1323 or 1325 and MATH 1426) or six hours of mathematics for B.A. program (MATH 1324 [or MATH 1302 and MATH 1303] and MATH 3316 or 1308).
- CHEM 1301 and 1302.
- 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 geology by meeting the requirements listed above.

Entering students who intend to major in geology should schedule an appointment with the department advisor.

Academic Probation (College of Science): Majors whose overall GPA or GPA in major courses falls below 2.0 will be placed on probation and, in addition to counseling by the University Advising Center, must consult with the department advisor prior to enrolling in additional courses.

Mathematics

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.

- Minimum GPA of 2.25 in at least nine hours of mathematics courses in residence at the level of MATH 1323 or above.
- At least six hours from the science or computer science courses listed in the mathematics degree plans.
- 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.

Entering students who intend to major in mathematics should schedule an appointment with the department advisor.

Academic Probation (College of Science): Majors whose overall GPA or GPA in major courses falls below 2.0 will be placed on probation and, in addition to counseling by the University Advising Center, must consult with the department advisor prior to enrolling in additional courses.

Physics

Students should schedule an appointment with the departmental advisor to ensure that he/she will take the appropriate courses necessary to be accepted as a physics major. A student may apply for major status upon satisfying University and college requirements and successful completion of major courses prescribed by the Physics Department.

Students currently enrolled at the University may qualify to change their major to physics by meeting the requirements listed above.

Academic Probation (College of Science): Majors whose overall GPA or GPA in major courses falls below 2.0 will be placed on probation and, in addition to counseling by the University Advising Center, must consult with the department advisor prior to enrolling in additional courses.

Psychology

Admission to major status in the psychology program is dependent upon successful completion of the minimum core and residency hours prescribed by the University for non-transfer and transfer students and the College of Science GPA requirements and a 2.25 GPA in all psychology courses taken in residence. Course work satisfying the core and residency requirements must include ENGL 1301 and 1302; three hours of mathematics (college algebra or above); four hours of laboratory science; nine hours in English, history, political science, social and cultural studies, fine arts and philosophy; and PSYC 1315 and 2441 or BUSA 3321.

Students currently enrolled at the University may qualify to change their major to psychology by meeting the requirements listed above.

Admission to major status in the psychology program requires application to the departmental advisor.

Academic Probation (College of Science): Majors whose overall GPA or GPA in major courses falls below 2.0 will be placed on probation and, in addition to counseling by the University Advising Center, must consult with the department advisor prior to enrolling in additional courses.

Undecided Science Major

Entering freshmen who plan eventually to major in one of the science degree programs but who have not decided on a particular major at the time of enrollment should declare an "Undecided Science Major" and may consult the Office of the Dean of Science for advice on specific courses before registration. The student is urged to declare his/her major by the beginning of the sophomore year and consult an advisor in his/her major department before subsequent registrations.

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/spreadsheets, 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 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.

Competence in Oral Presentations

Students should 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 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.

Substitutions for Modern Language 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 language. The area clusters:

African American area cluster

HIST 3365. African-American History to 1865
 HIST 3366. African-American History, 1865-present
 POLS 4312. African Regional Subsystems
 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 4368. History of Mexico
 POLS 3317 Mexican Politics and U.S.-Mexico Relations

American Indian area cluster

ANTH 3333. North American Indians
 ANTH 3346. Cultures of the American Southwest
 HIST 3367. American Indian History

Middle East area cluster

ART 3301. Ancient Near East
 POLS 4310. Middle East Regional Subsystem
 HIST 4371. Middle East in the Twentieth Century

Far East area cluster

HIST 4379. History of Modern China
 PHIL 3315. Oriental Philosophy and Religion
 POLS 3318. Political Systems of East Asia

Russian area cluster

ENGL 3301. Russian Literature in Translation
 HIST 4359. History of Russia to 1855
 HIST 4360. History of Russia since 1855
 POLS 4361. The Political Environment of Russia and the Successor States
 POLS 4362. Russia and the Successor States Today

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. Latin American Politics

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 for premedical/dental/pharmacy/optometry and veterinary medicine students is available through the Dean of Science Office, 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 school the applicant attended. In order to provide this recommendation, The University of Texas at Arlington created a Health Professions Advisory Committee. The purpose of the committee is to interview and evaluate viable 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 Dean's Office at least one year prior to making application.

Medical and dental school applicants should begin the application process in January of the year preceding entry to professional school. An applicant's file should be complete, including the Health Professions Advisory Committee evaluation, by 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 undergraduate major, leaving the student to choose a degree program suited to his or her special abilities and interests. Therefore, the student may choose any major, after conferring with an advisor, as long as the minimum requirements stated by the medical and dental schools are met. The minimum admission requirements for medical and dental school in Texas are shown below with U.T. Arlington courses 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 (1301, 1302/1284), 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.

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

1301, 1302, 1284

Organic Chemistry

2321 & 2181, 2322 & 2182

Biochemistry

4311

Physics

1441, 1442

Calculus

1426

Psychology

1315, 2441

English Composition

6 credit hours

English Literature

6 credit hours

Pre-Pharmacy (U.T. 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

1301, 1302, 1284

Organic Chemistry

2321 & 2181, 2322 & 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 Language

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 U.T. Arlington)

Inorganic Chemistry

1301, 1302, & 1284

Organic Chemistry

2321 & 2181, 2322 & 2182

Biochemistry

4311

Physics

1441, 1442

Calculus

1426

English Composition

1301

English Literature

3 credit hours

Speech

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.

Option Programs

The College of Science offers students a wide range of traditional majors and minors to prepare students for careers as teachers, researchers, health providers, etc. In addition, we offer courses in specific areas of interest to broaden a student's background in related academic areas. Students may take 12 or more credit hours in courses that will broaden their knowledge base and provide a foundation for the pursuit of alternative careers. Upon completion of these courses the student's transcript will reflect an option in the area chosen.

The areas offered are: health administration, medicine and society, research, sports medicine, computer sciences, environmental biology, and quantitative biology.

1. Medicine and Society

HIST 3386 History of Mental Health

ANTH 3369 Medical Anthropology

PHIL 3319 Biomedical Ethics

SOVI 4309 Social Policy and Health Care Delivery

SOVI 4320 Medical Sociology

PHIL 1304 Contemporary Moral Problems

2. Health Administration

ECON 2306 Principles of Micro Economics

ECON 3301 The Economics of Health

MANA 3319 Management Process Theory

MANA 3320 Human Resource Management

MARK 3321 Principles of Marketing

INSU 4330 Health Risk Management

3. Research

6 or more credit hours in advanced course work in area of interest, and 6 credit hours of upper division research.

Students pursuing this option will be expected to present a report of their research to the undergraduate research symposium or a comparable forum.

4. Sports Medicine**Level I Applied Physiology**

2330 Prevention and Care of Athletic Injuries

3315 Exercise Physiology

4315 Fitness Measurement

4316 Fitness Programming

4300 Applied Exercise Physiology

Level II Orthopedics

2330 Prevention and Care of Athletic Injuries

3315 Exercise Physiology

3330 Advanced Athletic Training

4396 Therapeutic Modalities

4396 Therapeutic Exercise

43XX Lower and Upper Extremity Evaluation

5. Computer Science Software

CSE 1320

CSE 1325

CSE 2315

CSE 2320

CSE 3310

6. Environmental Biology

MATH 2325 Calculus II

SUPA 3301 City and Regional Planning

CE 3331 Fundamentals of Environmental Systems

BIOL 3347 Environmental Biology

7. Quantitative Biology

MATH 2325 Calculus II

MATH 3316 Statistical Inference

MATH 3330 Introduction to Matrices and Linear Algebra

Plus one of the following:

CSE 1306 Computer Programming and Applications

CSE 1310 Introduction to Computers and Programming

CSE 1320 Programming Concepts Using C

Seven-Year Coordinated Program

The Department of Biology offers a seven-year coordinated program culminating in a BS/MD or DDS degree. Students in this program will complete all medical or dental school admission

requirements during their first two years at U.T. Arlington. During the third year, students will complete all general education and departmental requirements for their degree. At the end of the third year, successful applicants will begin medical or dental school. Courses taken during the first year of medical or dental school will transfer to U.T. Arlington and will be utilized for the completion of the fourth year at U.T. Arlington. Students must be approved for this program by the pre-medical advisor. All general education requirements and departmental requirements must be met prior to matriculation to medical or dental school.

Sample Curriculum 7 year BS/MD/DDS

Freshman

English	1301	English	1302
Biology	1441	Biology	1442
Chemistry	1301	Chemistry	1302 & 1284
Math	1323	Math	1426
EXSA		EXSA	

Summer

I Physics 1441
II Physics 1442

Sophomore

Literature		Literature	
Biology	3444	Biology	3301
Biology	2343	Biology	3315
Chemistry	2321 & 2181	Chemistry	2322 & 2182
		MCAT/ DAT	

Summer

I Pol Sci 2311
II Pol Sci 2312

Junior

Humanities		Social Science	
History	1311	History	1312
Biology	3442	Biology	3452
Biology	3310	Biology	3312
EXSA		EXSA	

Seven-Year BS/DO Assured Admission to Medical School

For students who wish to accelerate their premedical program with assured admission to medical school, the College of Science offers a seven-year BS/DO program in which students will complete all premedical courses in two years. The application process takes an additional year after which students begin medical school at Texas College of Osteopathic Medicine (TCOM). The first year of medical school will complete the last year of study at U.T. Arlington, and a B.S. in biology or chemistry will be awarded. To be admitted to this program, students must be approved by both U.T. Arlington and TCOM. Students in this assured admission program must meet all requirements of U.T. Arlington and TCOM including the maintenance of a 3.5 cumulative and science grade average and a 27 on the MCAT. Students must be approved by both U.T. Arlington and TCOM during their first semester of the freshman year. Accepted

students will be evaluated each semester prior to entry to medical school. Interested students should contact the U.T. Arlington premedical advisor prior to or during the first semester of studies at U.T. Arlington to be approved for this program.

Requirements for Accelerated Seven-Year BA-MD Degree in Chemistry

This program is suitable for exceptional students only. A student completes the medical or dental school prerequisites and the university core courses in 3 years. Transfer of 30 hours of first year medical or dental school course credit (must include medical biochemistry) results in the award of a Bachelor of Arts degree in chemistry.

English

Six hours of composition.

Literature

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

Modern Language

8 hours in a single modern language plus six hours from one liberal arts area cluster (See list in the 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 social or cultural anthropology, archaeology, social/political/cultural geography, economics, sociology, classical studies, or linguistics.

Fine Arts

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

Mathematics*

MATH 1323 or 1325, 1426, 2325.

* A student not qualified to take MATH 1323 or 1325 must complete the prerequisites for the course. This may add three to six hours to the total required for the degree.

Computer Science*

One course chosen from CSE 1301, 1306, 1310, or GEOL 1491.

* To fulfill the University requirement of competency in computer usage a student must take CSE 1301, or GEOL 1491 or obtain a passing score on the University proficiency exam.

Other Natural Science

PHYS 1443, 1444 and BIOL 1441, 3444, and six to eight hours BIOL 3000/4000 level course work.

Electives

Sufficient to complete the total hours required for the degree.

Major

CHEM 1284, 1301, 1302, 2181, 2182, 2321, 2322, 2335, 2285, 3301, 3317, 4101.

Minor

14-16 hours of Biology plus medical school course credit transfer will result in a minor in Biology.

Total

134 hours, of which at least 36 must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Suggested Course Sequence

Freshman Year

First Semester: CHEM 1301; MATH 1323 or 1325; BIOL 1441; ENGL 1301; CSE 1301, or 1306, or 1310, or GEOL 1491; EXSA – Total Credit 17 or 18 hours.

Second Semester: CHEM 1302; CHEM 1284; MATH 1426; BIOL 3444; ENGL 1302; EXSA – Total Credit 17 hours.

Summer

PHYS 1443; PHYS 1444 – Total Credit 8 hours.

Sophomore Year

First Semester: CHEM 2321; CHEM 2181; MATH 2325; BIOL 3000/4000 level, 3 or 4 hours; Modern Language, 4 hours; EXSA – Total Credit 15 or 16 hours.

Second Semester: CHEM 2322; CHEM 2182; BIOL 3000/4000 level, 3 or 4 hours; Modern Language, 4 hours; Fine Arts, 3 hours; EXSA – Total Credit 15 or 16 hours.

Summer

CHEM 2335; CHEM 2285 – Total Credit 5 hours.

Junior Year

First Semester: CHEM 3301; Literature, 3 hours; Liberal Arts Cluster Course, 3 hours; POLS 2311; HIST 1311 - Total Credit 15 hours.

Second Semester: CHEM 3317; CHEM 4101; Liberal Arts Cluster Course, 3 hours; POLS 2312; HIST 1312; Social Science, 3 hours - Total credit 16 hours.

Senior Year

Medical School Enrollment – Minimum requirement: Medical Biochemistry.

Notes

1. Liberal Arts Cluster Course will satisfy the core curriculum Liberal Arts Elective.
2. 30 hours of medical / dental school course credit transfers as 3000/4000 level. Total 3000/4000 level credit is 47 hours, minimum.
3. Total Credit: 134 hours minimum (min. 104 U.T. Arlington, 30 medical/dental school course credit).

Post Baccalaureate Premed Program

The post baccalaureate premedical program is designed for those students who have already completed a bachelor's degree and wish to pursue admission to medical school. Since students backgrounds may vary, each post baccalaureate program is custom designed to the individual student. Students may complete pre-medical requirements in one to two years depending upon the 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 program coordinated by the School of Nursing and the College of Science.

Students engage in classroom experiences to familiarize them with the culture of the country to be visited. The students 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 will be awarded 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
Gerontology
Prosthetics and Orthotics
Medical Technology*
Rehabilitation Science
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 the science departments. Included among these are secondary certification in Composite Science offered in the Departments of Chemistry and Biochemistry and Physics, in Earth Science offered in the Department of Geology, in Life-Earth Science offered in the Departments of Biology and Geology, and in Physical Science offered in the Departments of Chemistry and Biochemistry and Physics. These programs are coordinated with the School of Education. For more information, the student should see the School of Education section of this catalog.

Science Major/Business Administration Minor

Science majors planning to pursue a Master of Business Administration degree are advised to select a minor (18-24 semester hours) from the following courses: ACCT 2301, 2302, BUSA 2301, 2302, 3306, 3321, MANA 3319, FINA 3313, MARK 3321, and ECON 2305, 2306. Completion of the above courses will allow the student, subject to normal graduate admission requirements, to reduce the foundation MBA program requirements. A student not completing all of the courses identified above will be required to enroll in the appropriate MBA foundation courses. All students minoring in business administration should consult with an undergraduate advisor in the College of Business Administration.

Pass-Fail Program

Students majoring in a science who have earned at least 60 semester hours credit with a grade-point average of 2.5 or better may take as many as 12 semester hours on a pass-fail basis in elective courses in the sciences or mathematics for credit toward their degrees. Permission for a maximum of two courses in a given semester may be obtained up to the Census Day. Forms for both science and non-science majors are available in the Office of the Dean of Science.

Students not majoring in a science are invited to take, on a pass-fail basis, with the approval of their major departments, any course offered in the College of Science for which they are qualified.

Transfer Students

Students transferring from other institutions are invited to explore opportunities in the College of Science. Inquiries about equivalency of courses and other questions related to transferring are welcome in the Office of the Dean of Science.

Students who plan to attend junior college or another senior college before entering U.T. Arlington can get help in planning their programs of courses and may avoid needless delay of graduation by consulting an advisor in the Office of the Dean of Science before matriculating.

Science Constituency Council

The Science Constituency Council, the official student government for the College of Science, is an organization which serves both students and the College. It meets at least once a month. One of its purposes is to involve a greater number of students in matters of interest to those taking courses in the College of Science. Members are majors in the departments of the College. At least half of the voting members are elected at the time of the 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, formerly the Science Learning Center, is an on-site resource designed to facilitate the learning and understanding of science and mathematics by providing self-study modules for students through a variety of materials and equipment. In cooperation with U.T. Arlington faculty, the center offers a full spectrum of multimedia resource materials and study aids for students in biology, chemistry, mathematics, physics and psychology classes. Supplemental instruction through SOAR is available on a walk-in basis or by appointment during scheduled hours.

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 photocopies

Math Clinic

The Math Clinic is a service provided on a walk-in basis for all math students enrolled in Math 0301, 0302, 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 following is a list of some of the courses that are applicable to science and mathematics requirements. The student is advised to examine the requirements for his or her degree before making selections. The list is intended, also, to encourage interest in the sciences and mathematics beyond degree requirements. 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)
- 1310. Careers in Allied Health (3-0)
- 1333. Introduction to Biology (3-0)
- 1334. Introduction to Biology (3-0)
- 2311. Man and Environment (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)
- 3310. Air Pollution Chemistry (3-0)

Geology

- 1425. Earth Systems (3-1)
- 1426. Earth History (3-1)
- 2401. Weather and Climate (3-1)
- 2404. Geologic Hazards (3-1)
- 2405. History of Life and Geologic Time (3-1)
- 2408. Geology of National Parks and Monuments (3-1)
- 2409. The Earth's Landforms (3-1)
- 2410. Planetary Geology (3-1)
- 2411. Global Environmental Issues (3-1)

2412. Environmental Geology of the Dallas/Fort Worth Metroplex (3-1)

3403. Volcanoes and Volcanic Processes (3-1)

Mathematics

1302. College Algebra (3-0)

1308. Elementary Statistical Analysis (3-0)

1315. College Algebra for Economics and Business Analysis (3-0)

Physics

1300. 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)*

2441. 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 Women (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)*

Science (SCIE)

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.

1101. SEMINAR IN SCIENCE EDUCATION I (1-0) 1 hour credit. Seminar and field experience in a high-quality, inquiry-based teaching and learning environment in formal and informal science sites with middle school through high school students.

1102. SEMINAR IN SCIENCE EDUCATION II (1-0) 1 hour credit. Seminar and field experience in a high-quality, inquiry-based teaching and learning environment in formal or informal science sites with pre-school through elementary students.

2301. FOUNDATIONS OF SCIENCE (3-0) 3 hours credit. 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.

4101. SPECIAL TOPICS IN COMPOSITE SCIENCE (1-0) 1 hour credit. 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.

4302. TEACHING AND LEARNING: SCIENTIFIC INQUIRY (3-0) 3 hours credit. 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.

The Department of Biology

337 Life Science Bldg. • Box 19498 • 817-272-2871 • www.uta.edu/biology
Academic Advising: 346 Life Science Bldg. • 817-272-2408

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 three programs of study leading to an undergraduate degree. These are 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 12 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.

There are six 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 **Biotechnology** specifically prepares students for careers in the rapidly expanding area of biotechnical 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 **Pre-allied Health** is specifically designed to prepare students and provide them with the requirements needed to enter schools of allied health. Option six, **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.S. degree, 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 817-272-2871 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 3315.** Genetics
- and 1 additional microbiology course

Chemistry

- CHEM 1301.** General Chemistry 1
- CHEM 1302.** General Chemistry 2
- CHEM 1284.** General Chemistry Laboratory

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 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 1301; BIOL 1441; HIST 1311; EXSA/DNCA or Marching Band or ROTC—Total Credit 17 hours.

Second Semester: ENGL 1302; MATH 1426; CHEM 1302; CHEM 1284; BIOL 1442 or 2343*; HIST 1312; EXSA/DNCA, Marching Band or ROTC—Total Credit 18-19 hours.

Sophomore Year

First Semester: ENGL or SPCH 3302, 3 hours; CHEM 2181 and 2321; BIOL 1442 or 2343*; POLS 2311; EXSA/DNCA, Marching Band or ROTC—Total Credit 14-15 hours.

Second Semester: ENGL or SPCH 3302, 3 hours; CHEM 2182 and 2322; BIOL 3315; POLS 2312; EXSA/DNCA, Marching Band or ROTC—Total Credit 14 hours.

* 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 U.T. Arlington, be placed into pre-major status: pre-BIOL, pre-MEDT, or pre-MICR 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 U.T. Arlington).
- At least 11 hours in biology courses taken at U.T. 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 U.T. 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 U.T. Arlington.

Maintaining Major Status

- Students who are accepted as majors in biology, microbiology, or medical technology must thereafter maintain a GPA of 2.0 or better in all courses and in biology courses. Any student whose GPA falls below 2.0 in either of these categories will be returned to undeclared status at the end of the semester in which the deficiency occurs. A letter confirming this action will be sent to the student in question.
- 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 U.T. 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 U.T. 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.

General Information

- In order to receive a B.S. degree in Biology or Microbiology from U.T. Arlington, transfer students must complete a minimum of 18 hours of junior or senior level courses (12 of the 18 hours in Biology) at U.T. 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 U.T. Arlington to qualify for a B.S. Degree in Medical Technology from U.T. Arlington.
- No student working toward 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. Non-majors may enroll in any junior or senior biology course on a Pass/Fail basis at the instructor's discretion. Approval must be given in the first week of the semester. Formal evaluation of the work for Pass/Fail credit will be made by the supervising professor that is consistent with grading in the same or other courses at this level. The equivalent or a grade of C or better is required to receive a Pass.
- 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 GEOL 1491 or obtain a passing score on the University proficiency exam. Oral communication competency can be demonstrated by completion of BIOL 3101, 3177, SPCH 1301, or SPCH 3302.

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 six options (i.e., Option 1-General Biology, Option 2-Biotechnology, Option 3-Environmental Biology, Option 4-Pre-Medical, Pre-Dental and Pre-Veterinary, Option 5-Allied Health, and Option 6-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 (Biotechnology), Option 3 (Environmental Biology), Option 4 (Pre-Medical, Pre-Dental and Pre-Veterinary), Option 5 (Allied Health), and Option 6 (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 2-6 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 (Scientific and Technical Writing) or SPCH 3302*.

*A course in which students develop proficiency in oral presentation must be taken to meet University requirements for graduation. SPCH 3302 can be used as an elective to meet this requirement if BIOL 3305 is used to meet the English requirement. BIOL 3101 or BIOL 3177 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 fulfil 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, 2 hours of which must be advanced (i.e., 3000/4000 level courses)

Natural Science other than Biology (24 hours)

CHEM 1301, 1302, 1284, 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 3327/3183, 3444 and 3454; 6 hours of advanced core courses chosen from BIOL 3333, 3339, 3442, 3457, and 3301, plus 11 hours of advanced BIOL elective courses.

Total of 120 hours* plus EXSA/DNCA **

*University requires a minimum of 36 advanced hours to satisfy degree requirements.

**4 hours of EXSA/DNCA, ROTC or Marching Band in addition to those required for the degree are required for all students under 25 years of age at the time of graduation.

Suggested Course Sequence

Freshman Year: ENGL 1301, MATH 1323, CHEM 1301, BIOL 1441, HIST 1311 - 16 hours

ENGL 1302, MATH 1426, CHEM 1302, CHEM 1284, BIOL 1442, EXSA/DNCA - 17 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, EXSA/DNCA - 17 hours

Junior Year: BIOL Diversity (4 hours), BIOL Adv. Core (3 hours), PHYS 1441, SPCH 3302, EXSA/DNCA - 15 hours

BIOL Diversity (4 hours), BIOL Adv. Core (3 hours), PHYS 1442, Elective (3 hours), EXSA/DNCA - 15 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: Biotechnology

The biotechnology option is intended to prepare students for laboratory-oriented careers in 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 SPCH 3302*.

*A course in which students develop proficiency in oral presentation must be taken to meet University requirements for graduation. SPCH 3302 can be used as an elective to meet this requirement if BIOL 3305 is used to meet the English requirement. BIOL 3101 or BIOL 3177 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 fulfil 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 at any level.

Natural Science other than Biology (30 hours)

CHEM 1301, 1302, 1284, 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; 11 hours of biotechnology core courses consisting of 3181, 3444, 3333, and 4313; and 14 hours of advanced biology electives of which three courses must have a laboratory component (indicated by *) chosen from BIOL 3445*, 4346*, 4289*#, 3149*/3249 Cooperative Work Credit*, 3301, 3312, 3339, 4302, 4312, 4315, 4340, and CHEM 4314 and 4242*.

#Must be taken under the supervision of approved faculty members.

Total of 120 hours* plus EXSA/DNCA**

* University requires a minimum of 36 advanced hours to satisfy degree requirements.

** 4 hours of EXSA/DNCA, ROTC or Marching Band in addition to those required for the degree are required for all students under 25 years of age at the time of graduation.

Suggested Course Sequence

Freshman Year: ENGL 1301, MATH 1323, CHEM 1301, BIOL 1441, HIST 1311, EXSA/DNCA - 17 hours

ENGL 1302, MATH 1426, CHEM 1302, CHEM 1284, BIOL 1442, EXSA/DNCA - 17 hours

Sophomore Year: HIST 1312, POLS 2311, CHEM 2321, CHEM 2181, BIOL 2343, PHYS 1441, EXSA/DNCA - 18 hours
POLS 2312, CHEM 2322, CHEM 2182, PHYS 1442, BIOL 3315, BIOL 3181, EXSA/DNCA - 16 hours

Junior Year: BIOL 3444, CHEM 4311, SPCH 3302, BIOL 1450 - 14 hours
BIOL 2300, BIOL 3333, CHEM 4312, Social/Cultural Studies Elective (3 hours), BIOL 3305 - 15 hours

Senior year: BIOL 4313, 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 (3 hours), Elective (4 hours) - 13 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 SPCH 3302*.

*A course in which students develop proficiency in oral presentation must be taken to meet University requirements for graduation. SPCH 3302 can be used as an elective to meet this requirement if BIOL 3305 is used to meet the English requirement. BIOL 3101 or BIOL 3177 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* (10 hours)

1323, 1426, 2325

*Transfer students must present a minimum of nine semester credit hours of equivalent or higher level mathematics courses through transfer or placement examination.

Electives (4 hours)

4 hours of elective courses at any level.

Recommended courses include: ANTH 3343, ECON 4302, ARCH 4307, and MANA 3319.

Natural Science other than Biology (24 hours)

CHEM 1301, 1302, 1284, 2321, 2322, 2181 and 2182, and PHYS 1441 and 1442.

Electives in other sciences (6 hours)

6 hours to be chosen from GEOL 1425, 3305, 3307, 3311, 4320, 4350, 4352, 4408; CHEM 3310; PSYC 3316; and CE 3331.

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 3327/3183, 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*, 3314, 3328, 3341, 3339, 3347, 3318/3170*, 3348*, 3455*, 3457*, 4338, and 4444*.

Total of 120 hours* plus EXSA/DNCA**

*University requires a minimum of 36 advanced hours to satisfy degree requirements.

**4 hours of EXSA/DNCA, ROTC or Marching Band in addition to those required for the degree are required for all students under 25 years of age at the time of graduation.

Suggested Course Sequence

Freshman Year: ENGL 1301, MATH 1323, CHEM 1301, BIOL 1441, HIST 1311, EXSA/DNCA - 17 hours

ENGL 1302, MATH 1426, CHEM 1302, CHEM 1284, BIOL 1442, EXSA/DNCA - 17 hours

Sophomore Year: CHEM 2181/2321, BIOL 1450, BIOL 2343, BIOL 2300, POLS 2311-15 hours
CHEM 2182/2322, BIOL 3315, BIOL 3327/3183, HIST 1312, POLS 2312 - 17 hours

Junior Year: BIOL 3444, Soc Sci Elective (3 hours), MATH 2325, PHYS 1441, EXSA/DNCA - 15 hours
BIOL 3454, BIOL Adv. Elective (3 hours), PHYS 1442, BIOL 3305, SPCH 3302 - 17 hours

Senior year: Other Sci 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), EXSA/DNCA - 13 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 SPCH 3302*.

*A course in which students develop proficiency in oral presentation must be taken to meet University requirements for graduation. SPCH 3302 can be used as an elective to meet this requirement if BIOL 3305 is used to meet the English requirement. BIOL 3101 or BIOL 3177 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 fulfil 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, 3 of which must be advanced (i.e., 3000/4000 level courses, CHEM 4312 recommended).

Natural Science other than Biology (27 hours)

CHEM 1301, 1302, 1284, 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 3327/3183, 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, 3333, 3345, 3452, 4312, or CHEM 4312.

Total of 120 hours* plus EXSA/DNCA**

*University requires a minimum of 36 advanced hours to satisfy degree requirements.

**4 hours of EXSA/DNCA, ROTC or Marching Band in addition to those required for the degree are required for all students under 25 years of age at the time of graduation.

Suggested Course Sequence

Freshman Year: ENGL 1301, MATH 1323, CHEM 1301, BIOL 1441, HIST 1311, EXSA/DNCA - 17 hours

ENGL 1302, MATH 1426, CHEM 1302, CHEM 1284, BIOL 1442, EXSA/DNCA - 17 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, SPCH 3302, EXSA/DNCA - 16 hours

BIOL Diversity (4 hours), BIOL 3452, PHYS 1442, Literature (3 hours), EXSA/DNCA - 16 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 (3 hours), CHEM 4312, Elective (4 hours) - 13 hours.

Option 5: Pre-Allied Health

The Pre-Allied Health Option provides suitable courses to prepare students for training in most fields of Allied Health. Students should maintain contact personally with any Schools of Allied Health at which they plan to apply, thereby assuring that all requirements will be met. Students must also meet with the Pre-Allied Health advisor at least once per semester.

English, Technical Writing and Speech (12 hours)

ENGL 1301, 1302, three hours of literature and either BIOL 3305 (Scientific and Technical Writing) or SPCH 3302*.

*A course in which students develop proficiency in oral presentation must be taken to meet University requirements for graduation. SPCH 3302 can be used as an elective to meet this requirement if BIOL 3305 is used to meet the English requirement. BIOL 3101 or BIOL 3177 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)

SOCI 1311

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 (13 hours minimum)

7 hours to be chosen from PSYC 1315, BIOL 2457, 2458 or 1310, and 6 hours of advanced electives to be chosen from BIOL 3310 (Medical Terminology), ECON 3301 or PHIL 3319.

Natural Science other than Biology (24 hours)

CHEM 1301, 1302, 1284, 2321, 2322, 2181, 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 consisting of BIOL 3444, and 3454; 8

hours of advanced core courses consisting of BIOL 3442 and 3452; and 9 hours of advanced biology elective courses to be chosen in consultation with the allied health advisor to ensure that prerequisites of the desired Allied Health Program are fulfilled.

Total of 120 hours* plus EXSA/DNCA**

*University requires a minimum of 36 advanced hours to satisfy degree requirements.

**4 hours of EXSA/DNCA, ROTC or Marching Band in addition to those required for the degree are required for all students under 25 years of age at the time of graduation.

Suggested Course Sequence

Freshman Year: ENGL 1301, MATH 1323, CHEM 1301, BIOL 1441, HIST 1311, EXSA/DNCA - 17 hours
ENGL 1302, MATH 1426, CHEM 1302, CHEM 1284, BIOL 1442, EXSA/DNCA - 17 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 3444, BIOL 3442, PHYS 1441, SPCH 3302, EXSA/DNCA - 16 hours
BIOL 3454, BIOL 3452, PHYS 1442, Elective (4 hours), EXSA/DNCA - 17 hours

Senior year: BIOL Adv. Electives (6 hours), Social/Cultural Studies Elective (3 hours), Literature (3 hours) - 12 hours
BIOL Adv. Elective with Lab (3 hours), Fine Arts Elective (3 hours), Adv. Elective (3 hours), Adv. Elective (4 hours) - 13 hours.

Option 6: 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 SPCH 3302*.

*A course in which students develop proficiency in oral presentation must be taken to meet University requirements for graduation. SPCH 3302 can be used as an elective to meet this requirement if BIOL 3305 is used to meet the English requirement. BIOL 3101 or BIOL 3177 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)

ANTH 4307.

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)

CRCJ 3370, ANTH 4306, Adv. Elective (4 hours).

Natural Science other than Biology (27 hours)

CHEM 1301, 1302, 1284, 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; 13 hours of advanced core courses consisting of BIOL 3327/3183, 3339, 3341, 4352 and 12 hours of advanced biology electives to be chosen from 3312, 3444*, 3349# (Co-op internship), 3452*, and 4346* of which one course must have a laboratory component (* indicates laboratory courses).

#BIOL 3349 can be counted as a substitute for laboratory credit with permission of the forensics advisor.

Total of 120 hours* plus EXSA/DNCA**

*University requires a minimum of 36 advanced hours to satisfy degree requirements.

**4 hours of EXSA/DNCA, ROTC or Marching Band in addition to those required for the degree are required for all students under 25 years of age at the time of graduation.

Suggested Course Sequence

Freshman Year: ENGL 1301, MATH 1323, CHEM 1301, BIOL 1441, HIST 1311, EXSA/DNCA - 17 hours
ENGL 1302, MATH 1426, CHEM 1302, CHEM 1284, BIOL 1442 - 16 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, EXSA/DNCA - 17 hours

Junior Year: BIOL 3183/3327, BIOL 3339, ANTH 4307, CRCJ 3370, EXSA/DNCA - 14 hours
CHEM 4311, ANTH 4306, BIOL 3341, Fine Arts (3 hours), SPCH 3302, EXSA/DNCA - 16 hours

Senior year: BIOL 3305, BIOL Adv. Elective with Lab (3 hours), BIOL 4352, PHYS 1441 - 13 hours
BIOL Adv. Electives (6 hours), PHYS 1442, Elective (4 hours) - 14 hours

Bachelor of Science Degree in Medical Technology

A student who completes the special degree plan given below plus 12 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 SPCH 3302*.

*A course in which students develop proficiency in oral presentation must be taken to meet University requirements for graduation. SPCH 3302 can be used as an elective to meet this requirement if BIOL 3305 is used to meet the English requirement. BIOL 3101 or BIOL 3177 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 PSYC 2441.

Natural Science other than Biology (27 hours)

PHYS 1441, 1442; CHEM 1301, 1302, 1284, 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, plus exercise and sport activities (EXSA/DNCA) or marching band or ROTC as required in addition to 12 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

Twelve-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 SPCH 3302*.

*A course in which students develop proficiency in oral presentation must be taken to meet University requirements for graduation. SPCH 3302 can be used as an elective to meet this requirement if BIOL 3305 is used to meet the English requirement. BIOL 3101 or 3177 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 1301, 1302, 1284, 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, 3315, 3444, 3445, 3351 and 4445. Twenty additional hours must be selected from the following: 3181, 3301, 3311, 3312, 3328, 3343, 3353, 4302, 4312, 4313, 4346, 4388#♦, 4189#♦, 4289#♦.

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* plus EXSA/DNCA**

*University requires a minimum of 36 advanced hours to satisfy degree requirements.

**4 hours of EXSA/DNCA, ROTC or Marching Band in addition to those required for the degree are required for all students under 25 years of age at the time of graduation.

Suggested Course Sequence

Freshman Year: ENGL 1301, MATH 1323, CHEM 1301, BIOL 1441, HIST 1311, EXSA/DNCA - 17 hours

ENGL 1302, MATH 1426, CHEM 1302, CHEM 1284, BIOL 3444, EXSA/DNCA - 17 hours

Sophomore Year: HIST 1312, POLS 2311, CHEM 2321, CHEM 2181, BIOL 3315, PHYS 1441, EXSA/DNCA - 18 hours

POLS 2312, CHEM 2322, CHEM 2182, PHYS 1442, BIOL 3445, EXSA/DNCA - 16 hours

Junior Year: BIOL 4445, CHEM 4311, SPCH 3302, BIOL 1450 - 14 hours

BIOL, Microbiol Electives (6 hours), BIOL 3351, Social/Cultural Studies Electives (3 hours), Elective (3 hours) - 15 hours

Senior Year: BIOL, Microbiol Electives (8 hours), Fine Arts Elective (3 hours), Literature (3 hours) - 14 hours

BIOL, Microbiol 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, including a Bachelor of Science Degree in Biology. The curriculum is offered jointly by the College of Engineering and the College of Science.

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

English (6 hours)

1301, 1302.

Mathematics (13 hours)

1426, 2325, 2326, 3318.

Natural Science other than Biology (27 hours)

PHYS 1443, PHYS 1444, CHEM 1284, CHEM 1301, CHEM 1302, CHEM 2181, CHEM 2182, CHEM 2321, CHEM 2322, CHEM 4311.

Biology (30 hours)

BIOL 1441, 1442, 3301, 33XX, 3312, 3315, 3444, 4346, 5361.

Core Engineering (31 hours)

CE 2312, CSE 1320, EE 2320, MAE 2381, MAE 2314, MAE 3183, MAE 3310, MAE 3314, MAE 3317, MAE 3319, MAE 4345.

Biomedical Engineering (30 hours)

BME 1225, 4325, 5193, 5335, 5344, 5361, 5364, 5365, 5366, 5382, 5390.

Anatomy/Physiology (6 hours)

BME 5307D, BME 5309D.

Other General Educational Courses

Literature (6 hours)

Six hours of English or modern language literature.

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, archaeology, social/political/cultural geography, economics, sociology, classical studies, psychology, or linguistics.

Total (for degrees)

167 semester hours, plus four semester hours of exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Suggested Course Sequence

Freshman Year

First Semester: BME 1225; MATH 1426; BIOL 1441; CHEM 1301; POLS 2311; EXSA/DNCA - 17 hours.

Second Semester: MATH 2325; BIOL 1442; CHEM 1302; CHEM 1284; POLS 2312; ENGL 1301 - 18 hours.

Sophomore Year

First Semester: MATH 2326; PHYS 1443; CHEM 2321; CHEM 2181; HIST 1311; ENGL 1302; EXSA/DNCA - 18 hours.

Second Semester: MATH 3318; PHYS 1444; CHEM 2322; CHEM 2182; HIST 1312; 3 hours of fine art; EXSA/DNCA - 18 hours.

Junior Year

First Semester: CE 2312; MAE 3310 or CHEM 3321; CSE 1320; BIOL 3301, 3 hours of social/cultural studies; EXSA/DNCA - 16 hours.

Second Semester: MAE 2314; EE 2320; MAE 2381; BIOL 3444; BIOL 3315; 3 hours of literature - 19 hours.

Summer Session: BME 5307D; BME 5309D - 6 hours.

Senior Year

First Semester: MAE 3183; MAE 3314; BME 4325; BIOL 3312; CHEM 4311; 3 hours of literature - 16 hours.

Second Semester: MAE 3319; MAE 3317 or EE 3317; MAE 4345 or EE 4315; BME 5382; BIOL 4346 - 15 hours.

Summer Session: BME 5344; BME 5364 - 6 hours.

Fifth Year

First Semester: BME 5335; BME 5361; BME 5366; BIOL 5361 or BIOL 5362, BIOL 33XX - 15 hours.

Second Semester: BME 5365; BME 5390; BME 5193 - 7 hours.

Required Hours in EXSA/DNCA or ROTC or Marching Band

Courses in EXSA/DNCA or ROTC or Marching Band can be taken in different semesters. A suggested sequence is one hour in the first semester of the freshman year, one hour each in the first and second semesters of the sophomore year, and one hour in the first semester of the junior year.

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 five-year Master of Business Administration (MBA), including a Bachelor of Science Degree in Biology. The curriculum is offered jointly by the College of Business Administration and the College of Science. The BS in Biology will be conferred at the same time as the MBA. If a student in this joint degree program is not accepted into the MBA program, or if a student enters the MBA program and fails to complete the requirements for the MBA, then, in order to earn a BS in Biology he/she 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 SPCH 3302*.

*A course in which students develop proficiency in oral presentation must be taken to meet University requirements for graduation. SPCH 3302 can be used as an elective to meet this requirement if BIOL 3305 is used to meet the English requirement. BIOL 3177 or 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)

ECON 2305 Macroeconomics

Computer Literacy

BUSA 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 3 laboratory classes: 2457*, 3301, 3312, 3333, 3442*, 3353*, 3310 (medical terminology), 3388 (medical techniques), 4312, 4315, 4346*.

* Indicates a laboratory course.

Science other than Biology (24 hours)

PHYS 1441, 1442, CHEM 1284, 1301, 1302, 2181, 2182, 2321, 2322.

Core Business (15 hours)

BUSA 3321, MANA 3323, FINA 3313, MARK 3321, MANA 3319.

Total

154 hours, plus exercise and sport activities (EXSA/DNCA), Marching Band, or ROTC as required.

Suggested Course Sequence

Freshman Year: ENGL 1301, MATH 1315, CHEM 1301, BIOL 1441, HIST 1311, EXSA/DNCA - 17 hours

ENGL 1302, MATH 1316, CHEM 1302, CHEM 1284, BIOL 1442, HIST 1312 - 18 hours

Sophomore Year: ECON 2305, POLS 2311, CHEM 2181 and 2321, BUSA 2303 or BIOL 1450, BIOL 3444, EXSA/DNCA - 18 or 19 hours

CHEM 2182 and 2322, BIOL 3315, ENGL or SPCH 3302, POLS 2312, BUSA 3321, EXSA/DNCA - 17 hours

Junior Year: PHYS 1441, ENGL or SPCH 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 - 17 to 18 hours

Senior year: ACCT 5301, BIOL elective, BIOL elective, MANA 3323, EXSA/DNCA - 13 to 15 hours

ACCT 5302, FINA 3313, BUSA 5330 or 5337, BIOL elective, 3 hours approved graduate business elective - 15 to 16 hours

Fifth Year: BUSA 5325, ECON 5313, 9 hours approved graduate business electives - 15 hours

BUSA 5333, 9 hours approved graduate business electives - 12 hours.

Dual Degree Plan: Bachelor of Science Degree in Biology and Master of Science in Health Care Administration

A five-year curriculum designed to prepare students for careers in health care administration. The curriculum also prepares students for medical school and advanced study. Students are required to take courses from life sciences, business and liberal arts, culminating in a five-year Master of Science Degree in Health Care Administration (HCA), including a Bachelor of Science Degree in Biology. The cur-

BIOLOGY

riculum is offered jointly by the College of Business Administration and the College of Science. The BS in Biology will be conferred at the same time that the student is awarded the MS in Health Care Administration. If a student engaged in this joint degree program is not accepted into the HCA graduate program, or enters the HCA program and fails to complete the requirement 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 proposed 3-2 Biology/Business 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 SPCH 3302*.

*A course in which students develop proficiency in oral presentation must be taken to meet University requirements for graduation. SPCH 3302 can be used as an elective to meet this requirement if BIOL 3305 is used to meet the English requirement. BIOL 3177 or 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)

ECON 2306 Microeconomics

Computer Literacy

BUSA 2303 or BIOL 1450

Mathematics (6 hours)

1315 College Algebra for Economics and Business

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 and must include at least 3 laboratory classes: 2457*, 3301, 3312, 3333, 3442*, 3353*, 3310 (medical terminology), 3388 (medical techniques), 4312, 4315, 4346*.

* Indicates a laboratory course.

Science other than Biology (24 hours)

PHYS 1441, 1442, CHEM 1284, 1301, 1302, 2181, 2182, 2321, 2322.

Core Business (12 hours)

ACCT 2301 Financial Accounting

ACCT 2302 Managerial Accounting

MANA 3319 Management Process Theory

BUSA 3321 Statistics I

Approved Elective Undergraduate Business Courses (9 hours)

Fourth Year (Take at graduate level as undergraduate - 9 hours)

HCAD 5301 Health Care Administration I

HCAD 5302 Health Care Administration II

INSY 5330 Information and Decision Systems and Concept, or equivalent

Fifth Year (21 hours)

ECON 5333 Economics of Health or SOCW 6345 Health Policy

INSY 5350 Health Care Information Systems

FINA 5315 Health Care Financial Management

HCAD 5390 Seminar in Health Care Administration

HCAD 5399 Residence

HCAD 5699 Residence

Total: 151 hours, plus exercise and sport activities (EXSA/DNCA) or marching band or ROTC as required.

Suggested Course Sequence

Freshman Year: ENGL 1301, MATH 1315, CHEM 1301, BIOL 1441, HIST 1311, EXSA/DNCA - 17 hours

ENGL 1302, MATH 1316, CHEM 1302, CHEM 1284, BIOL 1442, HIST 1312 - 18 hours

Sophomore Year: ECON 2306, POLS 2311, CHEM 2181 and 2321, ACCT 2301, BIOL 3444, EXSA/DNCA - 18 hours
CHEM 2182 and 2322, BIOL 3315, ACCT 2302, POLS 2312, BUSA 2303 or BIOL 1450, EXSA/DNCA - 17 or 18 hours

Junior Year: PHYS 1441, ENGL or SPCH 3302, BIOL electives (6 hours), Fine Arts 3 hour elective, EXSA/DNCA - 17 hours
BIOL electives (7 hours), PHYS 1442, ENGL OR SPCH 3302, BUSA 3321 - 17 hours

Senior year: MANA 3319, BIOL elective, HCAD 5301, approved undergraduate business electives (6 hours) - 15 hours
Approved undergraduate business elective (3 hours), INSY 5330, BIOL electives (6 hours), HCAD 5302 - 15 hours

Fifth Year: ECON 5333, INSY 5350, FINA 5315, HCAD 5399 - 12 hours
 HCAD 5390, HCAD 5699 - 9 hours

Department of Biology Faculty

Chair

Professor Bacon

Professors

Arnott, Campbell, Chrzanowski, Formanowicz, Frye, Hellier, McMahon, Neill, Robinson, Smatresk

Associate Professors

Bernard, Grover, Payne

Assistant Professors

Burleson, Chippindale, Marshall, McAllister, Passy, Smith, van Waasbergen, Wilk-Blaszczak

Lecturers

Ammerman, Henry, Wolfe

Biology (BIOL)

Designation of Semester in which Courses are Offered

To assist students in planning their sequence of courses, all biology course descriptions include the semester(s) when they are usually taught. However, the Department of Biology reserves the right to change the semester in which any course is taught.

Designations are: **F**-Fall, **S**-Spring, **SS**-Summer Session, **I**-Irregular, **W**-Winter session; **M**-Maymester.

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

1282. INTRODUCTION TO BIOLOGY LABORATORY (1-2) 2 hours credit (BIOL 1108, 1109). 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. Prerequisites: BIOL 1333 and 1334. It is recommended that this course be taken concurrently with BIOL 1334. F, S, SS.

1301. NUTRITION (3-0) 3 hours credit. Nutrients essential to an adequate diet and good health and the nutritive values of common foods are reviewed. Also listed as 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. F, S, SS.

1310. CAREERS IN ALLIED HEALTH (3-0) 3 hours credit. An overview of allied health careers and concepts relevant to the health care industry. Topics include: the organization of health care in America, external factors affecting the health care industry, medical ethics, biotechnology and health care, and alternate careers in biology. May not be used for Biology grade point calculation or Biology credit toward a BS degree in Biology, Microbiology or Medical Technology. I.

1333. INTRODUCTION TO BIOLOGY I (3-0) 3 hours credit (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. F, S, SS.

1334. INTRODUCTION TO BIOLOGY II (3-0) 3 hours credit (BIOL 1409). 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. It is recommended that BIOL 1282 and BIOL 1334 be taken concurrently. F, S, SS.

1441. CELL AND MOLECULAR BIOLOGY (3-2) 4 hours credit (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. F, S, SS.

1442. STRUCTURE AND FUNCTION OF ORGANISMS (3-2) 4 hours credit. 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. F, S, SS.

1450. COMPUTER LITERACY IN BIOLOGY (3-3) 4 hours credit. 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. Prerequisites: BIOL 1441 and 1442. F, S.

2300. INTRODUCTION TO BIostatISTICS (3-0) 3 hours credit. Introduction to the collection, description, and analysis of data with statistical methods appropriate for biological sciences. Prerequisites: BIOL 1441 and 1442, or permission of the instructor. I.

2311. MAN AND ENVIRONMENT (3-0) 3 hours credit. Reviews some of the major problems facing man in our modern technological society. Topics addressed include population problems, resource depletion, and pollution. May not be used for biology grade point calculation or biology credit toward a BS degree in biology, microbiology, or medical technology. F, S.

2317. BASIC CONCEPTS IN HUMAN SEXUALITY (3-0) 3 hours credit. The physiological, psychological, and sociological aspects of human sexuality. Also listed as HEED 2317 and PSYC 2317. Credit will be granted for one of these three 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. F.

2343. EVOLUTION, ECOLOGY AND BIODIVERSITY (3-0) 3 hours credit. Reviews three significant aspects of organismal biology and presents current hypotheses concerning the origin and diversi-

fication 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. F, S, SS.

2457. HUMAN ANATOMY AND PHYSIOLOGY I (3-2) 4 hours credit (BIOL 2401). 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 (EXSS), medical technology and pre-nursing. Prerequisite: BIOL 1441 or equivalent, and 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. F, S, SS.

2458. HUMAN ANATOMY AND PHYSIOLOGY II (3-2) 4 hours credit (BIOL 2402). 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 (EXSS), medical technology and pre-nursing. Prerequisites: BIOL 1441 or the equivalent, BIOL 2457, and 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. F, S, SS.

3101. CURRENT TOPICS IN BIOLOGY (1-0) 1 hour credit. 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. Prerequisites: BIOL 1441, 1442, 2343, and 3315, or permission of the instructor. I.

3149, 3249, 3349. COOPERATIVE PROGRAM IN BIOLOGY (10-30) 1-3 hours credit. 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. A maximum of 3 hours can be applied to the major for biology or microbiology credit. These courses are offered on a pass/fail basis. F, S, SS.

3170. LIMNOLOGY LABORATORY (0-3) 1 hour credit. 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. I.

3177. ORAL COMMUNICATION SKILLS IN BIOLOGY (1-0) 1 hour credit. Study and practice of effective oral communication skills in Biology. Students will gain experience in developing effective oral communication techniques by learning to evaluate, prepare, and deliver oral presentations based on selected topics in Biology. This course will satisfy the Oral Communication Competency required in Biology. Graded by pass/fail only. Prerequisites: completion of BIOL 1441, 1442, 2343, and 3315. May not be used for Biology credit toward a BS degree in biology or microbiology. I.

3181. LABORATORY IN GENETICS (0-3) 1 hour credit. An experimental laboratory in which breeding experiments with certain plants, *Neurospora* and *Drosophila*, are used to verify the principles of classical genetics. In addition, studies on probability theory and analysis of results, population genetics, and salivary gland chromosomes are completed. Prerequisite: BIOL 3315 or concurrent enrollment. I.

3182. BASIC AND APPLIED BIOSCIENCE (1-0) 1 hour credit.

Designed to encourage junior and senior level biology students to explore career opportunities in biology and to develop degree plans that best suit their specific areas of interest as they near graduation. This seminar based course provides an overview of current employment and research. I.

3183. PLANT SCIENCE LABORATORY (0-3) 1 hour credit. The laboratory is designed to support and expand the course content of Plant Science, BIOL 3327. Includes the study of structure, function, reproduction and classification of plants. Prerequisite: BIOL 3327 or concurrent enrollment. S.

3300. ANCIENT LIFE (3-0) 3 hours credit. This course reviews the biology, physiology, and ecology of extinct organisms from the first appearance of life on earth, through prokaryotes, to eukaryotes, and the development of multicellularity through to the form and function of complex marine and terrestrial species. Throughout the course, emphasis will be on the biology of extinct organisms and how geological events have shaped the course of life on earth. Prerequisites: BIOL 1441, 1442 and 3454. I.

3301. CELL PHYSIOLOGY (3-0) 3 hours credit. An introduction to the basic physical, chemical, and biological principles which govern function in eukaryotic cells, and the relationships between cells and their environments. Prerequisites: BIOL 1441, 1442 and 2343. CHEM 2181 and 2321 are recommended. F.

3303. DRUGS AND BEHAVIOR (3-0) 3 hours credit. A survey of the psychoactive agents, their therapeutic uses, and social abuses. Alcohol, nicotine, caffeine, narcotics, hallucinogens, stimulants, and tranquilizers. Also listed as PSYC 3303 and HEED 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. I.

3305. SCIENTIFIC AND TECHNICAL WRITING (3-0) 3 hours credit. 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. Prerequisites: BIOL 1441 and 1442, or permission of the instructor. I.

3309. NON-MAJORS SELECTED TOPICS (3-0) 3 hours credit. 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. I.

3310. SELECTED TOPICS IN BIOLOGY (3-0) 3 hours credit. 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. I.

3311. SELECTED TOPICS IN MICROBIOLOGY (3-0) 3 hours credit. 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. I.

3312. IMMUNOBIOLOGY (3-0) 3 hours credit. An introduction to the components, properties, and manifestations of the adaptive immune response that occurs in vertebrates. Prerequisites: BIOL 1441, 3444. CHEM 2181, 2321 are recommended. F, S, SS.

3315. GENETICS (3-0) 3 hours credit. Principles of molecular and classical genetics. The function and transmission of hereditary material in microorganisms, plants, and animals, including humans. Prerequisites: BIOL 1441, 1442 and 2343. F, S, SS.

3318. LIMNOLOGY (3-0) 3 hours credit. 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. Prerequisites: BIOL 1441, 1442, and 2343 and one year of chemistry. F.

3326. ANIMAL BEHAVIOR (3-0) 3 hours credit. A survey of research and theory comparing behavior at various phyletic levels. Also listed as PSYC 3326. Credit will be granted for only one of these courses. Prerequisites: BIOL 1441, 1442 and 2343. F.

3327. PLANT SCIENCE (3-0) 3 hours credit. 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. Prerequisites: BIOL 1441, 1442 or equivalent. S.

3328. ENVIRONMENTAL MICROBIOLOGY (3-0) 3 hours credit. 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. Prerequisites: BIOL 1441 and 3444. S.

3333. CELL BIOLOGY (3-0) 3 hours credit. A survey of current knowledge of cell structure and function from the microscopic to the molecular level. Prerequisites: BIOL 1441, 1442 and 2343 and one year of chemistry. S.

3339. INTRODUCTION TO EVOLUTION (3-0) 3 hours credit. Processes and mechanisms which cause evolutionary changes in organisms. Prerequisites: BIOL 1441, 1442, 2343 and 3315. F, S.

3341. ENTOMOLOGY (2-3) 3 hours credit. 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. Prerequisites: BIOL 1441, 1442, and 2343. I.

3343. GENERAL MYCOLOGY (2-3) 3 hours credit. A survey of the fungi; their morphology, taxonomy, life cycles, and identification of representative organisms. Prerequisites: BIOL 1441 and 3444. F.

3344. PLANT MORPHOLOGY (2-3) 3 hours credit. The development, comparative structures and life cycles of the vascular plants. Prerequisites: BIOL 1441, 1442 and 2343. I.

3345. HUMAN PHYSIOLOGY (3-0) 3 hours credit. 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. Prerequisites: BIOL 1441, 1442, 3315 or permission of the instructor. I.

3346. HUMAN ANATOMY (2-3) 3 hours credit. 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. Prerequisites: BIOL 1441 and 1442 or permission of the instructor. I.

3347. ENVIRONMENTAL BIOLOGY (3-0) 3 hours credit. Examines major environmental problems that affect biological systems with

an emphasis on problem solving. Prerequisites: BIOL 1441, 1442, 2343, 3315 or permission of the instructor. I.

3348. PLANT SYSTEMATICS (2-3) 3 hours credit. The biology of plants, their classification, general morphology, and environmental relationships. Lab work includes the identification of local and Texas flora. Prerequisites: BIOL 1441, 1442, 2343 and 3327. S.

3351. MICROBIAL METABOLISM (3-0) 3 hours credit. A comparative study of metabolic pathways of the prokaryotes with emphasis on anabolic metabolism, nutrient assimilation, and energy generation. This course is required of all microbiology majors. Prerequisites: BIOL 1441, 3444, CHEM: 1 year of inorganic and 2321 (latter may be taken concurrently) or consent of instructor. I.

3353. PATHOGENIC BACTERIOLOGY (2-3) 3 hours credit. 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, 3444, CHEM 2321 and 2181 and permission of instructor. F, S.

3355. TOXICOLOGY (3-0) 3 hours credit. 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: CHEM 2322 or permission of instructor. I.

3360. PRACTICUM IN ZOO RESEARCH METHODS (3-0) 3 hours credit. A hands-on introduction to research methodologies commonly used to collect behavioral and physiological data in zoos. Students will learn how to develop an ethogram, design data sheets, observe animals and collect data. Data will be summarized, analyzed, interpreted and presented in both written and oral form. Prerequisites: PSYC 2441, PSYC 2442, PSYC 3326 or their equivalent and permission of the instructor. I. Also listed as PSYC 3352; credit will be granted only once.

3371. TEACHING BIOLOGICAL CONCEPTS I (3-0) 3 hours credit. Teaching current concepts in the chemical/molecular basis of life, cellular metabolism/structure/function and genetics. This class cannot be taken for Biology majors credit by students in the Biology or Microbiology B.S. degree programs. It is intended for students pursuing a career in science teaching. Prerequisite: permission of the biology teacher certification advisor and the biology undergraduate advisor. I.

3372. TEACHING BIOLOGICAL CONCEPTS II (3-0) 3 hours credit. Teaching current concepts in animal and plant structure/function including cell, tissue, organ and organismal structure, growth, transport/circulation/gas exchange, nutrition, reproduction, development, endocrinology, and animal neural regulation. This class cannot be taken for Biology majors credit by students in the Biology or Microbiology B.S. degree programs. It is intended for students pursuing a career in science teaching. Prerequisite: permission of the biology teacher certification advisor and the biology undergraduate advisor. I.

3373. TEACHING BIOLOGICAL CONCEPTS III (3-0) 3 hours credit. Teaching current concepts in evolution, ecology and biodiversity including the origin and diversification of life on Earth, and the ecological and behavioral interactions between organisms and their biotic/abiotic environments from an evolutionary perspective. This class cannot be taken for Biology majors credit by students in the Biology or Microbiology B.S. degree programs. It is intended for students pursuing a career in science teaching. Prerequisite: permission of the biology teacher certification advisor and the biology undergraduate advisor. I.

3374. TEACHING BIOLOGICAL CONCEPTS IV (2-2) 3 hours credit. Current concepts in laboratory teaching in biology. This course will cover modern methods of teaching laboratories in biology designed by master biology teachers and various biology publishers. This class cannot be taken for Biology majors credit by students in the Biology or Microbiology B.S. degree programs. It is intended for students pursuing a career in science teaching. Prerequisite: permission of the biology teacher certification advisor and the biology undergraduate advisor. I.

3388. MEDICAL TECHNIQUES (3-0) 3 hours credit. This one-semester course is designed to familiarize students with the latest advances in medical technology. Available for credit for non-biology majors and students in the Biology/Health Care Administration or Biology/Masters in Business Administration programs only. I.

3442. PRINCIPLES OF ANIMAL PHYSIOLOGY (3-3) 4 hours credit. 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. Prerequisites: BIOL 1441, 1442 and 2343. BIOL 3301 recommended. F, S.

3444. GENERAL MICROBIOLOGY (3-3) 4 hours credit. 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. Prerequisites: BIOL 1441 and one year of chemistry. F, S, SS.

3445. METHODS IN MICROBIOLOGY (2-6) 4 hours credit. Advanced instruction in the laboratory techniques required for isolation, cultivation, identification and enumeration of bacteria and their viruses. Formerly listed as BIOL 2459; credit will not be granted for both. Prerequisites: BIOL 1441, 3444 or equivalent. I.

3446. MARINE BIOLOGY (3-4) 4 hours credit. Study of the biota and ecology of marine coastal environments with special emphasis on the Gulf of Mexico. Will be taught in the Maymester with one week of lecture at U.T. Arlington and one week of lecture/laboratory at the Marine Science Institute of the University of Texas in Port Aransas, Texas. Laboratory will include field trips to coastal marine habitats, study of live marine organisms and independent student experiments. Prerequisites: BIOL 1442 and 2343 or permission of instructor. M.

3452. COMPARATIVE VERTEBRATE ANATOMY (3-4) 4 hours credit. A comparative study of the anatomy of the protochordates and the vertebrates. The laboratory includes a detailed study of the shark and the cat. Prerequisites: BIOL 1441, 1442 and 2343. F, S.

3454. GENERAL ZOOLOGY (3-3) 4 hours credit. 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. Prerequisites: BIOL 1441, 1442, or equivalent, or permission of the instructor. I.

3455. INVERTEBRATE ZOOLOGY (3-4) 4 hours credit. The structure, function, and evolution of invertebrate animals. Survey covers all invertebrate phyla with the exception of protozoa and includes the invertebrate chordates. Emphasis is on the major animal phyla. Prerequisites: BIOL 1441, 1442 and 2343. I.

3457. GENERAL ECOLOGY (3-3) 4 hours credit. 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. Prerequisites: BIOL 1441, 1442 and 2343. F, S.

4179, 4279, 4379. DIRECTED STUDY (Variable credit 1-3 hours as arranged). Independent study by individual students in biology under the supervision of a biology faculty member. Topics must be approved by the supervising faculty member. A limit of three hours per semester is imposed and a total of three hours may be counted toward degree requirements. Prerequisites: BIOL 1441, 1442 and permission of the instructor. F, S, SS.

4189, 4289. RESEARCH IN BIOLOGY (Variable credit 1-2 hours as arranged). 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. F, S, SS.

4302. MICROBIAL GENETICS (3-0) 3 hours credit. Consideration of the physical, chemical, and functional nature of genetic processes in micro-organisms. Prerequisites: BIOL 1441 and 3444. S.

4305. ENVIRONMENTAL PHYSIOLOGY (3-0) 3 hours credit. Survey of the physiological adaptations of animals to their environments. Emphasizes physiological mechanisms and evolutionary changes that allow animals to survive under and respond to a variety of environmental conditions. Prerequisite: BIOL 3442 or permission of the instructor. I.

4312. INTRODUCTION TO VIROLOGY (3-0) 3 hours credit. The nature, reproduction, and host cell interactions of viruses and virus-like agents of bacteria, animals, and plants. Prerequisites: BIOL 1441, 3444, and 3315 or 3333. F.

4313. MOLECULAR GENETICS (3-0) 3 hours credit. 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. Prerequisites: 1441, 1442 and 3315. I.

4315. GENERAL ENDOCRINOLOGY (3-0) 3 hours credit. The vertebrate endocrine system. The cellular origin of hormones, their role in physiological regulation, and the mechanism of hormone action. Prerequisites: BIOL 1441, 1442, 3301, and 3315, at least one physiology course, and senior standing. I.

4338. COMMUNITY ECOLOGY (3-0) 3 hours credit. The effects interspecific interactions have on the distribution and abundance of organisms. Prerequisites: BIOL 1441, 1442 and 2343, and three semester hours of ecology. S.

4340. PLANT PHYSIOLOGY (3-0) 3 hours credit. The relationship of plant metabolism to cellular organization and the interaction of environmental, metabolic, and hormonal factors of vegetative growth and reproduction. Prerequisites: BIOL 1441, 1442 and 2343. F (odd years).

4343. PLANT ANATOMY (2-3) 3 hours credit. The internal structure of the existing seed plants, with emphasis on the angiosperms. Prerequisites: BIOL 1441, 1442, 2343 and 3327. F (even years).

4345. POPULATION BIOLOGY (3-0) 3 hours credit. The quantitative study of populations in theory and practice. How populations change in ecological and evolutionary time. Prerequisites: BIOL 1441, 1442, 2343 and MATH 1426 or equivalent. I.

4346. TECHNIQUES IN MICROBIAL AND MOLECULAR GENETICS (1-5) 3 hours credit. 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. Prerequisites: BIOL 1441, 3444 and 4302 (latter may be taken concurrently), or permission of instructor. S.

4348. AQUATIC BIOLOGY (3-0) 3 hours credit. Ecological relationships of organisms in freshwater and marine ecosystems. Prerequisites: BIOL 1441, 1442, 2343 or permission of the instructor. I.

4350. CONSERVATION BIOLOGY (3-0) 3 hours credit. 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. Prerequisites: Genetics (BIOL 3315 or equivalent) or permission of the instructor. I.

4352. FORENSIC BIOLOGY (3-0) 3 hours credit. A comprehensive review of biological principles, applied to forensic science, including sample recovery and handling, analytical techniques, profile matching/exclusion, reporting, and testimony. Prerequisites: BIOL 3315, 3339, CRCJ 3370, and a course in statistics (BIOL 2300 recommended) or permission of the instructor. I.

4354. ENVIRONMENTAL HEALTH (3-0) 3 hours credit. 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. Prerequisites: BIOL 1441, 1442, CHEM 1301, 1302, PHYS 1441, or permission of the environmental biology option advisor. I.

4388. INSTRUCTIONAL TECHNIQUES IN BIOLOGY (0-6) 3 hours credit. 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. F, S, SS.

4393. HONORS SENIOR PROJECT IN BIOLOGY (1-5) 3 hours credit. 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. F, S, SS.

4444. VERTEBRATE NATURAL HISTORY (3-3) 4 hours credit. 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. Prerequisites: BIOL 1441, 1442 and 2343. I.

4445. MICROBIAL STRUCTURE AND FUNCTION (3-3) 4 hours credit. 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. The laboratory focuses on growth of the bacterial cell, single and multiple substrate utilization, and growth kinetics. Prerequisites: BIOL 1441, 1442, 3444 and 3351 or permission of the instructor. This course is reserved for Microbiology majors. F.

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 School of Education section of this catalog for teacher certification requirements and for biology courses recommended for each teaching field option.

The Department of Chemistry and Biochemistry

219 Science Hall • Box 19065 • 817-272-3171 • <http://chemistry.uta.edu>
Academic Advising: 817-272-3171

The Department of Chemistry and Biochemistry offers three 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 accredited, the Bachelor of Science in Biochemistry - American Chemical Society accredited, 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 accredited. 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 accredited. 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 three bachelor's programs will meet the minimum requirements, the department recommends either the Bachelor of Arts in Chemistry or the Bachelor of Science in Biochemistry. 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 before they will be admitted to the Department of Chemistry and Biochemistry as a major.

- Chemistry 1301, 1302, and 1284.
- Six hours of mathematics approved by the department.
- Four 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, fine arts, and philosophy).

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.

Requirements for a Bachelor of Science Degree in Chemistry - American Chemical Society Accredited

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

Six hours of composition.

Literature

Three hours of English or modern language 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 1325, 1426, 2325, 2326, 3318.

*A student not qualified to take MATH 1325 must complete the prerequisites for the course. This may add three to six hours to the total required for the degree.

Computer Science*

One course chosen from CSE 1301, 1306, 1310, or GEOL 1491.

*To fulfill the University requirement of competency in computer usage, a student must take CSE 1301 or GEOL 1491 or obtain a passing score on the University proficiency exam.

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 1284, 1301, 1302, 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

128 hours, of which at least 36 must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Suggested Course Sequence**Freshman Year**

First Semester: CHEM 1301; MATH 1325; BIOL 1441 or GEOL 1445; ENGL 1301; CSE 1301 or 1306 or 1310 or GEOL 1491—Total Credit 16 or 17 hours.

Second Semester: CHEM 1302; CHEM 1284; MATH 1426; Biology, 4 hours, or GEOL 1446; ENGL 1302—Total Credit 16 hours.

Sophomore Year

First Semester: CHEM 2321; CHEM 2181; MATH 2325; PHYS 1443; Fine Arts, 3 hours; Literature, 3 hours—Total Credit 17 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; Physics (3000/4000), 3 hours; POLS 2311; Liberal Arts Elective, 3 hours—Total Credit 16 hours.

Second Semester: CHEM 3322; CHEM 3182; CHEM 3317; POLS 2312; Social/Cultural Studies, 3 hours; Elective, 3 hours—Total Credit 16 hours.

Senior Year

First Semester: CHEM 4311; CHEM 4318; CHEM 4461; CHEM 4101; HIST 1311; Elective, 2 hours—Total Credit 16 hours.

Second Semester: CHEM 4346; CHEM 3307; HIST 1312; Electives, 6 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, other health-related professions, and for students who desire certification with a teaching field in chemistry.

English

Six hours of composition.

Literature

Three hours of English or modern language 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 Language

14 hours in a single modern 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 1323 or 1325, 1426, 2325.

*A student not qualified to take MATH 1323 or 1325 must complete the prerequisites for the course. This may add three to six hours to the total required for the degree.

Computer Science*

One course chosen from CSE 1301, 1306, 1310, or GEOL 1491.

*To fulfill the University requirement of competency in computer usage, a student must take CSE 1301 or GEOL 1491 or obtain a passing score on the University proficiency exam.

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 3452 are recommended plus three additional hours.

Electives

Sufficient to complete the total hours required for the degree.

Major

CHEM 1284, 1301, 1302, 2181, 2182, 2321, 2322, 2335, 2285, 3301, 3317, 4101, 4311, and at least two hours from 3307, 3310, 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, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Suggested Course Sequence

Freshman Year

First Semester: CHEM 1301; MATH 1325; BIOL 1441 or GEOL 1445; ENGL 1301; CSE 1301 or 1306 or 1310 or GEOL 1491—Total Credit 16 or 17 hours.

Second Semester: CHEM 1302; CHEM 1284; MATH 1426; Biology, 4 hours, or GEOL 1446; ENGL 1302—Total Credit 16 hours.

Sophomore Year

First Semester: CHEM 2321; CHEM 2181; MATH 2325; 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 3301; Liberal Arts Elective, 3 hours; Modern Language, 4 hours; POLS 2311; HIST 1311—Total Credit 16 hours.

Second Semester: CHEM 3317; Modern Language, 4 hours; POLS 2312; HIST 1312; Elective, 3 hours—Total Credit 16 hours.

Senior Year

First Semester: CHEM 4311; CHEM 4101; Social/Cultural Studies, 3 hours; Modern Language or Liberal Arts Cluster Course, 3 hours; Electives, 6 hours—Total Credit 16 hours.

Second Semester: Chemistry (3000/4000), 3 hours; Modern Language or Liberal Arts Cluster Course, 3 hours; Electives, 8 hours—Total Credit 14 hours.

Requirements for a Bachelor of Science Degree in Biochemistry - American Chemical Society Accredited

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 pre dental students and for training in allied health sciences.

English

Six hours of composition.

Literature

Three hours of English or modern language 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 or 1325, 1426, 2325, 2326.

*A student not qualified to take MATH 1323 or 1325 must complete the prerequisites for the course. This may add three to six hours to the total required for the degree.

Computer Science*

One course chosen from CSE 1301, 1306, 1310, or GEOL 1491.

*To fulfill the University requirement of competency in computer usage, a student must take CSE 1301 or GEOL 1491 or obtain a passing score on the University proficiency exam.

Other Natural Science

PHYS 1443, 1444; BIOL 1441, 3444, and 3315*.

*In addition, BIOL 4313 must be taken if CHEM 4316 is omitted.

Electives

Sufficient to complete the total hours required for the degree.

Major

CHEM 1284, 1301, 1302, 2181, 2182, 2321, 2322, 2335, 2285, 3181, 3182, 3321, 3322, 4242, 4311, 4312, 4313, 4314, 4316*, 3317 or 4318, 4346, 4461.

*BIOL 4313 may be substituted for CHEM 4316.

In addition, all students are strongly encouraged to enroll in undergraduate research.

Total

128 hours, of which at least 36 must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Suggested Course Sequence

Freshman Year

First Semester: CHEM 1301; MATH 1325; BIOL 1441; ENGL 1301; CSE 1301 or 1306 or 1310 or GEOL 1491—Total Credit 16 or 17 hours.

Second Semester: CHEM 1302; CHEM 1284; MATH 1426; ENGL 1302; Fine Arts, 3 hours—Total Credit 15 hours.

Sophomore Year

First Semester: CHEM 2321; CHEM 2181; MATH 2325; PHYS 1443; Liberal Arts Elective, 3 hours; Literature, 3 hours—Total Credit 17 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; CHEM 4311; BIOL 3444; HIST 1311; Fine Arts, 3 hours—Total Credit 17 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; CHEM 4318; CHEM 4461; POLS 2311; Electives, 3 hours—Total Credit 16 hours.

Second Semester: CHEM 4314; CHEM 4316 or BIOL 4313; CHEM 4346; POLS 2312; Social/Cultural Studies, 3 hours; Electives, 1 hour—Total Credit 16 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

Six hours of composition.

Literature

Three hours of English or modern language 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 or 1325, 1426, 2325, 2326, 3318.

*A student not qualified to take MATH 1323 or 1325 must complete the prerequisites for the course. This may add three to six hours to the total required for the degree.

Computer Science*

One course chosen from CSE 1301, 1306, 1310, or GEOL 1491.

*To fulfill the University requirement of competency in computer usage a student must take CSE 1301 or GEOL 1491 or obtain a passing score on the University proficiency exam.

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 1284, 1301, 1302, 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, and exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Suggested Course Sequence

Freshman Year

First Semester: CHEM 1301; MATH 1325; BIOL 1441 or GEOL 1445; ENGL 1301; CSE 1301 or 1306 or 1310 or GEOL 1491—Total Credit 16 or 17 hours.

Second Semester: CHEM 1302; CHEM 1284; MATH 1426; Biology, 4 hours, or GEOL 1446; ENGL 1302—Total Credit 16 hours.

Sophomore Year

First Semester: CHEM 2321; CHEM 2181; MATH 2325; PHYS 1443; Liberal Arts Elective, 3 hours; Literature, 3 hours—Total Credit 17 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; 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.

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 School 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 (GEOL 1491 or 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 (required for the Bachelor of Science degree in Biochemistry).

Students should refer to the specific degree plans and the chemistry undergraduate advisor for details regarding these requirements.

Department of Chemistry and Biochemistry Faculty

Chair

Professor Elsenbaumer

Professors

Bellion, Marynick, MacDonnell, McDowell,

Pomerantz, Rajeshwar, Schelly, Timmons

Research Professor

Awasthi

Associate Professors

Dias, Kinsel

Assistant Professors

Gluick, Lovely

Research Assistant Professor

Singhal

Lecturers

Hale, Rogers

Chemistry (CHEM)

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

1284. GENERAL CHEMISTRY LABORATORY (1-4) 2 hours credit.

A laboratory course with experiments designed to illustrate the fundamental principles covered in CHEM 1301 and 1302, including experiments related to thermodynamics, kinetics, acid-base, synthesis, quantitative and qualitative analysis. The scientific method is developed through experimental design, laboratory technique, and data acquisition, manipulation, and graphical analysis. Concurrent registration in CHEM 1284 and CHEM 1302 is advisable. Prerequisite: CHEM 1302 or concurrent registration. F, S, SS.

1300. INTRODUCTORY CHEMICAL PRINCIPLES (3-0) 3 hours credit.

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 1301/1302 sequence at a later date. CHEM 1300 cannot replace CHEM 1301 or 1302 for major credit toward a degree in chemistry. Prerequisite: MATH 1302 or equivalent. F, S.

1301. GENERAL CHEMISTRY (3-0) 3 hours credit (CHEM 1411).

The fundamentals of atomic structure, chemical bonding, the periodic table, nomenclature, kinetic theory, gas laws, chemical equations, and solutions. Students who have not had high school chemistry are advised to take CHEM 1300 first. Prerequisite: MATH 1302 or equivalent. F, S, SS.

1302. GENERAL CHEMISTRY (3-0) 3 hours credit (CHEM 1412).

Study of advanced atomic structure and bonding concepts, acid-base theory, kinetics and equilibria, thermodynamics, electrochemistry, the chemistry of some elements. Prerequisite: CHEM 1301 or the equivalent, which may include satisfactory grade on the Advanced Standing Examination offered through the Office of Measurement and Testing Services. F, S, SS.

1445. CHEMISTRY FOR NON-SCIENCE MAJORS (3-3) 4 hours credit (CHEM 1405).

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 1301, 1302, 1284 requirement in any degree program. F.

1446. CHEMISTRY FOR NON-SCIENCE MAJORS (3-3) 4 hours credit (CHEM 1408).

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. CHEM 1445, 1446 cannot be used to fulfill the 1301, 1302, 1284 requirement in any degree program. S.

1451. GENERAL AND BIOLOGICAL CHEMISTRY (3-3) 4 hours credit.

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 1302 or equivalent. S.

1463. FORENSIC CHEMISTRY (3-3) 4 hours credit. The basic principles of general, organic, and biochemistry, with emphasis on the descriptive chemistry of substances important in forensic analysis. The laboratory will emphasize instrumental techniques.

2180. RESEARCH IN CHEMISTRY (0-4) 1 hour credit. 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 of credit on a pass/fail basis. F, S, SS.

2181. ORGANIC CHEMISTRY LABORATORY (0-4) 1 hour credit. Experiments which illustrate laboratory techniques, theoretical concepts, and synthesis. Prerequisites: CHEM 1284 and 1302. Co-requisite: CHEM 2321. If CHEM 2321 is being taken concurrently with 2181 and the student withdraws from 2321 before the midsemester date, he/she must also withdraw from 2181. F, S, SS.

2182. ORGANIC CHEMISTRY LABORATORY (0-4) 1 hour credit. Experiments which will include syntheses, characterization of unknown substances, and use of the chemical literature. Prerequisite: CHEM 2181. Co-requisite: CHEM 2322. If CHEM 2322 is being taken concurrently with 2182 and the student withdraws from 2322 before the midsemester date, he/she must also withdraw from 2182. F, S, SS.

2285. QUANTITATIVE CHEMISTRY LABORATORY (0-8) 2 hours credit. An introduction to computers for the acquisition and statistical analysis of data. Laboratory exercises involving basic titrimetric, spectrophotometric and chromatographic methods. Prerequisites: CHEM 1302 and 1284 or equivalent, three hours of college algebra or equivalent, and credit for or registration in CHEM 2335. S, SS.

2321. ORGANIC CHEMISTRY (3-0) 3 hours credit (CHEM 2423). The fundamentals of molecular structure, stereochemistry, and the reactions of aliphatic hydrocarbons. Electronic theory, synthetic methods, and mechanisms. Prerequisite: CHEM 1302. F, S, SS.

2322. ORGANIC CHEMISTRY (3-0) 3 hours credit (CHEM 2425). 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. F, S, SS.

2335. QUANTITATIVE CHEMISTRY (3-0) 3 hours credit. Basic methods of error analysis, simple and advanced methods for the solution of complex equilibria, fundamentals of titrimetric, spectrophotometric and chromatographic instrumental analysis. Prerequisites: CHEM 1302 and 1284 or equivalent, three hours of college algebra or equivalent, and credit for or registration in CHEM 2285. S, SS.

2380. UNDERGRADUATE RESEARCH (0-9) 3 hours credit. 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. F, S, SS.

3181. PHYSICAL CHEMISTRY LABORATORY (0-4) 1 hour credit. The physical and thermodynamic properties of substances, experimentally determined. Prerequisites: CHEM 2285, CHEM 2335 and credit for or registration in CHEM 3321. F.

3182. PHYSICAL CHEMISTRY LABORATORY (0-4) 1 hour credit. Experiments in kinetics, equilibria, spectroscopy, and electrochemistry. Modern instrumental techniques. Prerequisites: CHEM 3181 and credit for or registration in CHEM 3322. S.

3301. INTRODUCTION TO PHYSICAL CHEMISTRY (3-0) 3 hours credit. Solutions, equilibria, thermodynamics, kinetics, electrochemistry, and colloids. Required for B.A. chemistry majors, and recommended for premedical and pre dental students and for students de-

siring chemistry as a second teaching field. Prerequisites: CHEM 1302 and 1284. Credit cannot be granted for both CHEM 3301 and 3321. F.

Science 3301 may be used to satisfy three hours in any science of the 12 required for the Bachelor of Arts degree. It may be used only as a free elective by majors in the College of Science. See Science courses listed on the page preceding the Department of Biology material.

3307. INTRODUCTION TO POLYMER CHEMISTRY (3-0) 3 hours credit. 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 or permission of instructor. S.

3310. AIR POLLUTION CHEMISTRY (3-0) 3 hours credit. Air pollutants and their general chemical and ecological effects. Measuring, monitoring, and analysis techniques and pollution sources, control, and economics. Prerequisites: 1302 and 1284 or equivalent. F.

3317. INORGANIC CHEMISTRY (3-0) 3 hours credit. 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. Prerequisites: CHEM 2322 or concurrent enrollment in CHEM 2322. S.

3321. PHYSICAL CHEMISTRY (3-0) 3 hours credit. Solids, liquids, and gases, thermo-chemistry, thermodynamics, solutions, equilibria, and electrochemistry. Prerequisites: CHEM 2335, eight hours of physics, and MATH 2326. Concurrent enrollment in MATH 3318 is encouraged. F.

3322. PHYSICAL CHEMISTRY (3-0) 3 hours credit. Kinetics, quantum theory, molecular structure, and statistical thermodynamics. Prerequisite: CHEM 3321. S.

4101. SEMINAR IN CHEMISTRY (1-0) 1 hour credit. 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. F.

4180. QUANTUM CHEMISTRY LABORATORY (0-4) 1 hour credit. Molecular modeling. Application of various computational techniques to chemical problems, including determination of molecular geometry, conformational analysis, and molecular energetics. Prerequisite: concurrent enrollment in CHEM 4303.

4242. LABORATORY TECHNIQUES IN BIOCHEMISTRY (1-3) 2 hours credit. Designed to introduce the student to biochemical laboratory methods; a practical approach to the properties of carbohydrates, proteins, enzymes, and nucleotides. Prerequisite: CHEM 4311. S.

4303. QUANTUM CHEMISTRY (3-0) 3 hours credit. 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 (Hückel, Extended Hückel, semi-empirical, ab initio, etc.). Related methods, such as force-field approaches and molecular dynamics, will be discussed.

4311. GENERAL BIOCHEMISTRY (3-0) 3 hours credit. 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. F, SS.

4312. GENERAL BIOCHEMISTRY (3-0) 3 hours credit. 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 or equivalent. S.

4313. METABOLISM AND REGULATION (3-0) 3 hours credit. 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.

4314. ENZYMOLOGY (3-0) 3 hours credit. A comprehensive study of enzymes including structures, reaction mechanisms, regulation, and kinetics. Prerequisite: CHEM 4311.

4316. BIOCHEMICAL GENETICS (3-0) 3 hours credit. 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.

4318. INORGANIC CHEMISTRY (3-0) 3 hours credit. 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. F.

4346. ADVANCED SYNTHETIC METHODS (1-6) 3 hours credit. Methods and techniques for the synthesis and characterization of organic, inorganic, and organometallic compounds. Prerequisites: CHEM 2182, 2322, and 3317 or 4318. S.

4380. UNDERGRADUATE RESEARCH (0-9) 3 hours credit. 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. Prerequisites: written permission of the instructor and a minimum grade point average of 2.5. F, S, SS.

4381. HONORS RESEARCH (0-9) 3 hours credit. 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. Prerequisites: CHEM 2322, CHEM 2182, and admission to the University Honors College. F, S, SS.

4385. INSTRUCTIONAL TECHNIQUES IN CHEMISTRY (0-6) 3 hours credit. 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. F, S, SS.

4387. UNIVERSITY-INDUSTRY CHEMISTRY COOPERATIVE (0-9) 3 hours credit. 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. F, S, SS.

4392. ADVANCED TOPICS IN CHEMISTRY (3-0) 3 hours credit. Topics arranged on an individual basis. May be repeated for credit as the topic varies. Prerequisite: permission of the instructor.

4191, 4291, 4391. READINGS IN CHEMISTRY (Variable credit from 1 to 3 hours as arranged). 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 departmental chair. Graded pass/fail only.

4461. INSTRUMENTAL ANALYSIS (2-8) 4 hours credit. The principles involved in the operation of modern analytical instruments and the laboratory use of such instruments. Prerequisites: CHEM 3182 and 3322. F.

The Department of Geology

107 Geoscience Bldg. • Box 19049 • 817-272-2987 • www.uta.edu/geology
Academic Advising: 107 Geoscience Bldg. • 817-272-2987

The Department of Geology 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 Systems History)
2445 (Mineralogy)
2446 (Petrology)
3491 (Data Analysis)
3441 (Paleontology)
3442 (Sedimentology)
3443 (Structure)
3387 & 3388 (Field Geology)
4443, 4310, 4409 or 4408

Six hours of 4000 level courses approved by the advisor.

Requirements for the Minor

18 hours in Biology, Chemistry, Mathematics, Physics, Civil Engineering, or Computer Science. Six hours must be upper division

(3000/4000) courses approved by the advisor. A double minor requires 24 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 1301, 1302, and 1284; PHYS 1441 and 1442.

Mathematics

1426 (Calculus I) and 2325 (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

GEOL 1491 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. Credit hours in EXSA/DNCA, ROTC, and Marching Band are excluded from these totals.

Environmental Science Option

Geology Requirements for the Major

1425 (Earth Systems)
2411 (Global Environmental Issues)
2445 (Mineralogy)
2446 (Petrology)
3305 and 3185 or 4405 (Meteorology)
3491 (Data Analysis)
3442 (Sedimentology)
3443 (Structure)
3387 and 3388 (Field Geology)
4320 (Hydrology)
4408 (Environmental Geochemistry and Geophysics)
4330 (Geographic Information Systems)

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 24 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 1301, 1302, and 1284; PHYS 1441 and 1442.

Mathematics

1426 (Calculus I) and 2325 (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

GEOL 1491 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. Credit hours in EXSA/DNCA, ROTC, and Marching Band are excluded from these totals.

Engineering Geology Option**Geology Requirements for the Major**

1425 (Earth Systems)
2404 (Geologic Hazards)
2445 (Mineralogy)
2446 (Petrology)
3442 (Sedimentology)
3443 (Structure)
3387 and 3388 (Field Geology)
4320 (Hydrology)
4408 (Environmental Geochemistry and Geophysics)
4330 (Geographic Information Systems)

Requirements for the Minor

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.

Natural Science other than Geology

A year of Chemistry and Physics that includes CHEM 1301, 1302, and 1284; PHYS 1443 and 1444.

Mathematics

1426 (Calculus I) and 2325 (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

GEOL 1491 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. Credit hours in EXSA/DNCA, ROTC, and Marching Band are excluded from these totals.

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, 1491; HIST 1311; EXSA or ROTC or Marching Band—18 hours.

Second Semester: ENGL 1302; MATH 1426; CHEM 1301; GEOL 1426; HIST 1312; EXSA or ROTC—18 hours.

Sophomore Year

First Semester: English (literature), 3 hours; MATH 2325; CHEM 1302; CHEM 1284; GEOL 2445; EXSA or ROTC or Marching Band—16 hours.

Second Semester: BIOL 1441; POLS 2311; GEOL 2446; Social Science, 3 hours; EXSA or ROTC—15 hours.

Junior Year

First Semester: PHYS 1441 or 1443; GEOL 3441 and 3491; POLS 2312—15 hours.

Second Semester: GEOL 3442 or 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. All Bachelor of Arts degrees require 14 hours of modern language/cultural courses. 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 School of Education.

Geology Requirements for the Major

1425 (Earth Systems)
1426 (Earth Systems History)
2445 (Mineralogy)
2446 (Petrology)
3491 (Data Analysis)
3441 (Paleontology)
3442 (Sedimentology)
3443 (Structure)

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 1284, 1301 and 1302; PHYS 1441 and 1442.

Mathematics

1324 (or 1302 and 1303), and 1308 or 3316.

Computer Literacy

GEOL 1491 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. Credit hours in EXSA/DNCA, ROTC, and Marching Band are excluded from these totals.

Geographic Information Systems Option**Geology Requirements for the Major**

1425 (Earth Systems)
 1426 (Earth Systems History) or 2406 (Geologic Time)
 2445 (Mineralogy)
 2446 (Petrology)
 3441 (Paleontology)
 3442 (Sedimentology)
 3443 (Structure)
 4330 (Understanding GIS)
 4331 (Analysis of Spatial Data)
 4332 (Geographic Positioning System)
 4333 (Remote Sensing)

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 1301, 1302, and 1284; PHYS 1441 and 1442.

Mathematics

1324 (or 1302 and 1303), and 1308 or 3316.

Computer Literacy

GEOL 1491 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. Credit hours in EXSA/DNCA, ROTC, and Marching Band are excluded from these totals.

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, 1491; HIST 1311; EXSA or ROTC or Marching Band—18 hours.

Second Semester: ENGL 1302; GEOL 1426; CHEM 1301; HIST 1312; POLS 2311; EXSA or ROTC—17 hours.

Sophomore Year

First Semester: English (literature), 3 hours; FORL 1441; GEOL 2445; POLS 2312; EXSA or ROTC or Marching Band—15 hours.

Second Semester: Social Science, 3 hours; FORL 1442; BIOL 1441; GEOL 2446; EXSA or ROTC—16 hours.

Junior Year

First Semester: FORL Elective, 3 hours; GEOL 3441; MATH 3316; PHYS 1441; Minor, 3 hours—17 hours.

Second Semester: GEOL 3442; GEOL 3443; FORL Elective, 3 hours; Minor, 3 hours; PHYS 1442—18 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; GEOL 3491—16 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)
 4332 (Geographic Positioning System)
 4333 (Analysis of Remotely Sensed Data)
 4334 (Geographic Data Analysis Project)

Department of Geology Faculty**Chair**

Professor Wickham

Professors

Balsam, Crick, M. Nestell, Reaser, Schieber

Associate Professor

Scotese

Adjunct Professor

Burkart, Damuth, Ellwood, Krinsley, Shanmugam

Adjunct Associate Professors

Deaton, Eisenstadt, G. Nestell

Adjunct Assistant Professors

Standlee, Van Waasbergen

Geology (GEOL)**Designation of Semester in Which Courses Are Offered**

To assist students in planning their sequence of courses, most geology courses carry an indication as to when they are usually taught. However, the Department of Geology reserves the right to change the semester in which any course is taught in accordance with unforeseen conditions.

Designations are: F - Fall, S - Spring, SSI - First Summer Session, SSII - Second Summer Session, I - Irregular.

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

1135. GEOLOGICAL LABORATORY (0-3) 1 hour credit. Experiments and exercises related to geological principles and problems. Prerequisite: permission of department.

1425. EARTH SYSTEMS (3-1) 4 hours credit. An integrated study of the earth, emphasizing interactions between plate tectonics, the atmosphere, the oceans, the biosphere, and human activity.

1426. EARTH HISTORY (3-1) 4 hours credit. History of the earth and evolution of life emphasizing the co-evolution of the atmosphere,

oceans, and biosphere. Prerequisite: GEOL 1425 or permission of instructor.

1491. COMPUTER LITERACY (3-1) 4 hours credit. This course is designed to develop and perfect skills in all aspects of computer use for an undergraduate education through direct interaction with University facilities and integrated software. Topics include word processing, spreadsheet, database, draw and paint graphics, slide presentations, desktop publishing, electronic mail, Internet services, and online services. (Skills are developed through the completion of weekly projects). Assumes no knowledge of computers; satisfies the College of Science requirement for computer literacy. F, S.

2401. WEATHER AND CLIMATE (3-1) 4 hours credit. Processes that control weather and climate. Methods of describing and forecasting weather. Predicting severe weather, tornadoes, hurricanes, and floods. Also listed as GEOG 2401; credit will not be given for both GEOL 2401 and GEOG 2401. Prerequisites: GEOL 1425. This course replaces GEOL 1455; credit will not be granted for both.

2402. GEOSCIENCE AND GENESIS (3-1) 4 hours credit. 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. Prerequisite: GEOL 1425 or permission of instructor.

2404. GEOLOGIC HAZARDS (3-1) 4 hours credit. Processes producing earthquakes, floods, eruptions and landslides, and their effect on people. Prerequisite: GEOL 1425. This course replaces GEOL 3304; credit will not be granted for both.

2405. HISTORY OF LIFE AND GEOLOGIC TIME (3-1) 4 hours credit. The succession of life as shown by the fossil record and explained by evolution. Methods and reliability of determining time and sequence of events. Prerequisite: GEOL 1425. This course replaces GEOL 3306; credit will not be granted for both.

2406. NATURAL RESOURCES (3-1) 4 hours credit. Origin, occurrence and exploitation of natural resources such as minerals, energy and building materials. Prerequisite: GEOL 1425. This course replaces GEOL 3307; credit will not be granted for both.

2408. GEOLOGY OF NATIONAL PARKS AND MONUMENTS (3-1) 4 hours credit. Geological and geographical evolution of national parks and monuments. Distance learning sections only. Prerequisite: GEOL 1425. This course replaces GEOL 3308; credit will not be granted for both.

2409. THE EARTH'S LANDFORMS (3-1) 4 hours credit. The Earth's surface processes which control landforms. Formation and classification of soils and the effects of human activity on landscape evolution. Also listed as GEOG 2409; credit will not be given for both GEOL 2409 and GEOG 2409. Prerequisite: GEOL 1425. This course replaces GEOL 3309; credit will not be granted for both.

2410. PLANETARY GEOLOGY (3-1) 4 hours credit. 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. Prerequisite: GEOL 1425. This course replaces GEOL 3310; credit will not be granted for both.

2411. GLOBAL ENVIRONMENTAL ISSUES (3-1) 4 hours credit. Global environmental challenges confronting humanity such as pollution, depletion of natural resources, ecosystem deterioration, food production and population growth. Prerequisite: GEOL 1425. This course replaces GEOL 3311; credit will not be granted for both.

2412. ENVIRONMENTAL GEOLOGY OF THE DALLAS/FORT WORTH METROPLEX (3-1) 4 hours credit. Introduction to geo-

logic features in the Metroplex with emphasis on environmental problems such as pollution, expansive soils, flooding, and earthflows. Field trip is required. Prerequisites: GEOL 1425. This course replaces GEOL 3312; credit will not be granted for both.

2445. MINERALOGY (3-4) 4 hours credit (GEOL 2409). Elementary crystallography, mineral identification, mineral occurrences, mineral usage, and an introduction to optical mineralogy. Prerequisite: CHEM 1301. F.

2446. IGNEOUS AND METAMORPHIC PETROLOGY AND PETROGRAPHY (3-2) 4 hours credit. 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. S.

3100. GEOSCIENCE PROFESSIONAL ORIENTATION (1-0) 1 hour credit. 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. No prerequisites.

3184. OCEANOGRAPHY LABORATORY (0-2) 1 hour credit. Laboratory for students seeking elementary certification in life-earth (Option III). Prerequisites: concurrent registration in GEOL 3301 or permission of instructor. I.

3185. METEOROLOGY LABORATORY (0-2) 1 hour credit. Laboratory for students seeking secondary certification in life-earth or earth science programs. Prerequisite: concurrent registration in GEOL 3305 or permission of instructor. I.

3301. INTRODUCTION TO OCEANOGRAPHY (3-0) 3 hours credit. The many aspects of oceanography with special emphasis on physical oceanography and marine geology. Prerequisites: six hours of science and junior standing, or permission of the instructor. I.

3305. INTRODUCTION TO METEOROLOGY AND CLIMATOLOGY (3-0) 3 hours credit. Dynamics of the atmosphere: examination of processes that control weather; long-term climatic cycles and geological record of global climate change; atmospheric pollution and its effects on climate. Prerequisites: six hours of science and junior standing, or permission of the instructor. Also listed as GEOG 3305. Credit will be granted for only one of GEOL 3305, GEOG 3305, and GEOL 4405. I.

3313. OUTDOOR GEOLOGY (0-3) 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, 1435 or permission of instructor. Special fee covering the cost of transportation, food and lodging.

3387. FIELD GEOLOGY I. 3 hours credit. Stratigraphic and structural mapping and analysis of data collected in the field. Taught for three weeks only in the summer session. Prerequisites: GEOL 2446, 3442, 3443. Special fee covering the cost of transportation, room and board while in the field. SSI.

3388. FIELD GEOLOGY II. (3-0) 3 hours credit. 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. Prerequisites: GEOL 2446, 3442, 3443, and 3387. Special fee covering the cost of transportation, room and board while in the field. SSI.

3402. DINOSAURS (3-1) 4 hours credit. Review of the evolution, environment and fossil record of dinosaurs and other extinct vertebrates. Field trip required. Prerequisites: GEOL 1425. This course replaces GEOL 3302; credit will not be granted for both.

3403. VOLCANOES AND VOLCANIC PROCESSES (3-1) 4 hours credit. 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. Prerequisites: GEOL 1425. This course replaces GEOL 3303; credit will not be granted for both.

3441. PALEONTOLOGY (3-3) 4 hours credit. Biology, morphology, and taxonomy of fossil invertebrates. Prerequisites: GEOL 1436; BIOL 1442 and 3455. F.

3442. STRATIGRAPHY AND SEDIMENTARY PETROLOGY AND PETROGRAPHY (3-3) 4 hours credit. An introduction to the description, origin, and historical interpretation of stratified rocks. Prerequisites: GEOL 2446 (or concurrent enrollment) and 3441 or permission of the instructor. S.

3443. STRUCTURAL GEOLOGY (3-3) 4 hours credit. The genesis, classification, and description of structural features resulting from deformation of the earth's crust. Prerequisites: GEOL 2446, 3442 (or concurrent enrollment), and a course in physics, or permission of the instructor. F.

3491. DATA ANALYSIS AND STATISTICS IN THE SCIENCES (3-3) 4 hours credit. This course is designed to introduce science students to a variety of programs and techniques available for statistical analysis, display of data, and presentation of data common to the physical sciences in commercial and educational settings. Topics include: data collection, hypothesis testing, basic parametric statistics (through regression), nonparametric testing, time series analysis, and multivariate techniques (both for classifying and confirming hypotheses). Prerequisites: GEOL 1491, MATH 1423 or equivalent, six hours of science, and junior standing. I.

4189. PROBLEMS IN GEOLOGY (0-3) 1 hour credit. 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: senior standing and permission of the instructor. F, S, SSI, SSII.

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.

4289. PROBLEMS IN GEOLOGY (0-6) 2 hours credit. 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. Prerequisites: senior standing in geology and permission of the instructor. F, S, SSI, SSII.

4302. PLATE TECTONICS (3-0) 3 hours credit. 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. Prerequisites: GEOL 1491 and 3443. I.

4303. GEOARCHAEOLOGY (3-0) 3 hours credit. Geological, geochemical and geophysical techniques employed in the study of archaeological sites and materials. Also listed as ANTH 4303. Prerequisites: GEOL 1435 or ANTH 2339 and junior standing. S.

4305. SELECTED TOPICS IN GEOLOGY (3-0) 3 hours credit. 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. I.

4310. INTRODUCTION TO GEOCHEMISTRY (3-0) 3 hours credit. 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 3442 (or concurrent enrollment), or CHEM 3322, or permission of the instructor. S.

4315. ECONOMIC GEOLOGY-MINERAL DEPOSITS (3-0) 3 hours credit. The occurrences, origin, classification, and utilization of metallic and non-metallic mineral deposits. Prerequisite: GEOL 3443. S.

4320. HYDROGEOLOGY (3-0) 3 hours credit. 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. Prerequisites: GEOL 3443 and MATH 2325 or permission of the instructor. I.

4325. PALEOCLIMATOLOGY (3-0) 3 hours credit. The physical basis of the climate system, climatic fluctuations and change, records of past climates, and the use of models in studying past climates. Specific examples from earth history will be included. Prerequisites: GEOL 1446 (or GEOL 1435 or 1465), and MATH 1426, and senior standing, or permission of the instructor. I.

4330. UNDERSTANDING GEOGRAPHIC INFORMATION SYSTEMS (2-1) 3 hours credit. A practical introduction to GIS technology and methods of creating, maintaining and displaying spatial data using the ArcView software. Prerequisite: GEOL 1425, junior standing. This course replaces GEOL 4352; credit will not be granted for both.

4331. ANALYSIS OF SPATIAL DATA (2-1) 3 hours credit. Analyzing spatial data using ArcInfo; topological and object-based data structures; surface analysis and modeling; 3-D visualization and viewscapes; spatial statistics and data quality management. Prerequisite: GEOL 4330; MATH 3316.

4332. GLOBAL POSITIONING SYSTEMS (2-1) 3 hours credit. Local and global coordinate systems; the GPS satellite constellation; GPS signal characteristics; static and kinematic positioning; error analysis; surveying techniques; operation of hand-held GPS receivers. Prerequisite: GEOL 1425, junior standing.

4333. ACQUISITION AND ANALYSIS OF REMOTELY SENSED DATA (2-1) 3 hours credit. Interaction of the electromagnetic spectrum with earth's surface; satellite data acquisition; image processing, analysis and interpretation; integration with other data using GIS. Prerequisite: GEOL 1425, junior standing.

4334. GEOGRAPHIC DATA ANALYSIS (1-2) 3 hours credit. Acquisition, processing and analysis of a set of spatial data selected by the student with approval of an advisor. A written report of the results is required. Prerequisite: GEOL 4330, 4331, 4332, 4333.

4342. THE CORRELATION OF SEDIMENTARY ROCKS (2-3) 3 hours credit. The methods used to differentiate and correlate intra- and inter-basinal rock units. Graphic correlation, isotopic techniques, magnetic properties, seismic stratigraphy, significant macro and micro fossil groups during the Phanerozoic. Prerequisites: GEOL 3441, 3442, and 3491 (or concurrent enrollment) or permission of instructor. S.

4345. OPTICAL MINERALOGY (2-4) 3 hours credit. Principles of optical crystallography and mineral identification. The relationships of optical characteristics to the structure and chemistry of minerals. Prerequisite: GEOL 2445. F.

4346. BASIN ANALYSIS (3-0) 3 hours credit. Formation of sedimentary basins and evaluation of their economic potential in context of plate tectonics; paleogeography and paleoclimatology. I.

4350. ECONOMIC GEOLOGY-ENERGY RESOURCES (2-3) 3 hours credit. Provides a background in energy resource exploration, development, and evaluation, with special emphasis on petroleum, natural gas, and coal resources. Prerequisite: GEOL 3443. I.

4353. VOLCANOLOGY (3-0) 3 hours credit. 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. 3442. I.

4360. GEOLOGICAL PROCESSES OF OCEANS (3-0) 3 hours credit. 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 or permission of instructor. It is recommended that GEOL 3184 be taken concurrently. I.

4393. HONORS THESIS/SENIOR PROJECT (3-0) 3 hours credit. 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. I.

4402. COMPUTER MODELING IN EARTH SCIENCE (3-3) 4 hours credit. Computer modeling and visualization techniques

applied to the earth sciences, including structural geology, stratigraphy, geophysics, climatology, paleontology, and environmental geology. Prerequisite: GEOL 3443. I.

4405. METEOROLOGY AND CLIMATOLOGY (3-3) 4 hours credit. For science and engineering majors. A quantitative approach to the study of the structure, energy, and motions of the atmosphere. Prerequisite: MATH 2325, six hours of science or engineering, junior standing, or permission of instructor. Credit will be granted for only one of GEOL 3305, GEOG 3305, and GEOL 4405. I.

4408. ENVIRONMENTAL GEOCHEMISTRY AND GEOPHYSICS (3-3) 4 hours credit. The geochemical and geophysical techniques applied to selected problems in environmental geology. Prerequisites: GEOL 2445 and 3443, CHEM 1301, and PHYS 1442 (or 1444 or 1448), or permission of instructor. F.

4409. APPLIED GEOPHYSICS (3-3) 4 hours credit. Geophysical techniques including seismology, seismic stratigraphy, gravity, magnetic and electrical methods used to investigate selected geological problems. Prerequisites: GEOL 1491, 3443 or 3491, 3442. I.

4443. SEDIMENTOLOGY (3-1) 4 hours credit. 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. Prerequisites: GEOL 3442.

4446. ADVANCED IGNEOUS AND METAMORPHIC PETROLOGY (3-3) 4 hours credit. Hand specimen and thin section study of igneous and metamorphic rocks. Emphasis on theoretical principles governing the origin and evolution of crustal rocks. Prerequisite: GEOL 2446 or permission of the instructor. I.

Interdisciplinary Studies

209 University Hall • Box 19419 • 817-272-2338 • www2.uta.edu/ints

The undergraduate Interdisciplinary Studies Program (INTS) offers both the Bachelor of Arts and the Bachelor of Science 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 and contributes to professional growth, career goals, or future graduate studies. All applicants must have a minimum GPA of 2.0.

Application Procedure

1. The student makes an appointment to meet with an INTS advisor to review the student's career/academic goals and explain the program.
2. The student completes the application, writes a "Statement of Purpose" which must clearly articulate career/academic goals that no existing discipline on campus can accommodate, and fills out a "Course Inventory" which lists courses and organizes them according to specific skills/academic competencies that the student's career goal or future graduate study requires.
3. The student meets again with the advisor, who examines each proposed course to determine its appropriateness to the area of concentration and to place it in the appropriate component area.

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 Degree in Interdisciplinary Studies

General Requirements

English

1301 and 1302.

Literature

Three hours of English literature or modern language literature at the sophomore level (2000) or above.

Liberal Arts

INTS 2301: Interdisciplinary Perspectives is strongly recommended, or three hours of course work from the College of Liberal Arts curriculum at the sophomore level (2000) or above.

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 approved course list from Art, Music, Dance, Theater Arts, Classical Studies, Honors, or Architecture.

Social/Cultural Studies

Three hours from approved course list from Advertising, Anthropology, Architecture, Art, Biology, Business Administration, Classical Studies, Communications, Early Childhood Professions, Economics, English, Exercise Science, French literature, Geography, German literature, History, Honors, Humanities, Linguistics, Music, Nursing, Philosophy, Political Science, Public Relations, Psychology, Russian literature, Sociology, Social Work, Spanish literature, Urban Studies, and Women's Studies.

Requirements for the Bachelor of Science Degree in Interdisciplinary Studies

General Requirements

English

1301 and 1302.

Literature

Three hours of English literature or modern language literature at the sophomore level (2000) or above.

Liberal Arts

Three hours of course work from the College of Liberal Arts curriculum at the sophomore level (2000) or above.

History

1311 and 1312.

Political Science

2311 and 2312.

Mathematics

Six 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 approved list from Art, Music, Dance, Theater Arts, Classical Studies, Honors, or Architecture.

Social/Cultural Studies

Three hours from approved course list from Advertising, Anthropology, Architecture, Art, Biology, Business Administration, Classical Studies, Communications, Early Childhood Professions, Economics, English, Exercise Science, French literature, Geography, German literature, History, Honors, Humanities, Linguistics, Music, Nursing, Philosophy, Political Science, Public Relations, Psychology, Russian literature, Sociology, Social Work, Spanish literature, Urban Studies, and Women's Studies.

Electives for Both BA and BS Degrees

Sufficient hours to complete the total required for the degree (128). Students are encouraged to choose elective courses that will strengthen and support their area of concentration.

Total Hours Required for Graduation for BA and BS Degrees

128 hours, at least 36 of which must be 3000/4000 level, plus 4 hours in exercise and sport activities (EXSA/DNCA), ROTC, or marching band is required. For possible exemptions from exercise and sport activity, consult the Registration section of the catalog.

Areas of Concentration

BA and BS Degrees

The area of concentration consists of courses selected by the student in consultation with the advisor that clearly relate to the title/academic competency of each component and to the program title of the degree plan. A minimum of 36 hours is required for the area of concentration. A maximum of 18 hours may be selected from any single discipline outside of the general requirements. A minimum of 18 hours of 3000/4000 level course work is required. A minimum of 18 hours at any level must be taken at U.T. Arlington.

Examples of BA degree programs offered include, but are not limited to, the following:

- Alternative Certification for Elementary Teaching (Students wanting certification should contact the School of Education)
- Entrepreneurship
- Child Care Facility Management
- Construction Management
- Health Care Administration
- Human Resource Administration
- Landscape Design
- Technical Sales
- Web Design/E-Commerce
- Seminary Preparation

BS Degree Only

For the Bachelor of Science degree, at least 18 hours in the area of concentration must be "science-for-science majors" course work. Twelve of these hours must be 3000/4000 level course work.

Examples of BS degree programs include, but are not limited to, the following:

- Alternative Certification for Elementary Teaching (Students wanting certification should contact the School of Education)
- Biomedical Engineering
- Environmental Studies
- Forensics
- Medical Management
- Medical Equipment Sales
- Neuroscience
- Physician Assistant
- Pharmaceutical Sales

Competence in Computer Use for BA and BS Degrees

Graduating students should 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 should 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 should take a computer proficiency course that is most directly related to their area of concentration. Students should consult with their academic advisor for course suggestions.

Competence in Oral Proficiency for BA and BS Degrees

Students should 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 should take an oral proficiency course that is most directly related 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

INTS has cooperative programs of study with various schools, departments, and programs including The Center for Mexican-American Studies, The School of Urban and Public Affairs, the Program in Landscape Architecture, and the Department of Electrical Engineering.

Examples of cooperative interdisciplinary degree options with concentrations in the following areas:

- CMAS-INTS: Spanish Culture
- CMAS-INTS: Public Policy
- Landscape Design
- Urban Public Administration
- Urban Planning and the Environment
- Urban Affairs and Public Policy
- Electrical Utility Engineering Certification Program

Interdisciplinary Studies (INTS)

2301. INTERDISCIPLINARY PERSPECTIVES (3-0) 3 hours credit.

This is a foundation course that 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.

4391. INTERDISCIPLINARY CAPSTONE (3-0) hours credit.

As the final course in the student's baccalaureate experience, the capstone course is designed to synthesize the entire Interdisciplinary Studies experience. This course examines various models of interdisciplinary research, analyzes selected examples, and formulates and plans an interdisciplinary research project or internship. INTS and relevant departments will determine academic criteria for capstone projects or internships. Prerequisites: INTS 2301, junior standing at the time of application, a 3.0 in course work in the area of concentration, and advisor approval of abstract of proposed capstone project.

The Department of Mathematics

478 Pickard Hall • Box 19408 • 817-272-3261 • www.uta.edu/math
Academic Advising: 478 Pickard Hall • 817-272-3261

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, and 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 computer science option is intended for those students who wish to seek employment relating to mathematical computing. The statistics and management science/operations research 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 and 4345 (Numerical Analysis), MATH 3313-4313 (Probability and Statistics), MATH 3313-4311 (Probability and Random Processes), MATH 3314-4314 (Discrete Mathematics), MATH 3318-4320 or MATH 3318-4324 (Differential Equations), MATH 3318-4318 (Mathematical Methods for Sciences), and MATH 3301-4342 (Contemporary Geometry). For the computer science option, the second sequence must be MATH 3345-4345. For the statistics option, the second sequence must be MATH 3313-4313.

It is strongly recommended that mathematics majors take MATH 3330 (Intro to Matrices and Linear Algebra) as early as possible, since this course is a prerequisite for many other 3000/4000-level courses. It is suggested to take MATH 3330 simultaneously with Calculus III. Mathematics majors may want to consider taking MATH 3300 (Intro to Proofs) before attempting the required courses MATH 3321 and MATH 3335. It is also 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 1306, 1310, or 1320.

Teacher Certification

Students interested in earning a Bachelor of Arts or Bachelor of Science degree with a major in mathematics with secondary or elementary teacher certification or in mathematics as a second teaching field should refer to the School of Education section of this catalog for teacher certification requirements.

Requirements for a Bachelor of Science Degree in Mathematics

English

Six hours of composition.

Literature

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

Liberal Arts Elective

Three hours above the freshman level of literature (required option for teacher certification), 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, archaeology, social/political/cultural geography, psychology, economics, sociology, classical studies, or linguistics.

Fine Arts

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

Modern Language

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 1301, 1302, and 1284, or BIOL 1441 and 1442, or GEOL 1445 and 1446. 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 1306, 1310, 1320, 1325, or MATH 3345

Computer Literacy

Three hours from MATH 1319, CSE 1301, GEOL 1491, BUSA 2303, or equivalent course approved by Undergraduate Advisor or competency test.

Oral Communication Competency

MATH 4180 or substitute approved by Undergraduate Advisor.

Major

MATH 1325, 1426, 2325, 2326, 3314, 3318, 3330, 3321, 3335.

One course from 4321, 4335, 4334.

15 additional advanced hours (3300 or above), including a second sequence (see paragraph three on this page).

Minor

Either a Departmental Minor or an Area Minor.

Departmental Minor: 18 hours in one department, including at least six hours of 3000/4000-level courses. The department must be in the College of Science or the College of Engineering.

Area Minor: 24 hours including at least nine hours of 3000/4000 level courses. The areas permitted are natural sciences (biology, chemistry, geology, physics), and engineering (all courses).

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, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Suggested Course Sequence

Freshman Year

First Semester: MATH 1325; MATH 1426; Computer Literacy, 3 hours; ENGL 1301; HIST 1311; EXSA or ROTC or Marching Band—Total credit 17 hours.

Second Semester: MATH 2325; MATH 3314; PHYS 1443; ENGL 1302; HIST 1312; EXSA or ROTC—Total credit 17 hours.

Sophomore Year

First Semester: MATH 2326; MATH 3330; PHYS 1444; English Literature, 3 hours; Social and Cultural Studies, 3 hours; EXSA or ROTC or Marching Band—Total Credit 17 hours.

Second Semester: MATH 3318; Mathematics, 3 hours; Physics, 3 hours; Liberal Arts Elective, 3 hours; Fine Arts, 3 hours; EXSA or ROTC—Total Credit 16 hours.

Junior Year

First Semester: MATH 3335; Minor, 3 hours; Natural Science, 3 hours; POLS 2311; Elective, 3 hours—Total Credit 15 hours.

Second Semester: MATH 4335; Mathematics, 3 hours; Minor, 3 hours; Natural Science, 3 hours; POLS 2312—Total Credit 15 hours.

Senior Year

First Semester: MATH 3321; Mathematics, 3 hours; Minor, 3 hours; Modern Language I, 4 hours—Total Credit 13 hours.

Second Semester: Mathematics, 6 hours; Minor, 3 hours; Modern Language II, 4 hours—Total Credit 13 hours.

Requirements for a Bachelor of Arts Degree in Mathematics

English

Six hours of composition.

Literature

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

Liberal Arts Elective

Three hours above the freshman level of literature (required option for teacher certification), 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, dance, music, or theatre arts.

Modern Language

14 hours (Level I, II, III, and IV) in one language, or Level I and II and 6 hours cultural studies.

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 1301, 1302, and 1284; or BIOL 1441 and 1442; or GEOL 1445 and 1446. 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, GEOL 1491, BUSA 2303, or equivalent course approved by Undergraduate Advisor, or competency test.

Oral Communication Competency

MATH 4180 or substitute approved by Undergraduate Advisor.

Computer Programming

Three hours from MATH 1319, CSE 1306, 1310, 1320, 1325, or MATH 3345.

Major

MATH 1325, 1426, 2325, 2326, 3314, 3330, 3321, 3335.

One course from 4321, 4335, 4334

12 additional advanced hours (3300 or above), including a second sequence (see page 295, paragraph three).

Minor

Either a Departmental Minor or an Area Minor.

Departmental Minor: 18 hours in one department, including at least six advanced (3000 or above) hours. Some departments require more than 18 hours.

Area Minor: 24 hours, including at least nine advanced (3000/4000) hours. Areas permitted are natural sciences (biology, chemistry, geology, physics), engineering, business administration, fine arts (architecture, art, music, and theatre arts) and social sciences (anthropology, economics, history, political science, psychology, sociology, and social work).

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, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Suggested Course Sequence

Freshman Year

First Semester: MATH 1325; ENGL 1301; HIST 1311; Computer Literacy, 3 hours; Modern Language I, 4 hours; EXSA or ROTC or Marching Band—Total Credit 17 hours.

Second Semester: MATH 1426; ENGL 1302; HIST 1312; Natural Science, 3 or 4 hours; Modern Language II, 4 hours; EXSA or ROTC—Total Credit 18 or 19 hours.

Sophomore Year

First Semester: MATH 2325; MATH 3314; English Literature, 3 hours; Natural Science, 3 or 4 hours; Modern Language III, 3 hours; EXSA or ROTC or Marching Band—Total Credit 16 or 17 hours.

Second Semester: MATH 2326; MATH 3330; Liberal Arts Elective, 3 hours; Natural Science, 3 or 4 hours; Modern Language IV, 3 hours; EXSA or ROTC—Total Credit 16 or 17 hours.

Junior Year

First Semester: MATH 3321; Mathematics, 3 hours; Minor 3 hours; Natural Science, 2 to 4 hours; Social and Cultural Studies, 3 hours—Total Credit 14 to 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, 3 hours; POLS 2311; Elective, 3 hours—Total Credit 15 hours.

Second Semester: Mathematics, 3 hours; Minor, 3 hours; Elective, 3 hours; POLS 2312—Total Credit 12 hours.

Requirements for a Bachelor of Science Degree in Mathematics

(Computer Science Option)

English

Six hours of composition.

Literature

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

Liberal Arts Elective

Three hours above the freshman level of literature (required option for teacher certification), 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, dance, music, or theatre arts.

Modern Language

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 1301, 1302, and 1284; or BIOL 1441 and 1442; or GEOL 1445 and 1446. 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, GEOL 1491, BUSA 2303, or equivalent course approved by Undergraduate Advisor, or competency test.

Oral Communication Competency

MATH 4180 or substitute approved by Undergraduate Advisor.

Major

MATH 1325, 1426, 2325, 2326, 3313, 3314, 3318, 3330, 3345, 3321, 3335, 4345.

One course from 4321, 4335, 4334.

Option

CSE 1306 or MATH 1319 and CSE 1310, 1320, 1325, 2320.

Six other advanced (3000/4000) hours in computer science.

Choice

Six additional advanced hours (3300 or above) in mathematics or computer science.

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, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Suggested Course Sequence

Freshman Year

First Semester: MATH 1325; MATH 1426; CSE 1306; ENGL 1301; HIST 1311; EXSA or ROTC or Marching Band—Total Credit 17 hours.

Second Semester: MATH 2325; MATH 3314; CSE 1310; ENGL 1302; HIST 1312; EXSA or ROTC—Total Credit 16 hours.

Sophomore Year

First Semester: MATH 2326; MATH 3330; CSE 1320; English Literature, 3 hours; Social and Cultural Studies, 3 hours; EXSA or ROTC or Marching Band—Total Credit 16 hours.

Second Semester: MATH 3318; Elective, 3 hours; CSE 1325; Liberal Arts Elective, 3 hours; Fine Arts, 3 hours; EXSA or ROTC—Total Credit 16 hours.

Junior Year

First Semester: MATH 3345; MATH 3325; CSE 2320; Natural Science, 4 hours; POLS 2311—Total Credit 16 hours.

Second Semester: MATH 4345; MATH 4335; CSE, 3 hours; Natural Science, 4 hours; POLS 2312—Total Credit 16 hours.

Senior Year

First Semester: MATH 3321; CSE, 3 hours; Natural Science, 3 hours; Modern Language I, 4 hours—Total Credit 13 hours.

Second Semester: MATH 3313; Mathematics or CSE, 3 hours; Natural Science, 3 hours; Modern Language II, 4 hours—Total Credit 13 hours.

Requirements for a Bachelor of Science Degree in Mathematics (Statistics Option)

English

Six hours of composition.

Literature

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

Liberal Arts Elective

Three hours above the freshman level of literature (required option for teacher certification), 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 in architecture, art, dance, music, or theatre arts.

Modern Language

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 1301, 1302, and 1284; or BIOL 1441 and 1442; or GEOL 1445 and 1446. 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, GEOL 1491, BUSA 2303, or equivalent course approved by Undergraduate Advisor, or competency test.

Oral Communication Competency

MATH 4180 or substitute approved by Undergraduate Advisor.

Computer Programming

Three hours from MATH 1319, CSE 1306, 1310, 1320, 1325, or MATH 3345.

Major

MATH 1325, 1426, 2325, 2326, 3302, 3303, 3313, 3314, 3316, 3330, 3345, 3321, 3335, 4313.

One course from 4321, 4335, 4334

Three additional advanced hours (3300 or above) in mathematics.

Option

CSE 1306, BUSA 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, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Suggested Course Sequence

Freshman Year

First Semester: MATH 1325; MATH 1426; CSE 1306; ENGL 1301; HIST 1311; EXSA or ROTC or Marching Band—Total Credit 17 hours.

Second Semester: MATH 2325; MATH 3314; Natural Science, 4 hours; ENGL 1302; HIST 1312; EXSA or ROTC—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; EXSA or ROTC or Marching Band—Total Credit 17 hours.

Second Semester: MATH 3313; MATH 3316; Natural Science, 3 hours; Liberal Arts Elective, 3 hours; Fine Arts, 3 hours; EXSA or ROTC—Total Credit 16 hours.

Junior Year

First Semester: MATH 3335; MATH 3302; CSE 4319; Natural Science, 3 hours; POLS 2311—Total Credit 15 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; BUSA 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 language literature or other approved substitute.

Liberal Arts Elective

Three hours above the freshman level of literature (required option for teacher certification), 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, dance, music, or theatre arts.

Modern Language

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 1301, 1302, and 1284; or BIOL 1441 and 1442; or GEOL 1445 and 1446. 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

CSE 1306 or MATH 1319.

Computer Literacy

Three hours from MATH 1319, CSE 1301, GEOL 1491, BUSA 2303, or equivalent course approved by Undergraduate Advisor, or competency test.

Oral Communication Competency

MATH 4180 or substitute approved by Undergraduate Advisor.

Major

MATH 1325, 1426, 2325, 2326, 3303, 3304, 3313, 3314, 3330, 3321, 3335.

One course from 4321, 4335, 4334.

Nine additional advanced hours (3300 or above), including a second sequence (see page 295, paragraph three).

Option

BUSA 3306, OPMA 3308, and three additional hours in Operations Management, ECON 2305, 2306, and ACCT 2301, 2302. Six additional hours of 3000/4000-level courses in the College of Business Administration (except BUSA 3321).

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, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Suggested Course Sequence

Freshman Year

First Semester: MATH 1325; MATH 1426; CSE 1306; ENGL 1301; HIST 1311; EXSA or ROTC or Marching Band—Total Credit 17 hours.

Second Semester: MATH 2325; MATH 3314; Natural Science, 4 hours; ENGL 1302; HIST 1312; EXSA or ROTC—Total Credit 17 hours.

Sophomore Year

First Semester: MATH 2326; MATH 3330; English Literature, 3 hours; ECON 2305; Natural Science, 4 hours; EXSA or ROTC or Marching Band—Total Credit 17 hours.

Second Semester: MATH 3313; MATH 3304; Natural Science, 3 hours; Liberal Arts Elective, 3 hours; ECON 2306; EXSA or ROTC—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; BUSA 3306; ACCT 2302; Fine Arts, 3 hours; POLS 2312—Total Credit 15 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)

English

Six hours of composition.

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 or cultural studies.

History

Six hours from 1311, 1312.

Political Science

2311, 2312.

Social/Cultural Studies

Three hours from archaeology, classical studies, communications, economics, history, humanities, linguistics, political science, social or cultural anthropology, archaeology, social/political/cultural geography, social psychology, sociology, women's studies, or approved substitutes as approved by the Undergraduate Assembly.

Fine Arts

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

Modern Language

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 1301, 1302 and 1284; BIOL 1441, 1442; GEOL 1445, 1446. Each course may be replaced by another course in the same field that requires the original course as a prerequisite.

Computer Programming

CSE 1306 or MATH 1319.

Computer Literacy

Three hours from MATH 1319, CSE 1301, GEOL 1491, BUSA 2303, or equivalent course approved by Undergraduate Advisor, or competency test.

Oral Communication Competency

MATH 4180 or substitute approved by Undergraduate Advisor.

Major

MATH 1325, 1426, 2325, 2326
 MATH 3330 and one of 3318, 3319
 MATH 3345, 4345
 MATH 3314, 4314
 MATH 3335

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 plus EXSA/DNCA or ROTC or Marching Band as required.

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 MATH 3301 and 3319. The following courses are required: 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.

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.

- Minimum GPA of 2.25 in at least nine hours of mathematics courses in residence at the level of MATH 1325 or above.
- At least six hours from the science or computer science courses listed in the mathematics degree plans.
- 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 depending on their current status.

Academic Probation (College of Science): Majors whose overall GPA or GPA in major courses falls below 2.0 will be placed on probation and, in addition to counseling by the University Advising Center, must consult with the Department Advisor prior to enrolling in additional courses.

Satisfactory Academic Standard Requirement

In addition to all U.T. Arlington university-wide scholastic probation policies, the Mathematics Department requires that a mathematics major whose GPA is below 2.0 for all mathematics courses attempted at U.T. Arlington with course numbers MATH 1325 or higher, must change his/her major program.

To re-enter as a mathematics major, the student needs to follow the procedure as stated in the Change of Major section.

Graduation Requirement

In addition to all U.T. Arlington university-wide graduation requirements, and in addition to the requirements for the specific bachelor degree programs offered by the Mathematics Department, the Mathematics Department requires that, in order to graduate, the candidate must have a GPA of at least 2.0 in all mathematics courses attempted at U.T. Arlington with course numbers above MATH 3000.

Transitional Graduation Requirement

Students enrolled at U.T. Arlington prior to Fall 1991 and who have not received credit for any mathematics course numbered MATH 3000 or above as of September 1, 1991, must, in order to graduate, have a GPA of at least 2.0 in all mathematics courses attempted at U.T. Arlington with course number MATH 3000 or above.

Non-Credit Courses

The following courses will not be counted for credit (as mathematics or electives) toward a bachelor's degree in mathematics: MATH 1308, 1315, 1316, BUSA 3321.

Pre-Actuarial Program

U.T. Arlington offers a number of courses containing background material for Society of Actuaries tests 100, 110, 120, 130, and 135. For a suggested program of study, see an advisor in the Mathematics Department.

Department of Mathematics Faculty

Chair

Professor Dyer

Professors

Bernfeld, Dragan, C. Liu, Liao
 Han, Ladde, Moore, Nestell

Associate Professors

Bochev, Gillespie, Harvey, Hawkins,
 Heath, Hu, Korzeniowski, Luo, Su, Warren

Assistant Professors

Hagen, Jorgensen, Kojouharov, Kribs Zaleta,
 Y. Liu, Shilling, Shipman, Vancliff

Lecturers

Baker, Campbell, Ellington, Krueger, McDonald

Mathematics (MATH)

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

Students must take and pass the Math Placement Test prior to registering for MATH 1302, 1303, 1308 or 1315. Students must take and pass the Calculus Readiness Test prior to registering for MATH 1426.

0301. TASP PREPARATION (3-0) 3 hours credit. Review of topics covered on the Texas Academic Skills Program Test (TASP), includ-

ing algebra and geometry. Credit in this course does not fulfill any degree requirement. Prerequisite: Math TASP score less than 220.

0302. FUNDAMENTALS OF ALGEBRA (3-0) 3 hours credit. 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.

1302. COLLEGE ALGEBRA (3-0) 3 hours credit (MATH 1314). 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; compound interest and annuities; systems of linear equations; matrices; permutations, combinations and probability. Prerequisite: passing score on the mathematics placement test (for details, contact the Mathematics Department). Credit cannot be received for both MATH 1302 and MATH 1315.

1303. TRIGONOMETRY (3-0) 3 hours credit (MATH 1316). Trigonometric functions, radian measure, solution of triangles, graphs of trigonometric functions, trigonometric identities and equations, and complex numbers. Prerequisite: passing score on the mathematics placement test (for details, contact the Mathematics Department).

1308. ELEMENTARY STATISTICAL ANALYSIS (3-0) 3 hours credit (MATH 1342). Descriptive statistics, relationships between variables, interpretation of data and graphs, rudiments of probability, elementary statistical models, hypothesis testing, inference, and estimation. Prerequisites: MATH 1302 or MATH 1315 or equivalent and passing score on the mathematics placement test (for details, contact the Mathematics Department).

1313. LIBERAL ARTS HONORS MATHEMATICS (3-0) 3 hours credit. 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.

1315. COLLEGE ALGEBRA FOR ECONOMICS AND BUSINESS ANALYSIS (3-0) 3 hours credit (MATH 1324). 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. Prerequisite: passing score on the mathematics placement test (for details, contact the Mathematics Department). Credit cannot be received for both MATH 1302 and MATH 1315.

1316. MATHEMATICS FOR ECONOMICS AND BUSINESS ANALYSIS (3-0) 3 hours credit (MATH 1325). 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: MATH 1315 or equivalent.

1319. FORTRAN PROGRAMMING AND COMPUTER LITERACY (2-2) 3 hours credit. Computing techniques using the FORTRAN 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 1325 or concurrent registration.

1323. PRE-CALCULUS (3-0) 3 hours credit. This course provides requisite knowledge and skills for success in MATH 1426 (Calculus I). An emphasis will be placed on introducing vocabulary, notation and concepts that are basic to the study of first year calculus. Course topics include: Review of fundamental algebraic concepts, equations,

and inequalities, functions and graphs, polynomial and rational functions, sequences and summation, trigonometric functions, vectors in two dimensions. Prerequisites: MATH 1302 and 1303; or MATH 1324 or equivalent. Students without either MATH 1302 and 1303, or MATH 1324, must take the math placement test and obtain permission from a mathematics department advisor before enrolling in this course.

1324. ALGEBRA AND TRIGONOMETRY (3-0) 3 hours credit. A fast-paced summary study of the topics of MATH 1302 and 1303 and intended for calculus-track students. Credit cannot be received for MATH 1324 and MATH 1302 or 1303. Prerequisite: Equivalent of at least two years high school algebra and trigonometry.

1325. ANALYTIC GEOMETRY (3-0) 3 hours credit (MATH 1348). 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. Prerequisite: MATH 1324, or MATH 1302 and MATH 1303, or two years of high school algebra and one-half year of high school trigonometry.

1330. ARITHMETICAL PROBLEM SOLVING (3-0) 3 hours credit. 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: MATH 1302 and consent of instructor.

1331. GEOMETRICAL INFERENCE AND REASONING (3-0) 3 hours credit. 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: MATH 1330 and consent of instructor.

1332. FUNCTIONS, DATA, AND APPLICATIONS (3-0) 3 hours credit. 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: MATH 1330 and consent of instructor.

1426. CALCULUS I (3-2) 4 hours credit (MATH 2413). Concepts of limit, continuity, differentiation and integration; applications of these concepts. The laboratory work will include a computer algebraic system. Prerequisite: MATH 1323, MATH 1325 or concurrent registration with major advisor's approval.

2325. CALCULUS II (3-0) 3 hours credit (MATH 2314). Applications of integration, techniques of integration, parametric equations, polar coordinates, sequences and series. Prerequisite: MATH 1426.

2326. CALCULUS III (3-0) 3 hours credit (MATH 2315). Partial differentiation, multiple integrals (with applications), line integrals, Green's Theorem, surface integrals, Stokes' Theorem, divergence theorem. Prerequisite: MATH 2325.

3300. INTRODUCTION TO PROOFS (3-0) 3 hours credit. 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. Prerequisite: MATH 1426.

3301. INTRODUCTION TO THE FOUNDATIONS OF GEOMETRY (3-0) 3 hours credit. A development of the foundations of geometry. Prerequisite: MATH 1426.

3302. MULTIVARIATE STATISTICAL METHODS (3-0) 3 hours credit. Topics in multivariate data analysis with applications in vari-

ous areas of interest including business research. Multiple regression, introduction to econometric models, discriminant analysis, cluster analysis, factor analysis, and the use of standard multivariate statistical packages. Prerequisite: MATH 3313 or MATH 3316.

3303. MATHEMATICAL GAME THEORY (3-0) 3 hours credit. 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: MATH 3330.

3304. LINEAR OPTIMIZATION APPLICATIONS (3-0) 3 hours credit. 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: MATH 3330.

3307. ELEMENTARY NUMBER THEORY (3-0) 3 hours credit. Various topics in elementary number theory. Divisibility, congruences, quadratic reciprocity, and multiplicative functions. Prerequisite: nine hours of college mathematics.

3313. INTRODUCTION TO PROBABILITY AND MATHEMATICAL STATISTICS (3-0) 3 hours credit. Permutations, combinations, events and their probabilities, Bayes formula, random variables, probability distributions, expected value, functions of random variables, moment generating functions, central limit theorem and its role in statistics. Prerequisite: MATH 2326.

3314. DISCRETE MATHEMATICS (3-0) 3 hours credit. 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: MATH 1426.

3315. MATHEMATICAL MODELS (3-0) 3 hours credit. 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: MATH 2326 or permission of the instructor.

3316. STATISTICAL INFERENCE (3-0) 3 hours credit. A comprehensive treatment of statistical methodology in various areas of applications. Elementary probability, descriptive statistics, discrete and continuous distributions, estimation, testing hypothesis, linear regression, and analysis of variance. Prerequisite: six hours of mathematics.

3318. DIFFERENTIAL EQUATIONS (3-0) 3 hours credit. 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: MATH 2326 or concurrent registration.

3319. DIFFERENTIAL EQUATIONS AND LINEAR ALGEBRA (3-0) 3 hours credit. Introductory course with emphasis on solution techniques. Ordinary differential equations, vector spaces, linear transformations, matrix/vector algebra, eigenvectors, Laplace Transform, and systems of equations. Prerequisite: MATH 2326 or concurrent registration.

3321. ABSTRACT ALGEBRA I (3-0) 3 hours credit. Groups including Lagrange's Theorem, Cauchy's Theorem, the homomorphism theorems, and symmetric groups. Prerequisite: MATH 3330 or MATH 3314.

3330. INTRODUCTION TO MATRICES AND LINEAR ALGEBRA (3-0) 3 hours credit. Solving systems of linear equations, matrix operations, determinants, vector spaces, linear transformation, orthogonality, Gram-Schmidt process, projections, and eigenvalues and eigenvectors. Prerequisite: MATH 1426.

3335. ANALYSIS I (3-0) 3 hours credit. Real numbers, sequences, series, limits of functions, continuity, and differentiation. Prerequisite: MATH 2326 and MATH 3314 or MATH 3330.

3345. NUMERICAL ANALYSIS AND COMPUTER APPLICATIONS (2-2) 3 hours credit. Elementary error analysis, numerical solutions of nonlinear equations, numerical integration and differentiation, polynomial interpolation, solutions of linear systems, and an introduction to spline functions. The laboratory work will include use of the computer in solving the problems. Prerequisites: MATH 2326, MATH 3330, and a knowledge of FORTRAN, C, or PASCAL.

4180. ORAL COMMUNICATION OF MATHEMATICS (1-0) 1 hour credit. 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.

4191, 4291, 4391. SPECIAL TOPICS IN MATHEMATICS (variable credit from 1 to 3 semester hours as arranged). 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. Prerequisites: senior standing and written permission of the instructor and chair.

4303. INTRODUCTION TO TOPOLOGY (3-0) 3 hours credit. A first course in topology from the axiomatic point of view. Prerequisite: MATH 3335.

4311. ELEMENTARY RANDOM PROCESSES (3-0) 3 hours credit. A continuation of MATH 3313. Topics: Markov chains, Poisson process, birth and death processes, Brownian motion. Has applications to physics, biology, engineering, business. Prerequisite: MATH 3313 or equivalent.

4313. APPLICATIONS OF MATHEMATICAL STATISTICS (3-0) 3 hours credit. A continuation of MATH 3313. Sampling distributions, estimation of parameters, confidence intervals, testing of hypotheses, regression, correlation, and selected topics. Prerequisite: MATH 3313.

4314. ADVANCED DISCRETE MATHEMATICS (3-0) 3 hours credit. Finite automata, Turing machines, formal languages, graph theory, combinatorial optimization, complexity of algorithms, P versus NP, and decidable versus undecidable problems. Prerequisite: MATH 3314.

4318. MATHEMATICAL METHODS FOR SCIENCES (3-0) 3 hours credit. Infinite series: complex variables; determinants; matrices; tensor analysis; Fourier analysis; differential equations; special functions. Prerequisites: MATH 3318 or 3319 and eight hours in the discipline of appropriate department.

4320. ADVANCED DIFFERENTIAL EQUATIONS (3-0) 3 hours credit. The existence and properties of solution of differential equations. Prerequisite: MATH 3318 or 3319.

4321. ABSTRACT ALGEBRA II (3-0) 3 hours credit. Rings and field theory, including polynomial rings and field extensions. Prerequisite: MATH 3321.

4322. INTRODUCTION TO COMPLEX VARIABLES (3-0) 3 hours credit. 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: MATH 2326.

4324. INTRODUCTION TO PARTIAL DIFFERENTIAL EQUATIONS (3-0) 3 hours credit. Methods of solutions of selected elliptic, parabolic, and hyperbolic partial differential equations with reference to physical applications. Prerequisite: MATH 3318 or 3319.

4334. ADVANCED MULTIVARIABLE CALCULUS (3-0) 3 hours credit. 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: MATH 3335.

4335. ANALYSIS II (3-0) 3 hours credit. Integration, sequences and series of functions, and metric spaces. Prerequisite: MATH 3335.

4342. COMPUTATIONAL GEOMETRY (2-2) 3 hours credit. A survey of the mathematical elements for computer graphics. Topics included are: affine, perspective and projective transformations, Bezier and B-spline curves and surfaces. Prerequisites: MATH 3301 or permission of instructor and a knowledge of a technical programming language.

4345. NUMERICAL ANALYSIS AND COMPUTER APPLICATIONS II (2-2) 3 hours credit. Numerical solutions for ordinary differential equations, boundary value problems, minimizations of multivariate functions, and methods of least squares. Prerequisites: MATH 3345 and 3318 or 3319.

4381. MATHEMATICS RESEARCH (3-0) 3 hours credit. 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.

4392. ADVANCED TOPICS IN MATHEMATICS (3-0) 3 hours credit. 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.

4393. HONORS THESIS/SENIOR PROJECT (3-0) 3 hours credit. 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.

The Department of Physics

108 Science Hall • Box 19059 • 817-272-2266 • www.uta.edu/physics
Academic Advising: 108 Science Hall • 817-272-2266

The Department of Physics offers two 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 and another for medical school preparation. 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 physics departmental advisor to discuss their degree options and their career potential as physicists. Physics majors are encouraged to take advantage of the many opportunities to participate in research projects under research faculty guidance. Students participating in these projects can gain extensive hands-on experience in a variety of research environments including condensed matter, optics, high energy, and computational physics. Undergraduate research assistants frequently receive financial awards.

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 the requirements for a second teaching field and must take certain education courses 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 English or modern language literature or other approved substitute.

Liberal Arts Elective

Three hours 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.)

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.

Electives

Sufficient to give the total number of hours required for the degree.

Computer Sciences

Six hours from PHYS 2321, CSE 1306, 1310, 2310, or MATH 3345.

Natural Science other than Physics

CHEM 1301, 1302, 1284, and a minimum of six hours from courses offered in the Departments of Biology and Geology.

Major

45 hours of physics including 1443, 1444, 2311, 3183, 3313, 3321, 4117, 4185, 4315, 4319, 4324, and 4326; 13 hours from 2321, 2445, 3315, 3445, 3446, 4171, 4172, 4181, 4191, 4281, 4291, 4391, 4393, and 4325.

Minor

MATH 1323, 1426, 2325, 2326, 3318, and a 4000 course.

Total

129 hours, of which at least 36 must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA) or ROTC or marching band as required.

Suggested Course Sequence*

Freshman Year

First Semester: ENGL 1301; MATH 1323; Biology or Geology, 3 or 4 hours; HIST 1311; CHEM 1301—Total Credit 15 or 16 hours.

Second Semester: ENGL 1302; MATH 1426; PHYS 1443; CHEM 1302; CHEM 1284; EXSA or ROTC—Total Credit 17 hours.

Sophomore Year

First Semester: English (literature), 3 hours; HIST 1312; PHYS 1444; CSE Requirement, 3 hours; MATH 2325; EXSA or ROTC or Marching Band—Total Credit 17 hours.

Second Semester: ENGL 2334 or SPCH 3302 or English (literature), 3 hours; Biology or Geology, 3 or 4 hours; PHYS 2311; MATH 2326; PHYS 2321; EXSA or ROTC—Total Credit 16 or 17 hours.

Junior Year

First Semester: MATH 3318; POLS 2311; PHYS 3313; PHYS 3183; PHYS 3321; Required Physics, 3 or 4 hours—Total Credit 16 or 17 hours.

Second Semester: POLS 2312; Social Science, 3 hours; PHYS 4315; PHYS 4324; PHYS 4185; Required Physics, 3 or 4 hours—Total Credit 16 or 17 hours.

Senior Year

First Semester: Mathematics (4000 course), 3 hours; PHYS 4319; PHYS 4117; Required Physics, 3 or 4 hours; Electives, 6 hours; EXSA or ROTC or Marching Band—Total Credit 17 or 18 hours.

Second Semester: PHYS 4326; Required Physics Courses, 1 to 3 hours; Electives, 7 to 9 hours; Fine Arts, 3 hours—Total Credit 14 to 18 hours.

*The availability of most physics courses should be checked well in advance.

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 English or modern language literature or 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.)

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.

Electives

Sufficient to give the total number of hours required for the degree.

Biology

Core courses 1441 and 1442 or 3444; Advanced courses 3315 and 3442;

One course from: 3301, 3333, or 4315; any other 3000/4000 level course.

Chemistry

General Chemistry with lab: 1301, 1302, and 1284.

Organic Chemistry with lab: 2321, 2181, 2322, 2182.

Mathematics

1325, 1426, 2325, 2326, and 3318.

Physics

36 hours including 1443, 1444, 2311, 3183, 3313, 3321, 4117, 4185, 4315, 4319, 4324, and 4326.

Requirements for a Bachelor of Arts Degree in Physics

English

Six hours of composition.

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.

Modern Language

14 hours in a single modern language or eight hours in a language, plus six hours from one area cluster (see substitution list in introductory information for the College of Science).

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

Ten hours including 2326.

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.

Natural Science other than Physics

12 hours from courses offered in the Departments of Biology, Chemistry, or Geology.

Computer Science

Three hours from PHYS 2321 or CSE 1301 or above.

Electives

Sufficient to give the total number of hours required for the degree.

Major

PHYS 2311, 3183, 3313, 4117, plus 18 additional hours, of which a minimum of seven must be 3000/4000-level courses.

Minor

18 hours, of which a minimum of six must be 3000/4000 level.

Total

125, of which at least 36 must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA), ROTC, or marching band as required.

Suggested Course Sequence

Freshman Year

First Semester: ENGL 1301; Mathematics, 3 hours; HIST 1311; Fine Arts, 3 hours; Other Natural Science, 3 or 4 hours; EXSA or ROTC or Marching Band—Total Credit 16 or 17 hours.

Second Semester: ENGL 1302; Mathematics, 4 hours; HIST 1312; Other Natural Science, 3 or 4 hours; Social Science, 3 hours; EXSA or ROTC—Total Credit 17 or 18 hours.

Sophomore Year

First Semester: English, 3 hours; PHYS 1443; Mathematics, 3 hours; Other Natural Science, 3 or 4 hours; POLS 2311; EXSA or ROTC or Marching Band—Total Credit 17 or 18 hours.

Second Semester: English, 3 hours; POLS 2312; PHYS 1444; MATH 2326; Other Natural Science, 3 or 4 hours; EXSA or ROTC—Total Credit 17 or 18 hours.

Junior Year

First Semester: PHYS 3313; PHYS 3183; PHYS 2321; Modern Language, 4 hours; Electives, 5 hours—Total Credit 16 hours.

Second Semester: PHYS 2311; Physics Elective, 3 or 4 hours; Modern Language, 4 hours; Electives, 5 or 6 hours—Total Credit 15 or 17 hours.

Senior Year

First Semester: PHYS 4117; Physics Electives, 7 or 8 hours; Modern Language, 3 hours; Electives, 4 or 5 hours—Total Credit 15 to 17 hours.

Second Semester: Physics Electives, 7 or 8 hours; Modern Language, 3 hours; Electives, 8 or 9 hours—Total Credit 18 to 20 hours.

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

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

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 School of Education section of this catalog for teacher certification requirements.

Oral Communication and Computer Competency Requirements

A practicing professional physicist must be able to apply computers to the investigation of physical phenomena. This requires experience in computer programming and the use of computers for the simulation of physical processes. To meet the university computer competency requirement, physics majors must complete the appropriate course work with PHYS 2321, Computational Physics, the recommended minimum. Other options include MATH 3345, CSE 1306, or CSE 1310.

The university oral communication competency requirement will be met by the Individual Learning by Seminar course, PHYS 4117. This course is required of all physics majors and includes a seminar presentation.

Students should refer to their specific degree plans and a physics undergraduate advisor for details regarding these requirements.

Department of Physics Faculty

Chair

Professor Fry

Professors

Black, Koymen, Musielak, Ray, Rubins,

Sharma, Weiss, West, White

Associate Professors

De, Howard, Terrell, Zhang

Assistant Professor

Brandt

Adjunct Professors

Claytor, Missel, Schachar, Suh, Torti

Physics (PHYS)

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

1188, 1288.# SPECIAL PROBLEMS IN GENERAL PHYSICS (1 or 2 hours credit). 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. Prerequisites: six hours of physics and concurrent enrollment in MATH 1325.

1300. INTRODUCTION TO MUSICAL ACOUSTICS (3-0) 3 hours credit. 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.

1401. PHYSICS FOR NON-SPECIALISTS (3-2) 4 hours credit. 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. Formerly 1447; both 1447 and 1401 cannot be counted for credit.

1402. PHYSICS FOR NON-SPECIALISTS (3-2) 4 hours credit. Follows PHYS 1401 and explains sound, light, electricity, and magnetism. Prerequisite: PHYS 1401 or permission of instructor. Formerly 1448; both 1448 and 1402 cannot be counted for credit.

1441. GENERAL COLLEGE PHYSICS (3-3) 4 hours credit. 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 electrostatics, current electricity, magnetism, electromagnetism, AC theory, light and optics, and some topics in 20th century physics is supplemented by laboratory experiments. Prerequisites: PHYS 1441 or its equivalent, or permission of the instructor.

1442. GENERAL COLLEGE PHYSICS (3-3) 4 hours credit. The second half of a one-year, non-calculus introductory physics course. Subject matter includes electricity and magnetism, light and optics, and modern physics. Prerequisites: PHYS 1441 or equivalent, or consent of instructor.

1443. GENERAL TECHNICAL PHYSICS (3-3) 4 hours credit. 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. Prerequisite: MATH 1426 or concurrent enrollment.

1444. GENERAL TECHNICAL PHYSICS (3-3) 4 hours credit. The second half of a one-year technical course. The study of physical phenomena including electricity, magnetism, circuit theory, light, and optics. Prerequisites: PHYS 1443 and MATH 2325 or concurrent enrollment.

1445. INTRODUCTORY ASTRONOMY I (3-2) 4 hours credit. 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.

1446. INTRODUCTORY ASTRONOMY II (3-2) 4 hours credit. 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.

2311. MATHEMATICAL METHODS OF PHYSICS (3-0) 3 hours credit. Harmonic oscillators, waves, vector description of particles and fields, coordinate transformations, eigenvalue problems, and systems of linear equations. Prerequisites: MATH 2325 or 2425 and PHYS 1288 or 1444.

2321. COMPUTATIONAL PHYSICS (3-0) 3 hours credit. 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.

2445. ELECTRONICS (3-3) 4 hours credit. A study of electronic devices and components and their application to circuits and instrumentation of interest to science students. Prerequisites: PHYS 1288 or 1444 and MATH 2325 or 2425.

3183. MODERN PHYSICS LABORATORY (0-3) 1 hour credit. Supplements the topics covered in PHYS 3313. Prerequisite: PHYS 3313 or concurrent enrollment.

3313. INTRODUCTION TO MODERN PHYSICS (3-0) 3 hours credit. 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. Prerequisites: PHYS 1288 or 1444, and MATH 2325 or 2425.

3315. ASTROPHYSICS AND COSMOLOGY (3-0) 3 hours credit. 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. No prior astronomy background is assumed. Prerequisites: PHYS 3313 and MATH 3318.

3321. INTERMEDIATE ELECTRICITY AND MAGNETISM (3-0) 3 hours credit. Vector algebra and vector calculus applied to electrostatics, magnetostatics, the study of dielectric materials, and boundary value problems. Prerequisites: PHYS 2311 and MATH 3318.

3366. SPECIAL TOPICS IN PRE-COLLEGE PHYSICAL SCIENCE INSTRUCTION (1-6) 3 hours credit. 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. Prerequisites: junior standing, six hours of science, three hours of education and consent of the instructor.

3445. OPTICS (3-3) 4 hours credit. Fundamental principles of physical and geometric optics, absorption and scattering, Planck's quantum theory of radiation, diffraction, interference, light sources, and spectra. Prerequisites: PHYS 1288 or 1444, and MATH 2325 or 2425.

3446. NUCLEAR AND PARTICLE PHYSICS (3-3) 4 hours credit. 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.

4117.# INDIVIDUAL LEARNING BY SEMINAR (1 hour credit). Individual instruction on using the seminar as a model of learning current topics in physics. An individual report is required. Prerequisites: 18 hours of physics and senior standing.

4171, 4271. ADVANCED OPTICS LABORATORY (1 or 2 hours credit). Special laboratory projects in advanced optics. Prerequisites: PHYS 3445 or permission of the instructor.

4181, 4281.# SPECIAL PROBLEMS (1 or 2 hours credit as arranged). Special laboratory problems. Credit will be given appropriate to work assigned. May be repeated in any order for a total credit not to exceed four hours. Prerequisites: junior standing and permission of the chair of the department.

4185. ADVANCED ELECTRICITY AND MAGNETISM LABORATORY (0-3) 1 hour credit. Supplements the topics covered in PHYS 3321 and 4324. Prerequisite: PHYS 4324 or concurrent enrollment.

4191, 4291, 4391. # SPECIAL TOPICS IN PHYSICS (1, 2 or 3 hours credit). Special topics in physics, arranged for individuals or small groups. May be repeated for credit up to a maximum of three hours. Prerequisite: permission of the instructor.

4315. THERMODYNAMICS AND STATISTICAL MECHANICS (3-0) 3 hours credit. Topics in classical thermodynamics include the laws of thermodynamics, Gibbs' and Helmholtz'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. Prerequisites: PHYS 3313 and MATH 2326 or permission of the instructor.

4319. ADVANCED MECHANICS (3-0) 3 hours credit. 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. Prerequisites: PHYS 2311, PHYS 3321, and MATH 3318 or permission of the instructor.

4324. ADVANCED ELECTRICITY AND MAGNETISM (3-0) 3 hours credit. Electromagnetic phenomena based on Maxwell's equations and particle-field interactions. Prerequisite: PHYS 3321 or permission of the instructor.

4325. SOLID STATE PHYSICS (3-0) 3 hours credit. 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.

4326. INTRODUCTION TO QUANTUM MECHANICS (3-0) 3 hours credit. Schrödinger's equation and implications, the free particle, the one-electron atom, the potential barrier, and perturbation theory. Prerequisite: PHYS 4319 or permission of the instructor.

4393. HONORS THESIS IN PHYSICS (3-0) 3 hours credit. 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.

Academic credit will be given for these courses unless the student files a pass-fail request at the beginning of the semester.

The Department of Psychology

313 Life Science Bldg. • Box 19528 • 817-272-2281 • www.uta.edu/psychology
Academic Advising: 320 Life Science Bldg. • 817-272-3238

The Department of Psychology offers two programs of study leading to the bachelor's degree and a certification program for secondary teaching in psychology. 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 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 pre dental 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. Students interested in teaching certification in psychology and other educational specialities should see the School of Education section in this catalog.

Courses of general interest to the academic community include the following, which have no prerequisites:

- 1315. Introduction to Psychology
- 2351. Computer Literacy for the Behavioral Sciences
- 2317. Basic Concepts in Human Sexuality
- 3301. Psychology of Human Relations
- 3303. Drugs and Behavior

Restrictions: Psychology courses, except those cross-listed with biology, cannot be used to fulfill any of the science requirements.

Requirements for a Bachelor of Science Degree in Psychology

English

Six hours of composition.

Literature

Three hours from English or a modern language.

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

Computer Literacy*

PSYC 2351 or any equivalent course. Alternatively, the requirement may be met by taking the departmental computer literacy examination or the university computer competency test.

Oral Communication Competency

PSYC 4155, SPCH 1301, SPCH 2305, SPCH 3302 or equivalent courses approved by the Undergraduate Advisor.

Modern Language*

Six hours from the Cultural Studies List posted outside the Psychology Department Office and in the Handbook for Psychology Majors or levels III and IV of a modern language.

Mathematics*

1323 or 1325 and 1426, plus three hours above the freshman level.

Political Science

2311 and 2312 or any six hours meeting the legislative requirement.

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, sociology, classical studies, or linguistics.**

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 1301, 1302, and 1284, or GEOL 1425 and an additional 4-hour GEOL course with laboratory, or PHYS 1443 and 1444, or PHYS 1441 and 1442

Major

35 hours to include 1315 or equivalent; 2441; 2442; one four-hour lab/lecture from each of the Groups I, II, and III; one three-hour lecture course from each of the Groups I, II, III; (4355 may be substituted for one of the lectures in Groups I, II, III).

Lab/Lectures (four hours)

- I. 3315 + 3144.
- II. 3326 + 3146; 3420, 4322 + 3142.
- III. 3431, 4334 + 3145.

Lectures (three hours)

- I. 3310, 3311, 3312, 3313, 3314, 3315, 3316, 3317, 3318, 4310.
- II. 3320, 3326, 3328, 4322, 4325, 4327, 4329.
- III. 4332, 4333, 4334, 4337, 4338, 4339.

Other advanced electives: 3301, 3302, 3303, 3306, 3352, 4306, 4356, 4359 and Individual Study Courses.

Minor

18 hours, including six hours of 3000/4000-level courses.

Electives***

Sufficient hours to complete the total required for the degree.

Total

128 hours, of which at least 36 must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA), ROTC, or marching band as required.

* Prerequisites may add hours to the total required for the degree.

** Psychology majors may not use psychology courses to meet this requirement.

*** A science minor releases 15 additional hours for electives.

Suggested Course Distribution

First Two Years: PSYC 1315, 2441, 2442; ENGL 1301, 1302, 3 hours literature; Political Science, 6 hours; American History, 6 hours; Modern Language or substitute, 6 hours; Mathematics, 10 hours;

Natural Science, 8 hours; Minor and Electives, 3 hours; Computer Literacy, 3 hours; EXSA or ROTC or Marching Band.

Second Two Years: Psychology, 24 hours at 3000/4000 level, 4155; Liberal Arts Elective, 3 hours; Social/Cultural Studies, 3 hours; Fine Arts, 3 hours; Natural Science, 8 hours; Minor and Electives, 24 hours.

Requirements for a Bachelor of Arts Degree in Psychology

English

Six hours of composition.

Literature

Three hours from English or a modern language.

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 Language

14 hours in a single modern language or eight hours in a language plus six hours from one area cluster (see substitution list in introductory information for the College of Science).

History

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

Computer Literacy*

PSYC 2351 or three hours from any equivalent course. Alternatively, the requirement may be met by taking a departmental computer literacy examination or the University computer competency test.

Oral Communication Competency

PSYC 4155, SPCH 1301, SPCH 2305, SPCH 3302 or equivalent courses approved by the Undergraduate Advisor.

Mathematics*

Six hours: 1302 or 1315, and 1303 or 1316 or 3316; or 1324 and 1325.

Political Science

2311 and 2312 or any six hours meeting the legislative requirement.

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, sociology, classical studies, or linguistics.**

Natural Science

Eight hours from one of BIOL 1333, 1334, 1282; CHEM 1445 and 1446; GEOL 1435 and 1436; PHYS 1401 and 1402, or any sequence listed in Other Science in the Bachelor of Science degree in psychology, plus three hours in Science or approved Social Science or other designated courses.**

Major

31 hours to include 1315 or equivalent; 2441; 2442; two four-hour lab/lecture courses; one three-hour lecture course from each of the Groups I, II, III; (4355 may be substituted for one of the lectures in Groups I, II, III). For the definition of Groups I, II, III, see the Bachelor of Science degree in psychology.

Minor

18 hours including six hours of 3000/4000-level courses.

Electives

Sufficient hours to complete the total required for the degree.

Total

120 hours, of which at least 36 must be 3000/4000 level, plus exercise and sport activities (EXSA/DNCA), ROTC, or marching band as required.

* Prerequisites may add hours to the total required for the degree.

** Psychology majors may not use psychology courses to meet this requirement.

Suggested Course Distribution

First Two Years: PSYC 1315, 2441, 2442; ENGL 1301, 1302, 3 hours literature; Political Science, 6 hours; American History, 6 hours; Modern Language, 8 hours; Mathematics, 6 hours; Natural Science, 8 hours; Minor, 3 hours; Computer Literacy, 3 hours; EXSA or ROTC or Marching Band.

Second Two Years: Psychology, 20 hours at 3000/4000 level, 4155; Liberal Arts Elective, 3 hours; Modern Language or substitutes, 6 hours; Social/Cultural Studies, 3 hours; Fine Arts, 3 hours; Natural Science, 3 hours; Minor and Electives, 21 hours.

Dual Degree Plan: Combined Bachelor of Arts in Psychology and Master of Psychology with Industrial/Organizational Emphasis

The five-year curriculum prepares undergraduate students for careers in industrial/organizational psychology. Such careers typically require a masters degree and this program will allow students to gain this credential in an expeditious fashion, without sacrificing the objectives of a broad undergraduate education. Students are required to take undergraduate courses from behavioral and natural sciences, business and liberal arts, and graduate courses in psychology and management. This study will culminate in a Bachelor of Arts and Masters Degree in Psychology, with emphasis on industrial/organizational psychology. Both degrees will be awarded simultaneously when the 5-year curriculum is completed. Undergraduates must apply for admission into the graduate program in psychology after completing their third year of study, prior to taking any graduate-level courses. If a student entering the program is not accepted into the graduate program, or if the student fails to complete the required curriculum he or she must complete all requirements for the BA in psychology as specified in the Undergraduate Catalog in order for the BA degree to be conferred. Courses from the College of Business Administration may be used to satisfy the requirements of a minor area of study.

Description

A master's degree with a specialization in industrial-organizational psychology is necessary for persons seeking positions as industrial-organizational psychologists. The program enables students to earn this credential and effectively complete for employment. Industrial-organizational psychologists work in many different areas that are crucial to the success of modern businesses and industries. The ability

of industrial-organizational psychologists to meet these needs grows from training that enables them to apply psychological principles and research methods in the workplace. The program provides rigorous course work in experimental design, quantitative methods, and modern psychological and management theory. This training enables our graduates to be strong competitors for employment and perform effectively in the workplace.

Career Opportunities

Many career opportunities exist for industrial-organizational psychologists. Some individuals are hired on a full-time basis while others work as consultants. Industrial-organizational psychologists contribute to the success of businesses and industries in many different ways. For example, they might be involved in research on strategies for improving productivity, on issues concerning product marketing, or in developing employee screening, hiring and retention practices. They may also be involved in employee training and counseling. The modern marketplace has put pressure on businesses and industries to optimize productivity and improve the quality of work life. Additionally, competition among organizations to obtain and retain the most able employees has increased dramatically. Industrial-organizational psychologists, who can design, implement and evaluate efforts aimed to meet these challenges, are in demand.

Admission to the Five-Year Program

The joint program is intended for superior students in psychology who wish to pursue careers in industrial-organizational psychology. The psychology faculty evaluates potential candidates for the program. Juniors enrolled in the BA degree program in psychology, who have completed PSYC 2442 plus at least two 3000 or higher level psychology courses at U.T. Arlington, may apply. The minimal requirements for admission also include the following: 1) students must have and maintain an overall grade point average of at least 3.2, and a 3.4 average in undergraduate psychology courses. 2) students must take the GRE by the end of their junior year and earn a score of at least 1000 (with scores of at least 500 on both the verbal and quantitative sections). Students should apply for advanced admission prior to beginning their senior year and before taking any graduate courses. Admission is competitive, and meeting the minimum requirements will not ensure acceptance into the program. Upon the recommendation of the psychology faculty, other students may be considered for admission to the joint program if they meet the general admission requirements of the Graduate School.

Course Requirements

English (6 hours)

1301, 1302

Literature (3 hours)

Three hours from English or a modern language.

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.

Modern Language (14 hours)

14 hours in a single modern language or eight hours in a language plus six hours from one area cluster (see substitution list in introductory information for the College of Science).

History (6 hours)

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

Computer Literacy (3 hours)

PSYC 2351 or BUSA 2303.

Oral Communication Competency (3 hours)

SPCH 3302 or equivalent courses approved by the Undergraduate Advisor.

Mathematics (6 hours)

1315, 1316.

Political Science (6 hours)

2311 and 2312 or any six hours meeting the legislative requirement.

Fine Arts (3 hours)

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

Social/Cultural Studies (3 hours)

ECON 2306.

Natural Science (8 hours)

Eight hours from one of: BIOL 1333, 1334, 1282; CHEM 1445 and 1446; GEOL 1435 and 1436; PHYS 1401 and 1402 or any sequence listed in Other Science in the Bachelor of Science degree in psychology.

Management (3 hours)

MANA 3320.

Undergraduate Major (28 hours)

To include PSYC 1315 or equivalent; PSYC 2441 or BUSA 3321, PSYC 2442; two four-hour lab/lecture courses; one three-hour lecture course from each of Groups I, II, and III (4355 may be substituted for one of the courses in Groups I, II, or III). For the definition of Groups I, II, III, see the Bachelor of Science degree in psychology.

Graduate Courses

Psychology Core

PSYC 5405, 5406, 5322, 5323, 5324, 53zz (Capstone Course), 56xx (Internship)

Choose One

PSYC 5355 or PSYC 5344

Choose One

PSYC 5321 or one of the following, PSYC 5313, 5331, 5341, 5345, or other approved 3 hour Psychology elective.

Total Graduate Hours in Psychology: 32

Management Core

*MANA 5312, 5340, 5341

Three of the following:

MANA 5321, 5323, 5325, 5326, 5327, 5334, 5342

*MANA 3320, taken as an undergraduate, may be substituted for MANA 5312.

Total Graduate Hours in Management: 18-21

Total Graduate Hours in Psychology and Management

Combined: 50-53

Suggested Course Distribution

First Two Years: PSYC 1315, 2441 or BUSA 3321, PSYC 2442; ENGL 1301, 1302, 3 hours literature; Political Science, 6 hours; American History, 6 hours; Modern Language, 8 hours; MATH 1315, 1316; Natural Science, 8 hours; PSYC 2351 or BUSA 2303; ECON 2306; Liberal Arts elective, 3 hours; EXSA, ROTC or Marching Band.
Total Hours: 63; 15 to 16 hours per semester, excluding EXSA

Third Year: 17 hours in Psychology at 3000/4000 level, (an undergraduate psychology course in I/O may be substituted for one of the area I, II or III lecture courses); SPCH 3302; Modern Language or substitutes, 6 hours; Fine arts, 3 hours; MANA 3320*.

Total Hours: 32, 16 hours per semester

(Students must apply for early admission to the Graduate School and the Psychology Department after completing the first three years of study in order to earn a master's degree within five years).

Fourth Year: PSYC 5405, 5406, 5324, 5323; (MANA 5312 if MANA 3320 has not been taken as an undergraduate), MANA 5334, 5340.

Total Hours: 20-23, 10-12 hours per semester

Summer after the Fourth Year: PSYC 56xx (internship).

Total Hours: 6

Fifth Year: PSYC 5322, 5344 or 5355, 53zz (Capstone course); at least one of the following courses: PSYC 5321, 5313, 5331, 5341, 5345; MANA 5341; and 3 of the following courses: MANA 5321, 5323, 5327, 5325, 5326, 5334, 5342.

Total Hours: Approximately 24, 12 hours per semester

Dual Degree Plan: Combined Bachelor of Arts in Psychology and a Master of Business Administration

To facilitate the career path followed by many psychology undergraduates, the five-year curriculum culminates in the award of both a BA in psychology and an MBA from the College of Business Administration upon successful completion. Students following this program will be uniquely qualified to work in a variety of different environments. As undergraduates, such students will receive broad training in the liberal arts and specialized training in psychology, which will enhance their understanding of the dynamics of human action while fostering research and analytical skills. These skills will be further refined and combined with specialized undergraduate and graduate course work offered by the College of Business Administration, producing a well-rounded MBA professional who is prepared to meet the challenges of modern business.

Both degrees will be awarded simultaneously when the 5-year curriculum is completed. If students entering this program are not accepted into the MBA program, or if they fail to complete the requirements of this joint program for the MBA, they must instead complete all requirements for the BA in psychology as specified in the Undergraduate Catalog in order for the BA degree to be conferred. Courses taken from the College of Business Administration may be used to satisfy the requirements of a minor area of study.

Description

Many psychology students seek careers in business or industry following graduation and this program seeks to prepare them to compete effectively for jobs requiring an MBA degree. Psychology students should be particularly effective in this line of work. In some aspects, the study of psychology shares much in common with study in the liberal arts. Among communication and other skills, it fosters perspectives in the social, intellectual and emotional context in which people live and work, which are valuable traits in those seeking managerial roles in the workplace.

However, the study of psychology also strongly emphasizes development of logical, scientifically-based, data-oriented, decision-making skills that are potentially highly applicable to many problems confronted by people and organizations. Thus, a psychology student possesses a combination of perspectives and skills that is difficult to find in other students.

Career Opportunities

The program readies a person to meet the changing needs and opportunities existing in the private and public sectors of our economy. To do so effectively requires specialist skills and a client-oriented focus. This program aims to impart the full spectrum of skills and perspectives required of the professional MBA by coupling the undergraduate study of psychology with basic and advanced study of business management. Such study will also provide students planning to pursue other, related careers, with a solid foundation in the behavioral sciences and business.

Admission to the Joint Program

The joint program is intended for superior students in psychology who wish to pursue careers in business administration. The psychology faculty evaluates potential candidates for the program. Second or third year students enrolled in the BA degree program in psychology, who have completed PSYC 2442 plus at least two 3000 or higher level psychology courses at U.T. Arlington may apply. The minimal requirements for admission include: 1) students must have and maintain an overall grade point average of at least 3.2, with no grade lower than a B in undergraduate psychology and business courses. 2) students must take the GMAT by the end of their third year and earn a score of at least 500 (with at least 30% on both the verbal and quantitative sections). 3) students should apply for advanced admission prior to the beginning of their senior year before taking any graduate business courses. Admission is competitive, and meeting the minimum requirements will not ensure acceptance into the program. Upon the recommendation of the Psychology faculty, other students may be considered for admission to the joint program, as long as they meet the general admission requirements of the Graduate School.

Course Requirements

English (6 hours)

1301, 1302

Literature (3 hours)

Three hours from English or a modern language.

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.

Modern Language (14 hours)

14 hours in a single modern language or eight hours in a language plus six hours from one area cluster (see substitution list in introductory information for the College of Science).

History (6 hours)

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

Computer Literacy (3 hours)

PSYC 2351 or BUSA 2303.

Oral Communication Competency (3 hours)

SPCH 3302 or equivalent courses approved by the Undergraduate Advisor.

Mathematics (6 hours)

1315, 1316.

Political Science (6 hours)

2311 and 2312 or any six hours meeting the legislative requirement.

Fine Arts (3 hours)

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

Social/Cultural Studies (3 hours)

ECON 2306.

Natural Science (8 hours)

Eight hours from one of: BIOL 1333, 1334, 1282; CHEM 1445 and 1446; GEOL 1435 and 1436; PHYS 1401 and 1402 or any sequence listed in Other Science in the Bachelor of Science degree in psychology.

Major (31 hours)

To include PSYC 1315 or equivalent; PSYC 2441 or BUSA 3321, PSYC 2442, two four-hour lab/lecture courses; one three-hour course from each of Groups I, II, and III (4355 may be substituted for one of the courses in Groups I, II, or III. For the definition of Groups I, II, III, see the Bachelor of Science degree in psychology.

Business**Undergraduate (18 hours)**

BUSA 3321; MANA 3323, 3319; FINA 3313; MARK 3321, plus 3 approved Business elective hours.

Graduate (36 hours)

ACCT 5301, 5302
BUSA 5330 or 5337, 5325,
ECON 5313
plus 21 graduate level elective hours

Capstone (3 hours)

BUSA 5333 Business Policy

Suggested Course Distribution

First Two Years: PSYC 1315, 2441 or BUSA 3321, PSYC 2442; ENGL 1301, 1302, 3 hours literature; Political Science, 6 hours; American History, 6 hours; Modern Language, 8 hours; MATH 1315, 1316; Natural Science, 8 hours; PSYC 2351 or BUSA 2303; ECON 2306; BUSA 3321; MANA 3319; EXSA, ROTC or Marching Band.

Total Hours: 63; 15 to 18 hours per semester, excluding EXSA)

Second Two Years: Psychology, 20 hours at 3000/4000 level, SPCH 3302 (or equivalent course); Liberal Arts Elective, 3 hours; Modern Language or substitutes, 6 hours; Fine Arts, 3 hours; MANA 3319, 3323; FINA 3313; MARK 3321; 3 hour undergraduate business elective; ACCT 5301, 5302; ECON 5313; graduate level elective, 3 hours (5000 level courses are to be taken in the fourth year of study).

Total Hours: 62, 15 to 18 hours per semester

Fifth Year: BUSA 5330 or 5337; 18 graduate elective hours; BUSA 5333

Total Hours: 27, 12 to 15 hours per semester

Total hours required to complete the degrees: 152 (113 undergraduate, 39 graduate) excluding EXSA/DNCA, marching band or ROTC as required.

Dual Degree Plan: Combined Bachelor of Arts in Psychology and Master of Health Care Administration

The five-year curriculum prepares students for careers in health care administration. Students are required to take courses from behavioral and life sciences, business, and liberal arts, culminating in a five-year Master of Science Degree in Health Care Administration (HCA), including a Bachelor of Arts degree in Psychology. The BA degree in Psychology will be awarded at the same time that the student receives the MS in Health Care Administration. If a student engaged in this joint degree program is not accepted into the HCA graduate program, or enters the HCA program and fails to complete the requirements for the masters degree in HCA, a BA degree in Psychology will not be awarded until the student has completed all courses required of students for a BA degree who are not enrolled in this dual degree program. Courses taken in Business may be used to satisfy the requirements of a minor area of study.

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 proposed 3-2 Psychology/Business Administration degree will help to fulfill this need. This degree program is designed to provide students with a strong background in the behavioral 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 and behavioral sciences and in health care administration. 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 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.

Admission to the Joint Program

The joint program is intended for superior students in Psychology who wish to pursue careers in Health Care Administration. The Psychology faculty will evaluate potential candidates for the program. Second or third year students enrolled in the BA degree program in Psychology, who have completed Psychology 2442 and at least two 3000 or higher level psychology courses at U.T. Arlington may apply. The minimum requirements for admission include: 1) Students must have and maintain an overall grade point average of 3.2, with no grade lower than a B in undergraduate psychology and business

courses. 2) Students must take the GRE by the end on their junior year and earn a score of at least 1000 (with scores of at least 500 on both the verbal and the quantitative sections). 3) Students should apply for advanced admission prior to the beginning of their senior year before taking any graduate business courses. Upon the recommendation of the Psychology faculty, other students not meeting these criteria may be considered for admission to joint program as long as they meet the general admission requirements of the Graduate School. Admission will be competitive, and meeting the minimum requirements will not ensure acceptance in the program.

Course Requirements

English (6 hours)

1301, 1302

Literature (3 hrs.)

Three hours from English or a modern language.

Liberal Arts Elective (3 hrs.)

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 Language (14 hrs.)

14 hours in a single modern language or eight hours in a language plus six hours from one area cluster (see substitution list in introductory information for the College of Science).

History (6 hrs.)

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

Computer Literacy (3 hrs.)

PSYC 2351 or BUSA 2303

Oral Communication Competency (3 hrs.)

SPCH 3302 or equivalent courses approved by the Undergraduate Advisor.

Mathematics (6 hrs.)

1315, 1316

Political Science (6 hrs.)

2311 and 2312 or any six hours meeting the legislative requirement.

Fine Arts (3 hrs.)

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

Social/Cultural Studies (3 hrs.)

ECON 2306 Microeconomics

Natural Science (8 hrs.)

Eight hours from one of BIOL 1333,1334,1282; CHEM 1445 and 1446; GEOL 1435 and 1436; PHYS 1401 and 1402 or any sequence listed in Other Science in the Bachelor of Science degree in psychology.

Major (31 hrs.)

To include 1315 or equivalent; 2441 (or BUSA 3321); 2442; two four-hour lab/lecture courses; one three-hour lecture course from each of Groups I, II, and III (4355 may be substituted for one of the courses in Groups I, II, or III. For the definition of Groups I, II, III, see the Bachelor of Science degree in psychology

Business

Undergraduate

MANA 3319

BUSA 3321 or PSYC 2441

12 hours of approved undergraduate Business electives at the 3000-4000 level

Graduate

ACCT 5301, 5302

HCAD 5301, 5302

Fifth Year

ECON 5333 or SOCW 6345

INSY 5330 or equivalent

INSY 5350

FINA 5315

HCAD 5390, 5399, 5399, 5399

Total Hours: Approximately 149 plus exercise and sports activities (EXSA/DNCA), Marching Band or ROTC as required.

Suggested Course Distribution

First Two Years: PSYC 1315, 2441 or BUSA 3321, PSYC 2442, ENGL 1301,1302, Literature, 3 hours; Political Science, 6 hours; American History, 6 hours; Modern Language, 8 hours; MATH 1315, 1316; Natural Science, 8 hours; PSYC 2351 or BUSA 2303; ECON 2306; MANA 3319; EXSA, or ROTC, or Marching Band.

Total Hours: 63, 15-16 hours per semester, excluding EXSA

Second Two Years: Psychology, 20 hours at 3000/4000 level; SPCH 3302 (or equivalent course); Liberal Arts Elective, 3 hours; Modern Language or substitutes, 6 hours; Fine Arts, 3 hours; Approved Business electives, 12 hours; ACCT 5301, 5302; HCAD 5301, 5302, (the last 4 courses are to be taken in the fourth year of study)

Total Hours: 59, approximately 15 hours per semester

Fifth Year: ECON 5333 or SOCW 6345; INSY 5330, 5350; FINA 5315; HCAD 5390, 5399, 5399,5399.

Total hours: 24 hours, 12 hours per semester

Teacher Certification

Psychology majors who desire certification for teaching at the secondary level must fulfill the requirements for a second teaching field and complete the certification program as prescribed in the School of Education section of this catalog.

Students majoring in other subjects who select psychology as a second teaching field should complete the Psychology Teaching Field. Interested students should refer to the School of Education section of this catalog for teacher certification requirements.

Acceptance Requirements for a Major in Psychology

In addition to requirements specified for all potential majors within the College of Science, those planning to major in Psychology must successfully complete a course in college algebra or higher and PSYC 2441 or BUSA 3321 before they will be admitted as Psychology majors. Students must fulfill this requirement by the time they complete 45 hours in residence.

Multiple Majors

To qualify psychology as part of a multiple major, it is only necessary to complete the requirements for a B.S. major or a B.A. major in psychology, plus the requirements for another major. The speci-

fied requirements in another major B.A. or B.S. field will stand in lieu of a minor. 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 BA or BS 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 BA or BS degree.

Qualified students or students who believe they may qualify should contact the undergraduate advisor as soon as possible after completing PSYC 2442.

Psychology Course Numbering

The Department of Psychology has numbered its advanced (3000/4000 level) courses so that the third digit of the course number gives its distribution cluster. If the third digit of the course number is 1, 2, or 3, it indicates a Group I, II, or III course, respectively.

Department of Psychology Faculty

Chair

Professor Paulus

Professors

Amster, Bernstein, Erickson,

Ickes, Levine, Mellgren

Associate Professors

Jackson, Jensen-Campbell, Kopp, Mann

Assistant Professors

Fuchs, Hillstrom, Peng, Pool

Adjunct Professor

Gorfein

Psychology (PSYC)

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

1315. INTRODUCTION TO PSYCHOLOGY (3-0) 3 hours credit (PSYC 2301). The fundamental methods and content of scientific psychology. Concentration on the understanding of basic principles.
2310. BEHAVIOR ANALYSIS AND MODIFICATION (3-0) 3 hours credit (PSYC 2320). 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.

2317. BASIC CONCEPTS IN HUMAN SEXUALITY (3-0) 3 hours credit (PSYC 2306). The physiological, psychological, and sociological aspects of human sexuality. Also offered as BIOL 2317 and HEED 2317; credit will be granted for only one of these three courses. Students seeking Certification in Health must enroll in HEED 2317. Students seeking credit toward the science requirement must enroll in BIOL 2317.

2351. COMPUTER LITERACY FOR THE BEHAVIORAL SCIENCES (3-0) 3 hours credit. Exposure to contemporary PC microcomputers. Topics include: computer architecture, operating systems, ASCII editors, word processors, spreadsheets, graphics, data bases, presentation graphics, programming languages, statistical programming, using library resources, networking, the Internet, e-mail, ftp, and Telnet.

2441. PSYCHOLOGICAL STATISTICS (3-2) 4 hours credit. Scientific sampling, measures of central tendency and dispersion, time series, reliability and validity, testing of hypotheses, and linear correlation. Major emphasis on statistical inference and interpretation. Prerequisite: MATH 1302 or equivalent.

2442. EXPERIMENTAL PSYCHOLOGY: RESEARCH METHODOLOGY (3-2) 4 hours credit. Theoretical and practical problems of research methodology and techniques of reporting research. Prerequisites: PSYC 1315, 2441.

Admission to Upper-Level Laboratory Courses: To enroll in the upper-level laboratory courses, (PSYC 3142, 3144, 3145, 3146, and 3420, 3431), the student must have a grade point average of 2.0 in PSYC 2441 and 2442 or equivalent courses.

3142. LABORATORY IN PHYSIOLOGICAL PSYCHOLOGY (0-3) 1 hour credit. Research methodologies employed in the study of the biological bases of behavior. Must have completed or be concurrently enrolled in PSYC 4322. Prerequisite: PSYC 2442.

3144. SOCIAL PROCESSES LABORATORY (0-3) 1 hour credit. Laboratory study and field research of social behavior and critical evaluation of methodologies. Prerequisite: PSYC 2442, and PSYC 3315 or concurrent registration.

3145. COGNITIVE PROCESSES LABORATORY (0-3) 1 hour credit. Laboratory study of cognitive processes and critical evaluation of methodologies. Prerequisites: concurrent registration in, or prior completion of, PSYC 4334 and completion of computer literacy requirement.

3146. LABORATORY IN ANIMAL BEHAVIOR (0-3) 1 hour credit. 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 2442.

3301. PSYCHOLOGY OF HUMAN RELATIONS (3-0) 3 hours credit. Topics of conflict resolution, interpersonal relations, psychological aspects of criminology and law, influence and attitude change.

3302. SURVEY OF INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY (3-0) 3 hours credit. 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. Prerequisite: PSYC 1315.

3303. DRUGS AND BEHAVIOR (3-0) 3 hours credit. Psychoactive agents, their therapeutic uses, and social abuses. Alcohol, nicotine, caffeine, narcotics, hallucinogens, stimulants, and tranquilizers. Also listed as HEED 3303 and BIOL 3303; credit will be granted only once under present and former numbers. Students seeking Certification in Health Education must enroll in HEED 3303.

3306. PSYCHOLOGY OF CREATIVITY AND CREATIVE THINKING (3-0) 3 hours credit. 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.

3310. DEVELOPMENTAL PSYCHOLOGY (3-0) 3 hours credit. Human development and growth from conception through old age, concerned with the physical, behavioral, and social aspects. Prerequisite: PSYC 1315.

3311. ADULTHOOD AND AGING (3-0) 3 hours credit. 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.

3312. INFANCY AND EARLY CHILDHOOD (3-0) 3 hours credit. A survey of physical, cognitive, and socioemotional development from conception through early childhood. Prominent developmental theories, and how they attempt to describe and explain developmental changes, will be discussed. Prerequisite: PSYC 1315.

3313. PSYCHOLOGY OF WOMEN (3-0) 3 hours credit. Roles, abilities, and personality characteristics of women in our society are compared with those of men. Empirically-measured traits and environmental conditions associated with women are studied with regard to biological and social causation. The relationship between gender roles and biological sex are studied with regard to normal and abnormal characteristics. This course is of interest to both men and women. Prerequisite: PSYC 1315.

3314. PSYCHOLOGY OF PERSONALITY (3-0) 3 hours credit. The major theories, assessment methods, and research in the field of personality. Prerequisite: PSYC 1315.

3315. SOCIAL PSYCHOLOGY (3-0) 3 hours credit. 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.

3316. ENVIRONMENTAL PSYCHOLOGY (3-0) 3 hours credit. 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.

3317. INTRODUCTION TO CLINICAL AND COUNSELING PSYCHOLOGY (3-0) 3 hours credit. The student is introduced to psychodiagnostic procedures and the basic approaches of counseling and psychotherapy. Prerequisite: PSYC 1315.

3318. ABNORMAL PSYCHOLOGY (3-0) 3 hours credit. Major forms of psychopathology. Classification, etiology, and treatment of major disorders. Prerequisite: PSYC 1315.

3320. BEHAVIOR AND MOTIVATION (3-0) 3 hours credit. Theory and research involving relation of motivation and emotion to learning theory, social behavior, personality, and development. Prerequisites: PSYC 1315.

3326. ANIMAL BEHAVIOR (3-0) 3 hours credit. Research and theory comparing behavior at various phyletic levels. Also listed as BIOL 3326. Credit will be granted for only one of these courses. PSYC 3146 is an optional laboratory, which, when taken concurrently with or after completion of PSYC 3326, satisfies a portion of the laboratory requirement in Psychology. Prerequisite: PSYC 1315.

3328. BEHAVIORAL ENDOCRINOLOGY (3-0) 3 hours credit. 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. Prerequisite: PSYC 1315, or BIOL 4315.

3352. PRACTICUM IN ZOO RESEARCH METHODS (3-0) 3 hours credit. A hands-on introduction to research methodologies commonly used to collect behavioral and physiological data in zoos. Students will learn how to develop an ethogram, design data sheets, observe animals and collect data. These will be summarized, analyzed, interpreted, and presented in both written and oral form. Prerequisites: PSYC 2441, 2442, and 3326 or their equivalent, plus permission of the instructor. Also listed as BIOL 3360; credit will be granted only once.

3420. EXPERIMENTAL ANALYSIS OF BEHAVIOR (3-3) 4 hours credit. 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 2442.

3431. SENSORY AND PERCEPTUAL PROCESSES (3-3) 4 hours credit. Major phenomena in sensation, perception, and human performance. Laboratory experiments in signal detection, visual masking, memory search, absolute judgments, reaction time, pattern recognition, and division of attention. Prerequisite: PSYC 2442 and completion of computer literacy requirement.

4155. ORAL COMMUNICATION SKILLS IN PSYCHOLOGY (1-0) 1 hour credit. 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: Completion of PSYC 3315 and 3144 or PSYC 3326 and 3146 or 3420 or PSYC 4322 and 3142 or PSYC 3431 or PSYC 4334 and 3145.

4306. MAJOR PERSONALITY DISORDERS (3-0) 3 hours credit. 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. Prerequisites: PSYC 1315 and PSYC 3314 or 3318.

4310. APPLIED BEHAVIOR ANALYSIS (3-0) 3 hours credit. A systematic review of techniques for dealing with human problems using the methodology of behaviorism. Developmental disabilities,

personal adjustment, social learning, human competence, political control, and economic and ecological problem-solving. Prerequisites: PSYC 1315 and junior standing.

4322. PHYSIOLOGICAL PSYCHOLOGY (3-0) 3 hours credit. 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 4332, satisfies a portion of the laboratory requirement. Prerequisite: PSYC 1315.

4325. DEVELOPMENTAL PSYCHOBIOLOGY (3-0) 3 hours credit. 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. Prerequisite: PSYC 3310 or 4322, or BIOL 3346.

4327. BEHAVIORAL GENETICS (3-0) 3 hours credit. 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. Prerequisite: PSYC 2441 or BIOL 3315.

4329. ANIMAL LEARNING AND COGNITION (3-0) 3 hours credit. A comprehensive survey of psychological, biological, and ethological perspectives on learning, memory, and cognition in animals. Prerequisite: PSYC 2442.

4332. THEORIES OF HUMAN LEARNING AND MEMORY (3-0) 3 hours credit. 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 2442.

4333. COGNITIVE SCIENCE AND ARTIFICIAL INTELLIGENCE (3-0) 3 hours credit. Research and theory on the organization of the mind and of cognitive processes, drawing on ideas from psychology, neuroscience, linguistics, philosophy, and computer science. Applications of computer modeling techniques to the simulation of cognitive processes will be explored. Prerequisites: PSYC 3431 or 4334 and computer literacy, or permission of the instructor.

4334. COGNITIVE PROCESSES (3-0) 3 hours credit. Current theory and research in cognitive processes such as memory, information processing, concept formation, and problem solving. Prerequisite: PSYC 2442.

4337. PSYCHOLOGY OF TESTING (3-0) 3 hours credit. 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. Prerequisites: PSYC 1315 and 2441 and completion of computer literacy requirement.

4338. COGNITIVE NEUROPSYCHOLOGY (3-0) 3 hours credit. 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.

4339. PSYCHOLOGY OF JUDGMENT AND CHOICE (3-0) 3 hours credit. Research and theory on the errors of intuitive judgment and how formal decision methods improve choices. Prerequisite: PSYC 2441.

4355. THE HISTORY OF PSYCHOLOGY (3-0) 3 hours credit. The evolution of psychology as a science, up to and including contemporary developments. Prerequisite: nine hours of psychology.

4356. EVOLUTIONARY PSYCHOLOGY (3-0) 3 hours credit. 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. Prerequisites: PSYC 1315 and nine hours of psychology.

4359. SELECTED TOPICS IN PSYCHOLOGY (3-0) 3 hours credit. 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.

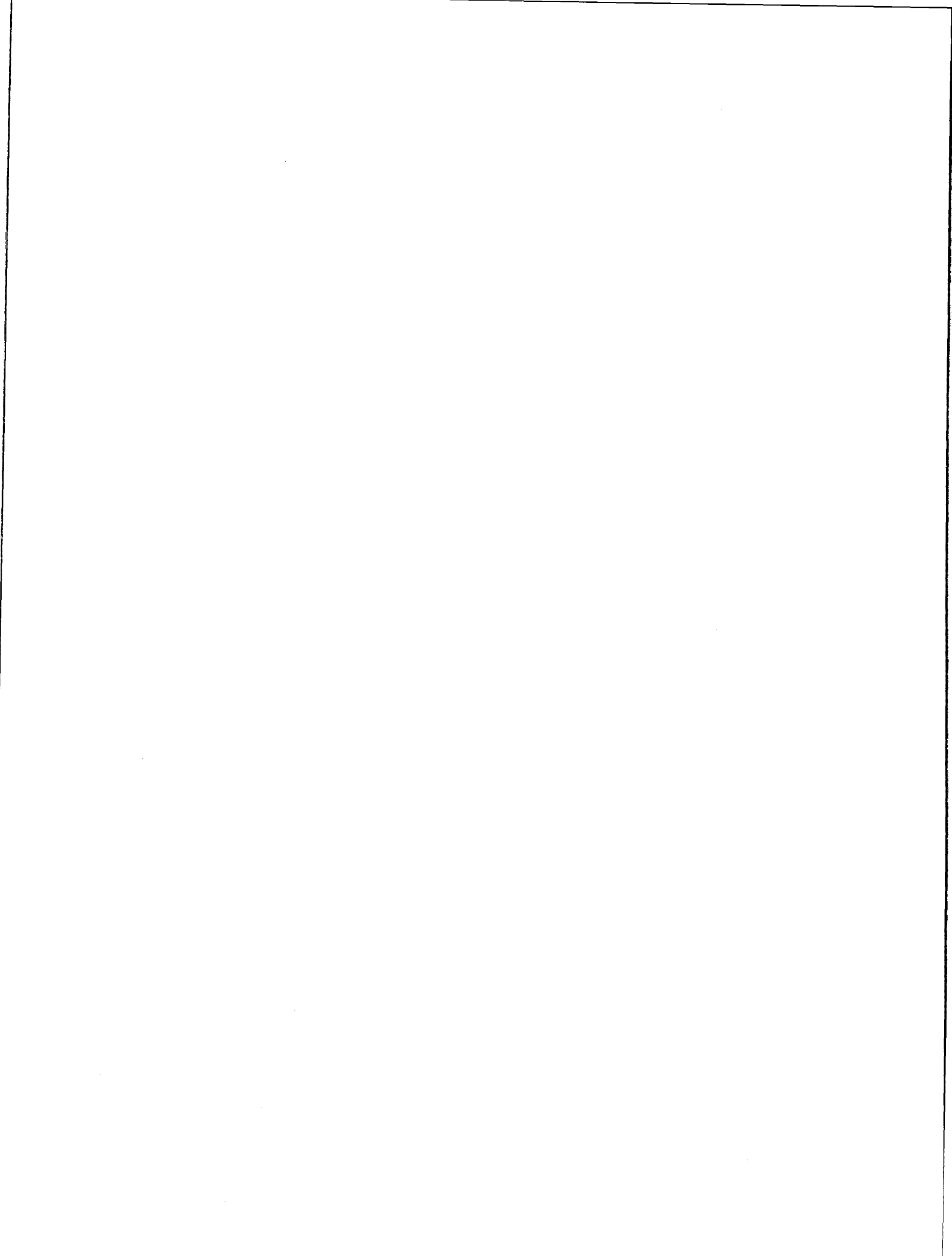
Individual Study Courses

3351. PRACTICUM IN APPLIED BEHAVIOR 3 hours credit. Students receive supervised experience in the application of behavior modification procedures to real-life problems. Practicum students serve as volunteer staff, working off-campus in a community setting. Provides an opportunity to develop skills in setting behavior objectives, analyzing contingencies of reinforcement, and designing, writing, and implementing practical behavior change programs. Prerequisites: PSYC 2310, 3440, or equivalent, plus permission of instructor.

4398. HONORS THESIS (3-0) 3 hours credit. 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.

4161, 4261, 4361. READINGS IN PSYCHOLOGY (Variable credit from 1 to 3 semester hours as arranged). 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.

4181, 4281, 4381. RESEARCH IN PSYCHOLOGY (Variable credit 1 to 3 semester hours as arranged). Research problems arranged on an individual basis, to be conducted by the student, and written in publishable journal format. Prerequisite: permission of instructor.





The School of Social Work

The School of Social Work

Dean: Santos H. Hernández, Ph.D.

211 S. Cooper St., Social Work Complex • Box 19129 • 817-272-3647 • www2.uta.edu/ssw • sswbsw@uta.edu

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

Six hours (level of college algebra or higher). Usually MATH 1302 and 1308 (or 1303).

Natural Science

BIOL 1333, 1334, and 1282 plus one biology elective (1301, 2311 or 2317).

Social/Cultural Studies

ANTH 1306 or 2322.

Fine Arts

ART, DNCE, MUSI or other as approved by advisor.

Modern Language

SPAN 1441, 1442, 2313, 2314. A substitute can be made for SPAN 2314 (though SPAN 2314 is preferred). The substitute must have multicultural content at the 3000 or 4000 level from ANTH, ENGL, HIST, SOCI (or SOCW 3317).

Economics

ECON 2337 (suggested) or 2305.

Computer

SOCW 3319, BUSA 2603, CSE 1301, or PSYC 2352.

Psychology

PSYC 1315, and an upper division course such as 3318 (or some other), but not 3310.

Speech

SPCH 1301 or approved substitute.

Sociology

SOCI 1311 and 3352.

Social Work

SOCW 2311, 2313, 3301, 3302, 3303, 3304, 3305, 3306, 4251, 4451, 4252, 4452.

Electives

Sufficient to give the 126 hours required for the degree.

Total

126 hours, at least 36 of which must be upper division courses (3000/4000 level). In addition to the 126 hours, four semesters of exercise and sport activities (EXSA/DNCA) are required (ROTC or marching band may be substituted).

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 1302; EXSA, ROTC or Marching Band—Total Credit 16 hours.

Second Semester: ENGL 1302; HIST 1312; BIOL 1334 and 1282; PSYC 1315; MATH 1308 (or 1303); EXSA, ROTC or Marching Band—Total Credit 18 hours.

Second Year

First Semester: English, 3 hours; POLS 2311; SPAN 1441; Fine Arts, 3 hours; SOCW 2311; EXSA, ROTC or Marching Band—Total Credit 17 hours.

Second Semester: English, 3 hours; POLS 2312; SPAN 1442; SOCW 2313; SPCH 1301; EXSA, ROTC or Marching Band—Total Credit 17 hours.

Third Year

First Semester: SOCW 3301; SOCW 3303; SPAN 2313; ECON 2337 (or 2305); SOCI 3352; PSYC, 3 hours—Total Credit 18 hours.

Second Semester: Anthropology, 3 hours; SOCW 3302; SOCW 3304; SPAN 2314 or approved substitute; Biology, 3 hours; SOCW 3305—Total Credit 18 hours.

Fourth Year

First Semester: SOCW 4251 and 4451; SOCW 3306; SOCW 3319 or CSE 1301—Total Credit 15 hours.

Second Semester: SOCW 4252 and 4452; Electives, 8 hours—Total Credit 14 hours.

Students applying for the BSW Program proceed through a two-step process. This allows students to assess their interest in and appropriateness for the social work profession. The process also provides an opportunity for social work faculty to assist students in this decision.

Provisional Admission to the BSW Program

Provisional admission to the BSW program requires:

- Overall GPA of 2.0 or better
- Completion of SOCW 2311 with a grade of C or better
- Completion of 40 hours of courses, including:
 - English 1301 and 1302
 - Math 1302 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 student's Social Work advisor. The materials will be reviewed by the advisor and a recommendation for or against Provisional Admission will be forwarded to the BSW Program Director. Students will be notified of their status within two weeks of the decision.

Provisional admission allows students to continue in the program and enroll in the following courses: SOCW 2313 and 3301, plus 3302 or 3303.

Progression to Full Standing

Acceptance as a Full Standing Social Work major requires:

- 3.0 average in all social work courses and no grade lower than a C
- Acceptable evaluations in all Social Work courses
- 2.25 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.

Transfer of Credit

BSW student transcripts are evaluated by the U.T. 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 U.T. Arlington. No credit is given for life or work experience.

Requirement for Liability Insurance

All social work students enrolling in Field Instruction courses (SOCW 4251, SOCW 4451, SOCW 4252, SOCW 4452, 4453 and 4853) 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 \$100,000,000 limit aggregate. 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.

Field Work Experience

The BSW Program requires two consecutive semesters of field experience in a single human-service agency. Each semester consists of 240 clock hours as a social work intern as well as concurrent enrollment in weekly, two-hour, on-campus seminar. Field placements are arranged early in the preceding spring or fall semester, after students are formally advised by BSW program advisors as to field eligibility. Students attend field-placement orientations and submit field-placement applications.

Assignment of students to field agencies is the responsibility of the school's director of field instruction and is based on agency instructional offerings and student educational needs. The final decision as to whether a particular student is placed in a particular agency rests with the agency. Although every possible effort is made to involve students in the placement process, students do not make the final decision as to where they are placed. All student assignments are tentative and contingent upon the student's professional interview with the agency.

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.

Computer and Oral Competencies

Social Work students will demonstrate competence in computer usage by successfully completing the required assignments for SOCW 3319, Technology Use in Social Work Practice, or by completing and passing the course. Alternatively, the requirement may be met by successful completion of PSYC 2351, CSE 1301, BUSA 2303, or a course approved by the academic advisor. Oral communication skills will be demonstrated by successful completion of SPCH 1301, or a suitable substitute.

School of Social Work Faculty

Dean

Professor Hernández

Undergraduate Program Director

Associate Professor Quinn

Professors

Callicutt, Dangel, Duehn, Elliott, Granvold, Hunter, Jordan, Mayadas, Mindel, Pillai, Schoech, Watts

Associate Professors

Barrett, Cobb, Hegar, Hofer, Scannapieco, Shannon, Yu

Assistant Professors

Diaz, Harris, Hickerson, Johnston, Lehmann, Rycraft, David Woody, Debra Woody

Specialists

Murphy, Pratt, Tuck

Social Work (SOCW)

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.

Prefix and number in parentheses following the U.T. Arlington course number and title is the Common Course Number designation.

2311. INTRODUCTION TO SOCIAL WORK (3-0) 3 hours credit (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.

2313. SOCIAL WORK PRACTICE I (3-0) 3 hours credit. 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.

3301. HUMAN BEHAVIOR AND THE SOCIAL ENVIRONMENT I (3-0) 3 hours credit. 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.

3302. HUMAN BEHAVIOR AND THE SOCIAL ENVIRONMENT II (3-0) 3 hours credit. 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.

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.

3304. SOCIAL WORK PRACTICE II (3-0) 3 hours credit. Theories and methodologies of social work assessment and intervention at the individual, family, and group levels in diverse settings. Prerequisites: SOCW 2311, SOCW 2313, and SOCW 3301. BSW majors only.

3305. SOCIAL WORK RESEARCH METHODS (3-0) 3 hours credit. 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. Prerequisites: SOCW 2311, SOCI 3352, or permission of the instructor.

3306. SOCIAL WORK PRACTICE III (3-0) 3 hours credit. 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. Prerequisites: SOCW 2311 and SOCW 2313. BSW majors only.

3317. HUMAN BEHAVIOR AND DIVERSE POPULATIONS (3-0) 3 hours credit. Introduction to theoretical, practical, 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. Prerequisites: SOCW 2311 and SOCW 2313.

3319. TECHNOLOGY USE IN SOCIAL WORK (3-0) 3 hours credit. Introduces basic computer concepts, spreadsheets, word processing, assessment and intervention software, graphics packages, and statistical packages and their application in social work.

4251. SOCIAL WORK FIELD SEMINAR I (2-0) 2 hours credit. Integration of theory and practice, based primarily on field instruction experiences. Prerequisites: SOCW 2311, 2313, 3301, 3302, 3304, and concurrent enrollment in SOCW 4451. BSW majors only.

4252. SOCIAL WORK FIELD SEMINAR II (2-0) 2 hours credit. Integration of theory and practice, based primarily on field instruction experiences. Prerequisites: SOCW 3303 or 3306, 4251, 4451, SOCI 3352; and concurrent enrollment in SOCW 4452. This course must be taken in the semester immediately following SOCW 4451. BSW majors only.

4310. SOCIAL WORK WITH CHILDREN AND FAMILIES (3-0) 3 hours credit. 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. Prerequisites: SOCW 2311 or consent of the instructor.

4350. SPECIAL ISSUES IN SOCIAL WORK (3-0) 3 hours credit. 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.

4191, 4291, 4391. CONFERENCE COURSE (Variable credit from 1 to 3 semester hours as arranged). Topics assigned on an individual basis covering personal research or study in designated areas. Prerequisite: permission of the instructor.

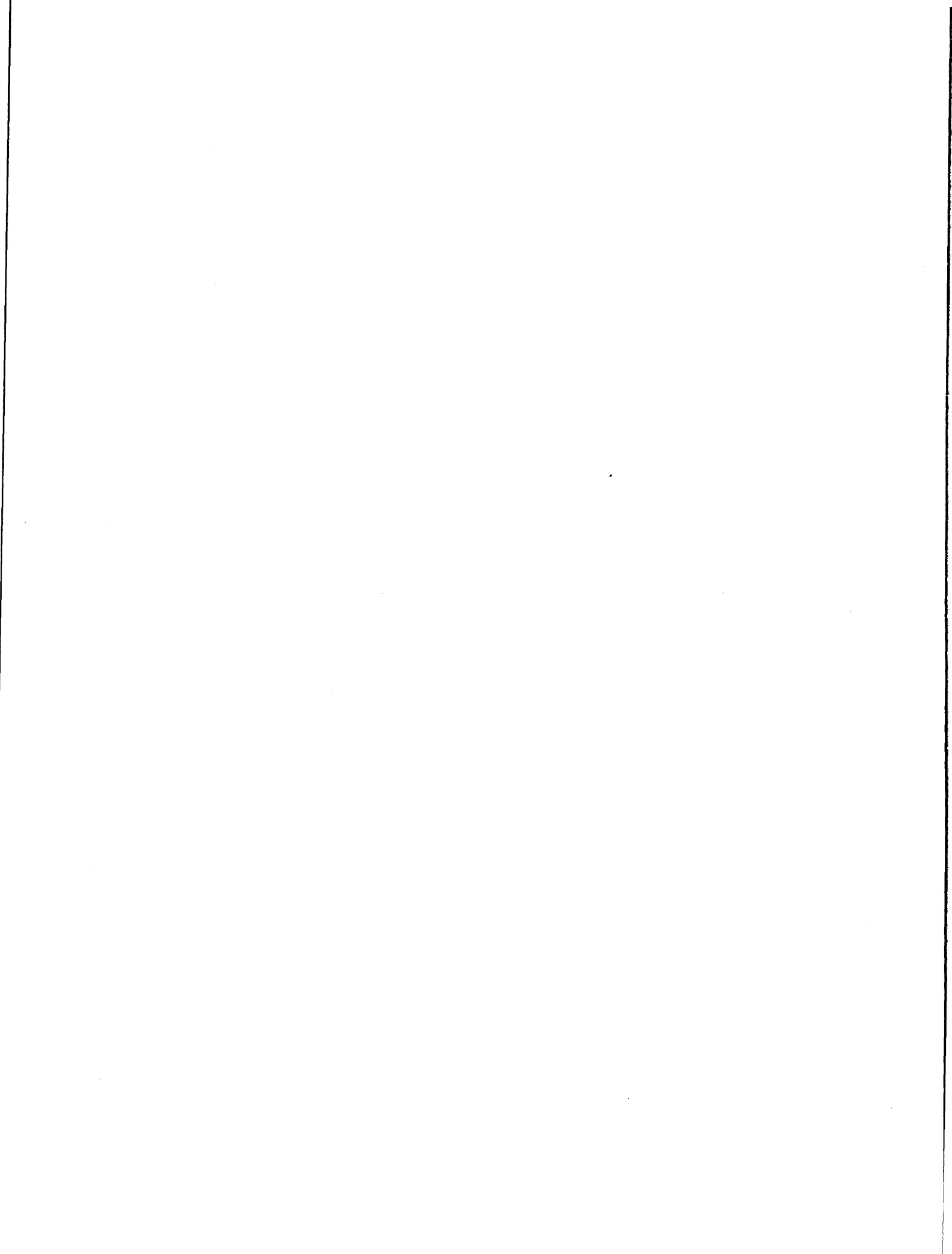
4451. SOCIAL WORK FIELD INSTRUCTION I (0-16) 4 hours credit. Supervised social work experience in a local human service agency. Integration of generalist practice concepts into professional practice experiences. The field placement requires a minimum of 240 clock hours in the agency. Prerequisites: SOCW 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.

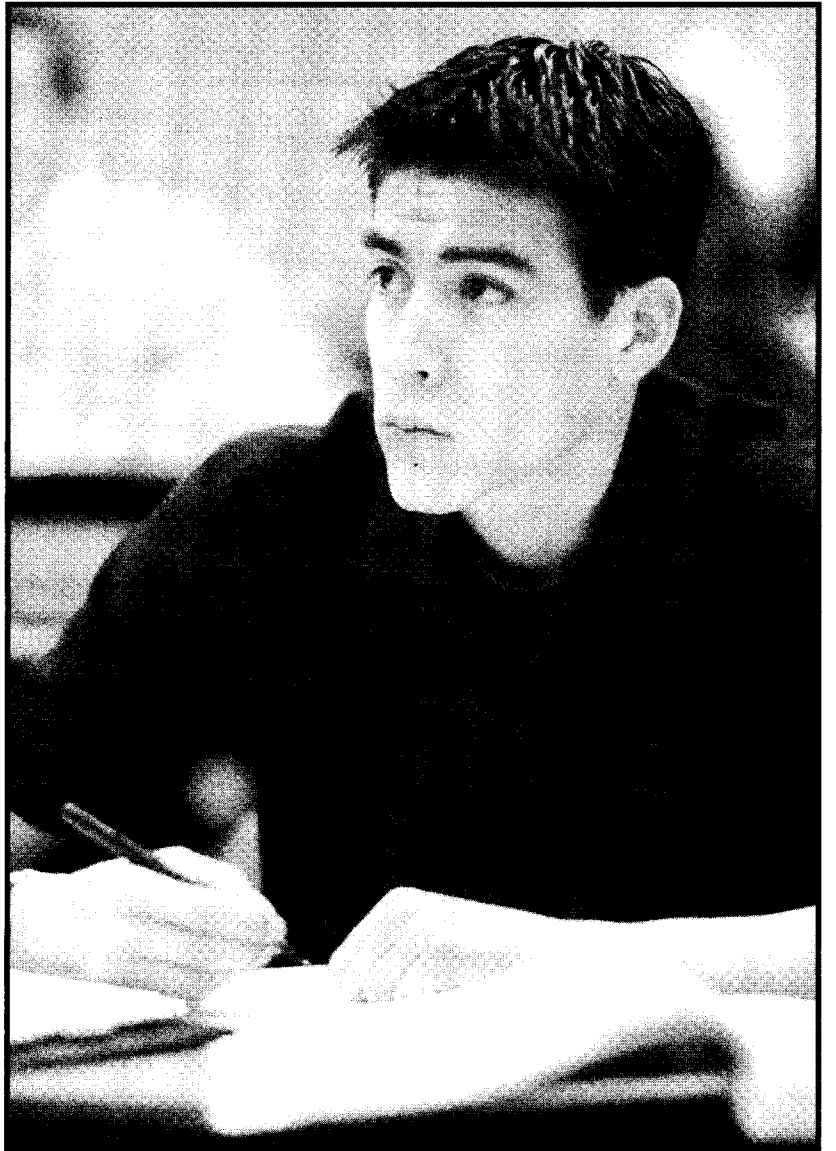
4452. SOCIAL WORK FIELD INSTRUCTION II (0-16) 4 hours credit. Supervised social work experience in a local human service agency. Integration of generalist practice concepts into professional practice experiences. The field placement requires a minimum of 240 clock hours in the agency. Prerequisites: SOCW 3303 or 3306, 4251, 4451, SOCI 3352. 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.

4453. SOCIAL WORK BLOCK FIELD SEMINAR (4-0) 4 hours credit. Integration of theory and practice, based primarily on field instruction experiences in a Child Protective Services agency. Here,

the field requirement is fulfilled in one semester via a CPS placement. Prerequisites: Acceptance into the Title IV-W Child Welfare Program, and concurrent enrollment in SOCW 4853.

4853. SOCIAL WORK BLOCK FIELD INSTRUCTION (0-8) 8 hours credit. Supervised social work experience in a Child Protective Services agency. Integration of generalist practice concepts into professional practice experiences. The field placement requires a minimum of 480 clock hours in the agency. Here, the field requirement is fulfilled in one semester via a CPS placement. Prerequisites: Acceptance into the Title IV-E Child Welfare Program, concurrent enrollment in SOCW 4453 and completion of SOCW 2311, 2313, 3301, 3302, 3303, 3304, 3305, 3306 and SOCI 3352.





The School of Urban and Public Affairs

The School of Urban and Public Affairs

Dean: Richard L. Cole, Ph.D.

501C University Hall • Box 19588 • 817-272-3071 • www.uta.edu/supa

The School of Urban and Public Affairs offers three undergraduate minors as follows:

1. Public Administration
2. Urban Planning and Environment
3. Urban Affairs and Public Policy

Each of these multidisciplinary minors is designed to focus on particular aspects of the urban experience and urban career opportunities. Students selecting any of these will complete eighteen hours of course work including URPA 1301 and URPA 3301 (as described below) plus twelve additional hours of support courses drawn from various departments and listed below. Students selecting one of these minors should consult first with the advisor in their department or program, then with the Director of Undergraduate Studies in the School of Urban and Public Affairs. Students completing any of these minors may petition to have six hours of credit applied to the appropriate masters degree in the School of Urban and Public Affairs.

Director of Undergraduate Studies: Guisette Salazar
Room 552 University Hall, 817-272-3302, salazar@uta.edu

Faculty

Dean

Professor Cole

Professors

Anjomani, Cornehl, Geisel,
Goldstein, Hissong, Taebel, Wyman

Associate Professors

Barrett, Bright, Wegner

Assistant Professors

Arvidson, Li, Salazar

Required Courses for Each Minor

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.

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 to be paid to the changing patterns of growth and demography occur-

ring 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.

Other Courses

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.

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.

Support Courses for the Public Administration Minor

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.

Accounting

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 2302.

Criminal Justice

CRCJ 3336. LAW ENFORCEMENT MANAGEMENT AND ADMINISTRATION (3-0) 3 hours credit. Examines the principles of administration, management, politics and leadership with emphasis on their applicability to law enforcement planning, organization, direction, control and personnel management.

CRCJ 4332. COMMUNITY CORRECTIONS (3-0) 3 hours credit. Evaluation of practices, issues and trends in community corrections. Emphasis is on the de-institutionalization movements, probation, parole, intermediate punishments, and other community alternatives to incarceration.

Economics

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) 3 hours credit. 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. R&D and the various regulatory controls placed on firms and industries. Prerequisite: ECON 2306.

ECON 4311. ECONOMICS FOR MANAGERS (3-0) 3 hours credit. 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 economics. Prerequisite: ECON 3206.

Management

MANA 3320. PERSONNEL/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. Prerequisite: MANA 3319.

Political Science

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 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 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.

Sociology

SOCI 3350. POWER AND BUREAUCRACY (3-0) 3 hours credit. The development, structure, and operation of formal organizations in society, with emphasis on internal processes, the effects of technology, and variations in the institutional setting. Prerequisite: junior standing or permission of instructor.

SOCI 3353. URBAN SOCIOLOGY (3-0) 3 hours credit. A comparative examination of metropolitan and other urban communities. Origins of urbanization, urbanization in America, urban lifestyles, and the problems of urban areas.

Support Courses for Urban Planning and the Environment Minor

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.

Architecture

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.

Biology

BIOL 2311. MAN AND ENVIRONMENT (3-0) 3 hours credit. Reviews some of the major problems facing man in our modern technological society. Topics addressed include population problems, resource depletion, and pollution.

City and Regional Planning

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.

Economics

ECON 3328. PRINCIPLES OF TRANSPORTATION (3-0) 3 hours credit. Impact of freight and passenger transport upon individual, business, and governmental decision making in an evolving, competitive world economy. Prerequisite: ECON 2306 or consent of instructor.

ECON 4302. ENVIRONMENTAL ECONOMICS (3-0) 3 hours credit. 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 economics. Prerequisite: ECON 2306.

History

HIST 3350. READING AND 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 3355; 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. UNITED STATES URBAN HISTORY (3-0) 3 hours credit.

The rise of the city from colonial times to the present, focusing on the economic base of urban expansion, the human ingredients, the social and cultural scene, the pattern of urban politics, urban services, municipal administration, and the image of the city in popular thought.

Political Science

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.

Psychology

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.

Real Estate

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: 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.

Sociology

SOCI 3343. POVERTY AND HOMELESSNESS IN AMERICA (3-0) 3 hours credit.

Major substantive issues related to poverty and homelessness; understanding the structural causes and the stigma of poverty. Problems of the working poor and homeless; community responses to these problems.

SOCI 3353. URBAN SOCIOLOGY (3-0) 3 hours credit.

A comparative examination of metropolitan and other urban communities. Origins of urbanization, urbanization in America, urban lifestyles, and the problems of urban areas.

SOCI 4318. SOCIAL CHANGE AND CONFLICT (3-0) 3 hours credit.

The sources of conflict and social change as an outgrowth of inequality. Movements arising out of such conflicts which attempt to bring about fundamental social change. Prerequisite: junior standing or permission of the instructor.

Support Courses for Urban Affairs and Public Policy Minor

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.

Criminal Justice

CRCJ 3380. ETHNIC AND GENDER ISSUES IN CRIMINAL 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.

Economics

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 3301. ECONOMICS OF HEALTH (3-0) 3 hours credit.

Determinants of health status; impact of economic forces on the health sector; demand for and supply of health services; role of competition; new organizational entities; the changing regulatory climate. Prerequisite: ECON 2306.

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.

History

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. UNITED STATES URBAN HISTORY (3-0) 3 hours credit.

The rise of the city from colonial times to the present, focusing on the economic base of urban expansion, the human ingredients, the

social and cultural scene, the pattern of urban politics, urban services, municipal administration, and the image of the city in popular thought.

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.

Political Science

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 3312. INTRODUCTION TO PUBLIC POLICY ANALYSIS (3-0) 3 hours credit. Concepts of public policy and problems of policy formation, measurement and prediction of outcomes.

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.

Sociology

SOCI 3343. POVERTY AND HOMELESSNESS IN AMERICA (3-0) 3 hours credit. Major substantive issues related to poverty and homelessness; understanding the structural causes and the stigma of poverty. Problems of the working poor and homeless; community responses to these problems.

SOCI 3353. URBAN SOCIOLOGY (3-0) 3 hours credit. A comparative examination of metropolitan and other urban communities. Origins of urbanization, urbanization in America, urban lifestyles, and the problems of urban areas.

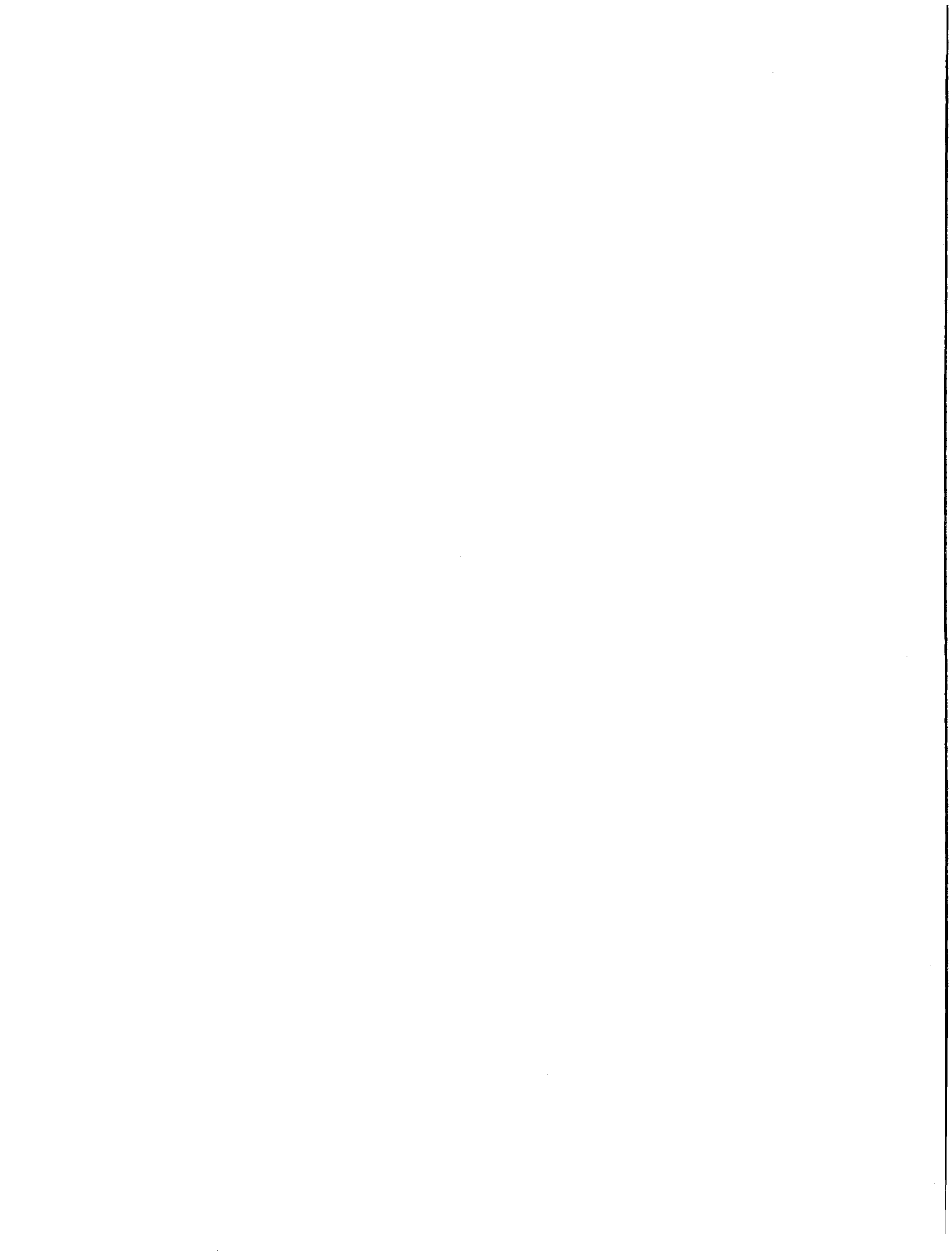
SOCI 3354. POPULATION AND SOCIETY (3-0) 3 hours credit. The factors and processes determining population size, composition, and distribution. The relationship of population to social organizations and human welfare, recent population trends, policies, and programs.

SOCI 4310. MINORITIES (3-0) 3 hours credit. The role of racial and minority categories in the social order. The role, and the associated problems, of groups within the American culture and the impact of these persons on the total cultural milieu. Prerequisite: junior standing or permission of the instructor.

SOCI 4318. SOCIAL CHANGE AND CONFLICT (3-0) 3 hours credit. The sources of conflict and social change as an outgrowth of inequality. Movements arising out of such conflicts which attempt to bring about fundamental social change. Prerequisite: junior standing or permission of the instructor.

Social Work

SOCW 3303. SOCIAL WELFARE POLICIES AND SERVICES (3-0) 3 hours credit. A critical, analytical examination of policy choices in selected social welfare institutions, programs, and proposals with respect to benefits provided, beneficiaries, delivery strategies, and finances. The significance of social welfare policy for social work practitioners. Prerequisite: SOCW 2311.



Faculty

(Year in parentheses indicates year of initial appointment to the faculty of The University of Texas at Arlington.)

- 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**, Assistant Professor of History (2001). M.A., University of Leipzig, 1994; Ph.D., 1998.
- 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**, Specialist in Nursing (1998). B.S.N., University of North Carolina-Greensboro, 1983; M.S., University of North Carolina-Chapel Hill, 1987. Registered Nurse.
- 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 Department (1988). B.S., Massachusetts Institute of Technology, 1972; M.S., 1977; Ph.D., 1981.
- ALCALA, ANGELO L.**, Assistant Professor of Curriculum and Instruction (1999). B.B.A., University of North Texas, 1988; M.Ed., 1992; Ph.D., 1999.
- ALFARO, OVIDIO**, Captain, U.S. Army, Assistant Professor of Military Science (1996). B.S., U.S. Military Academy, 1991.
- ALTHAUS, BECKY**, Specialist in Nursing (1998). B.S.N., Baylor University, 1974; M.S.N., Texas Woman's University, 1977; Ph.D., Texas Woman's University, 2000. Registered Nurse.
- AMACHER, RYAN C.**, Professor of Economics (1992). A.B., Ripon College, 1967; Ph.D., University of Virginia, 1971.
- AMMERMAN, LOREN K.**, Lecturer in Biology (1994). B.S., Texas A&M University, 1987; Ph.D., The University of Texas at Austin, 1993.
- AMSTER, HARRIETT**, Professor of Psychology (1973). A.B., Bryn Mawr College, 1950; M.A., Clark University, 1954; Ph.D., 1957.
- ANDERS, EVAN M.**, Associate Professor of History (1982). B.A., The University of Texas at Austin, 1968; M.A., 1970; Ph.D., 1978.
- ANDERSON, ANDY**, Professor and Chair of the Department of Art and Art History (1991). B.A., Florida State University, 1968; M.A., 1971.
- ANDERSON, CHERYL**, Assistant Professor of Nursing (1991). B.S.N., San Diego State University, 1974; M.S.N., University of California at Los Angeles, 1976; Ph.D., Texas Woman's University, 1985. Registered Nurse.
- ANDERSON, CORRINE**, Specialist in Nursing (2000). B.S.N., The University of Texas at Arlington, 1985; M.S.N., 1999. Registered Nurse.
- ANDERSON, DALE A.**, Professor of Aerospace Engineering and Vice President of the UTA/Fort Worth Riverbend Campus (1984). B.S., Saint Louis University, 1957; M.S., Iowa State University, 1959; Ph.D., 1964. Professional Engineer.
- ANDERSON, MINDI**, Specialist in Nursing (2000). B.S.N., Texas Christian University, 1993; M.S.N., The University of Texas at Arlington, 1997. Registered Nurse.
- ANDRESEN, EARL**, Professor of Communication (1991). A.B., Columbia College, 1969; A.M., University of Illinois, 1972; Ph.D., Texas A&M University, 1988.
- ANJOMANI, ARDESHIR**, Professor of City and Regional Planning (1979). M.Arch., University of Tehran, Iran, 1968; M. Planning, University of Southern California, 1976; Ph.D., 1979.
- APILADO, VINCENT P.**, Professor and Chair of the Department 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.
- ARDAY, DONALD**, Associate Professor of Art (1988). B.F.A., Cleveland Institute of Art, 1978; M.F.A., Syracuse University, 1980.
- ARDEKANI, SIAMAK A.**, Professor and Interim Chair of the Department of Civil and Environmental Engineering (1989). B.S., The University of Texas at Austin, 1980; M.S., 1981; Ph.D., 1984. Professional Engineer.
- ARNOTT, HOWARD J.**, Jenkins Garrett Professor of Biology (1974). A.B., University of Southern California, 1952; M.S., 1953; Ph.D., University of California at Berkeley, 1958.
- ARVIDSON, ENID**, Assistant Professor of City and Regional Planning (1995). B.A., University of California at Santa Barbara, 1979; M.R.P., University of Massachusetts, 1985; Ph.D., 1996.
- ASHWILL, REGINA**, Specialist in Nursing (1996). B.S.N., The University of Texas at Arlington, 1980; M.S.N., 1982. Registered Nurse.
- ASWATH, PRANESH B.**, Professor in Mechanical Engineering Department (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.
- AWASTHI, SANJAY**, Research Professor of Chemistry (1999). B.A., The University of Texas at Austin, 1982; M.D., The University of Texas Southwestern Medical School at Dallas, 1986.
- BACON, JOHN D.**, Professor and Chair of the Department of Biology (1975). B.S., Sul Ross State University, 1966; M.S., Texas A&M University, 1970; Ph.D., The University of Texas at Austin, 1975.
- BAKER, HARVY L., JR.**, Lecturer in Mathematics (1986). B.A., The University of Texas at Austin, 1960; Ph.D., 1965.

FACULTY

BAKER, JOY DON, Specialist in Nursing (2000). B.S., Baptist University, 1974; M.S., University of Oklahoma, 1982; M.B.A., Nova University, 1985; M.A., Fielding Institute, 1996; Ph.D., 2000. Registered Nurse.

BAKER, JULIE, Associate Professor of Marketing (1992). B.A., Iowa State University, 1973; M.A., University of Nebraska, 1984; Ph.D., Texas A&M University, 1990.

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.

BALSAM, WILLIAM L., Professor of Geology (1984). B.S., Saint Lawrence University, 1967; M.S., Brown University, 1969; Ph.D., 1973.

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.

BARKER, CALVIN LR., Professor Emeritus of Mechanical Engineering (1960). B.S. The University of Texas at Austin, 1953; M.S., California Institute of Technology, 1954; Ph.D., 1958, Professional Engineer.

BARR, WENDY J., Specialist in Nursing (1986). B.S., Loyola University, 1969; M.S., University of Massachusetts, 1976; Ph.D., Texas Woman's University, 1985. Registered Nurse.

BARRETT, EDITH J., Associate 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.

BARROS, CAROLYN A., Associate Professor of English and Dean of the Honors College (1977). B.A., The University of Texas at Arlington, 1973; M.A., Texas Christian University, 1978; Ph.D., The University of Texas at Dallas, 1984.

BASSLER, JOHN, Lecturer in Marketing (2000). B.A., Rice University, 1965; M.B.A., Stanford University, 1967; Ph.D., Carnegie-Mellon University, 1972.

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.

BAUM, EDWARD M., Professor of Architecture (1987). A.B., Harvard College, 1960; M.Arch., Harvard University, 1964. Registered Architect.

BECKHAM, SUSAN G., Assistant Professor of Kinesiology (1995). B.S., Southwest Missouri State University, 1980; M.S., Oklahoma State University, 1984; Ph.D., 1991.

BEHBEHANI, KHOSROW, Professor and Interim 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, Assistant 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 (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.

BENNETT, JEFFERSON F., Adjunct Associate Professor of Linguistics (1996). A.B., Duke University, 1986; M.A., University of Illinois, 1988; Ph.D., 1995.

BERNARD, DAVID G., Associate Professor of Biology (1995). B.S., Howard University, 1984; Ph.D., Howard University College of Medicine, 1992.

BERNFELD, STEPHEN R., Professor of Mathematics (1975). B.S., Rensselaer Polytechnic Institute, 1965; Ph.D., University of Maryland, 1969.

BERNSTEIN, IRA H., Professor of Psychology (1964). B.A., University of Michigan, 1959; M.A., Vanderbilt University, 1961; Ph.D., 1963.

BING, ROBERT L., III, Associate Professor and Chair of the Department of Criminology and Criminal Justice (1991). B.A., College of the Holy Cross, 1975; M.S., Florida State University, 1976; Ph.D., 1987.

BLACK, TRUMAN D., Professor of Physics (1965). B.S., University of Houston, 1959; M.A., Rice University, 1962; Ph.D., 1964.

BOARDMAN, BONNIE S., Assistant Professor in Industrial and Manufacturing Systems Engineering Department (1999). B.S., University of Arkansas, 1991; M.S., Texas A&M University, 1992; Ph.D., University of Arkansas, 1997.

BOCHEV, PAVEL, Associate Professor of Mathematics (1994). M.S., University of Sofia, 1987; Ph.D., Virginia Polytechnic Institute and State University, 1994.

BOGARD, RICKEY G., Assistant 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.

BOGLE, JAMES M., Associate Professor of Music (1995). B.M., University of North Texas, 1986; M.M., 1989; D.M.A., 2000.

BOLSTERLI, ERIC J., Senior Lecturer in History (1994). B.A., University of California at Santa Barbara, 1982; M.A., University of Arkansas, 1992; Ph.D., 1998.

BOND, MARY LOU, George W. and Hazel M. Jay Professor of Nursing (1989). B.S.N., Texas Christian University, 1962; M.S.N., University of Pittsburgh, 1973; Ph.D., The University of Texas at Austin, 1984. Registered Nurse.

BOOTHE, KENNETH A., Adjunct Assistant Professor of Linguistics (1995). B.A., University of Akron, 1975; M.A., The University of Texas at Arlington, 1987.

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.

- BOWLING, ANDREW**, Adjunct Assistant Professor of Linguistics (2000). B.A., University of Cincinnati, 1957; M.A., Brandeis University, 1960; Ph.D., 1962.
- BOYKIN, HUBERT**, Lecturer in Finance and Real Estate (1988). B.A., University of Mississippi, 1959; J.D., 1961; LL.M., Southern Methodist University, 1986.
- BRADSHAW, DENNY**, Associate Professor of Philosophy and Chair of the Department of Philosophy and Humanities (1992). B.A., Mankato State University, 1982; Ph.D., University of Iowa, 1988.
- 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 Department (1989). B.S., Kansas State University, 1977; M.S., Iowa State University, 1980; Ph.D., University of Kansas, 1989.
- BRIGHT, ELISE M.**, Associate Professor of Urban Affairs (1988). B.A., University of Arizona, 1972; M.A., Harvard University, 1975; Ph.D., Texas A&M University, 1980.
- BROWN, KEVIN E.**, Major, U.S. Army, Assistant Professor of Military Science (2001). B.S., University of South Alabama, 1986.
- BRUCE, LES P.**, Adjunct Assistant Professor of Linguistics (1994). B.A., John Brown University, 1967; M.A., Columbia International University, 1970; Ph.D., Australian National University, 1980.
- BRUNO, VINCENT J.**, Professor Emeritus of Art (1976). B.A., Kenyon College, 1951; M.A., Columbia University, 1962; Ph.D., 1969.
- BUABBUD, GEORGE H.**, Adjunct Professor in Electrical Engineering Department (1993). B.E., American University of Beirut, 1976; M.S., University of Nebraska, 1981; Ph.D., 1981.
- BUISSERET, DAVID**, Jenkins and Virginia Garrett Endowed Professor in Southwestern Studies and the History of Cartography (1995). B.A., Cambridge University, 1958; Ph.D., 1961.
- 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**, Adjunct Professor of Geology (1970). B.S., The University of Texas at Austin, 1954; M.A., 1960; Ph.D., Rice University, 1965.
- BURKHALTER, SARAH B.**, Assistant Professor of Curriculum and Instruction and Assistant Dean for Teacher Education (2001). B.A., The University of Texas at San Antonio, 1976; M.A., The University of Texas at Austin, 1982; Ph.D., 1997.
- BURLESON, MARK L.**, Assistant Professor of Biology (1997). B.S., The University of Texas at Arlington, 1986; Ph.D., University of British Columbia, 1991.
- BURMAN, HAROLD G.**, Professor Emeritus of Chemistry (1944). B.S., Dakota Wesleyan University, 1931; Ph.D., Johns Hopkins University, 1935.
- BURQUEST, DONALD A.**, Associate Professor of Linguistics (1975). B.A., Wheaton College, 1961; M.A., University of California at Los Angeles, 1965; Ph.D., 1973.
- BUTTIMER, RICHARD J., JR.**, Associate Professor of Finance and Real Estate (1993). B.B.A., University of Georgia, 1987; Ph.D., 1993.
- CAHILL, MICHAEL C.**, Adjunct Assistant Professor of Linguistics (2000). B.S., Iowa State University, 1977; M.A., The University of Texas at Arlington, 1985; Ph.D., Ohio State University, 1999.
- CALLICUTT, JAMES W.**, Professor of Social Work (1968). B.S., Memphis State College, 1951; M.S.S.W., University of Tennessee, 1958; Ph.D., Brandeis University, 1969.
- 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 of Biology (1983). B.A., University of Mississippi, 1969; M.A., The University of Texas at Arlington, 1977; Ph.D., University of Kansas, 1982.
- CANADAY, KATHLYN Y.**, Assistant Professor of Curriculum and Instruction (1998). B.S., East Texas State University, 1975; M.S., 1980; Ph.D., University of North Texas, 1991.
- CANTWELL, DONALD W.**, Associate Professor of Finance and Real Estate (1959). B.B.A., Southern Methodist University, 1953; M.B.A., 1959; J.D., 1962. State Bar, 1962.
- CARMAN, M. HELOISA**, Clinical Instructor of Curriculum and Instruction (1992). B.A., Indiana University, 1988; M.Ed., The University of Texas at Arlington, 1992.
- CARNEY, KIM**, Professor Emeritus of Economics (1967). B.S., Northwestern University, 1947; M.A., Southern Methodist University, 1965; Ph.D., 1968.
- CARPENTER, GALEN**, Lecturer in Accounting (1982). B.B.A., The University of Texas at Arlington, 1971; M.P.A., 1975. CPA.
- CARROLL, BILL D.**, Professor of Computer Science and Engineering and Dean of the College of Engineering (1981). B.S., The University of Texas at Austin, 1964; M.S., 1966; Ph.D., 1969. Professional Engineer.
- CARTER, RONALD L.**, Professor in Electrical Engineering Department (1979). B.S., Iowa State University, 1962; M.S., 1964; Ph.D., Michigan State University, 1971.
- CASH, FLOYD L.**, Professor Emeritus of Electrical Engineering (1959). B.S., University of Oklahoma, 1946; M.S., The University of Texas at Austin, 1951; Ph.D., 1955. Professional Engineer.
- CASON, CAROLYN**, Professor and Associate Dean of the School of Nursing (1997). B.S.N., University of Texas Medical Branch, 1967; M.S.N., The University of Texas System School of Nursing, 1972; Ph.D., The University of Texas at Austin, 1972. Registered Nurse.
- CAWTHON, ELISABETH A.**, Associate Professor of History (1988). B.A., Louisiana Tech University, 1978; M.A., University of Virginia, 1981; Ph.D., 1985.

- CHAKRAVARTHY, SHARMA**, Professor in Computer Science and Engineering Department (2000). B.S., Bangalore University, 1970; M.S., University of Maryland, 1981; Ph.D., 1985.
- CHAN, WEN S.**, Professor in Mechanical Engineering (1988). B.S., National Cheng Kung University, 1969; M.S., Tennessee Technological University, 1972; Ph.D., Purdue University, 1979.
- CHAPA, JOE, JR.**, Associate Professor of Theatre Arts (1993). B.A., The University of Texas at Arlington, 1985; M.F.A., University of Mississippi, 1991.
- CHAPPELL, SUSAN**, Specialist in Nursing (1991). B.S.N., Stephen F. Austin State University, 1986; M.S.N., The University of Texas at Arlington, 1991; Ph.D., Texas Woman's University, 1999. Registered Nurse.
- CHAVE, GEORGE B.**, Associate Professor of Music (1992). B.M., Syracuse University, 1981; M.M., State University of New York at Binghamton, 1983; Ph.D., Washington University (St. Louis), 1988.
- CHEAVENS, FRANK**, Professor Emeritus of Psychology (1957). B.A., Baylor University, 1927; M.A., The University of Texas at Austin, 1946; Ph.D., 1957.
- CHEN, MO-SHING**, Professor of Electrical Engineering (1962). B.S., National Taiwan University, 1954; M.S., The University of Texas at Austin, 1958; Ph.D., 1962. Professional Engineer.
- CHIASSON, CHARLES C.**, Associate Professor of Classical Studies (1983). B.A., Yale University, 1974; Ph.D., 1979.
- CHIPPINDALE, PAULT.**, Assistant Professor of Biology (1996). B.S., University of Guelph, 1986; M.S., University of Toronto, 1990; Ph.D., The University of Texas at Austin, 1995.
- CHOI, JINNY K.**, Assistant Professor of Spanish (1998). B.A., The University of Texas at Arlington, 1989; M.A., University of California at Irvine, 1992; Ph.D., Georgetown University, 1998.
- CHRZANOWSKI, THOMAS H.**, Professor of Biology (1981). B.A., Bloomfield College, 1974; M.S., University of South Carolina, 1976; Ph.D., 1981.
- CHUONG, CHARLES**, Professor in Biomedical Engineering (1985). B.S., Cheng-Kung University, 1972; M.S., University of California at San Diego, 1977; Ph.D., 1981.
- CHWIALKOWSKI, MICHAEL P.**, Associate Professor in Electrical Engineering Department (1986). M.S., Warsaw Technical University, 1978; Ph.D., 1982.
- CICHOCK, MARK A.**, Associate Professor of Political Science (1985). B.S., University of Wisconsin-Stevens Point, 1976; M.A., University of South Carolina, 1979; Ph.D., 1983.
- CLARK, JILL**, Associate Professor of Political Science (1978). B.S., Iowa State University, 1965; M.S., University of Wisconsin in Milwaukee, 1971; Ph.D., 1974.
- CLARKE, JAMES G.**, Lecturer in Information Systems and Operations Management (1981). B.A., Southern Methodist University, 1972; M.A., 1974; M.A.S., 1978.
- CLAYTOR, R. N.**, Adjunct Professor of Physics (1990). B.A., Rice Institute, 1957; M.A., 1959; Ph.D., 1961.
- CLEMENTS, PHILLIP L.**, Associate Professor of Music (1994). B.M.E., University of North Texas, 1990; M.M.E., 1993.
- CLINE, JEANNEANE**, Specialist in Nursing (1994). B.S.N., Texas Christian University, 1972; M.S., Texas Woman's University, 1974; M.S., Trinity University, 1987. Registered Nurse.
- COARI, WILLIAM A.**, Specialist in Kinesiology (1999). B.S., Texas A&I University, 1986; M.S., 1988.
- COBB, NORMAN H.**, Associate Professor and Associate Dean of the School of Social Work (1989). B.A., Texas Tech University, 1967; M.Div., St. Paul School of Theology, 1970; M.S.S.W., The University of Texas at Arlington, 1979; Ph.D., University of California at Berkeley, 1986.
- COCHRAN, PAT**, Specialist in Nursing (1991). B.S.N., State University of New York at Albany, 1978; M.S.N., University of Texas Medical Branch at Galveston, 1984. Registered Nurse.
- COHEN, PHILIP G.**, Associate Professor of English and Dean of the Graduate School (1986). B.S., American University, 1976; M.A., University of Southern California, 1978; Ph.D., University of Delaware, 1984.
- COLE, RICHARD L.**, Professor of Urban Affairs, Dean of the School of Urban and Public Affairs, and Interim Dean of the College of Liberal Arts (1980). B.A., University of North Texas, 1967; M.A., 1968; Ph.D., Purdue University, 1973.
- COLE, STEPHANIE**, Assistant Professor of History (1996). B.A., The University of the South, 1984; M.A., University of Florida, 1988; Ph.D. 1994.
- COLEMAN, ALISA**, Assistant Professor of Communication (1988). B.A., Lee College, 1980; M.S.L.S., University of Tennessee, 1984; Ph.D., 1990.
- COLLINS, JIM**, Specialist in Communication (1998). B.A., Texas Tech University, 1969.
- COLLINS, STEVE**, Assistant Professor of Communication (1999). B.A., University of Iowa, 1990; M.A., 1992; Ph.D., Syracuse University, 1999.
- COOK, DIANE J.**, Professor in Computer Science and Engineering Department (1992). B.S., Wheaton College, 1985; M.S., University of Illinois at Urbana, 1987; Ph.D., 1990.
- CORDUNEANU, CONSTANTIN C.**, Professor Emeritus of Mathematics (1979). Ph.D., University of Iasi, Romania, 1956.
- CORLEY, H.W.**, Professor of Industrial Engineering (1971). B.S., Georgia Institute of Technology, 1966; M.S., 1968; Ph.D., University of Florida, 1971; Ph.D., The University of Texas at Arlington, 1997. Professional Engineer.
- CORNEHLS, JAMES V.**, Professor of Urban Affairs (1970). B.A., University of the Americas, 1961; Ph.D., The University of Texas at Austin, 1965; J.D., Southern Methodist University, 1982.
- COURTNEY, HARLEY M.**, Professor of Accounting (1970). B.B.A., Lamar University, 1955; M.B.A., Texas A&M University, 1961; Ph.D., University of Illinois, 1966. CPA.

- COX, NITA F.**, Professor Emeritus of Communication (1947). B.F.A., The University of Texas at Austin, 1946; M.F.A., Texas Christian University, 1961.
- COX, VERNE**, Professor Emeritus of Psychology (1970). B.A., The University of Texas at Austin, 1960; Ph.D., University of Houston, 1964.
- CRAVENER, PATRICIA**, Specialist in Nursing (1999). B.A., University of California at Santa Barbara, 1972; A.S., North Idaho College, 1985; M.S., University of Hawaii at Manoa, 1993; Ed.D., University of Southern California, 1997. Registered Nurse.
- CRICK, REX E.**, Professor of Geology (1979). B.A., University of Kansas, 1973; M.S., 1976; Ph.D., University of Rochester, 1978.
- CROSBY, ERNEST C.**, Associate Professor of Civil and Environmental Engineering (1979). B.E., Memphis State University, 1969; M.S., 1974; Ph.D., University of Tennessee, 1979. Professional Engineer.
- CROW, MARY LYNN**, Professor of Curriculum and Instruction (1970). B.A., Texas Christian University, 1956; M.Ed., 1967; Ph.D., University of North Texas, 1970.
- CROWDER, WILLIAM J.**, Associate Professor of Economics (1992). B.S., Arizona State University, 1987; Ph.D., 1992.
- CULBERT, STEVENT.**, Lecturer in Marketing (1997). B.S., Ball State University, 1973; M.A., University of Dallas, 1974; Ph.D., Texas Christian University, 1981.
- DAILEY, RICHARD M.**, Senior Lecturer of Marketing (1997). B.S., Louisiana Tech University, 1970; M.B.A., 1971; D.B.A., 1978.
- DALLEY, JOSEPH W.**, Professor Emeritus of Aerospace Engineering and Engineering Mechanics (1960). B.S., The University of Texas at Austin, 1947; M.S., 1951; Ph.D., 1959. Professional Engineer. FSESA.
- DAMRAU, KENNETH**, Lecturer in Computer Science and Engineering (2000). B.S., University of New Mexico, 1988; M.S., The University of Texas at Arlington, 1999.
- DAMUTH, JOHN E.**, Adjunct Professor of Geology (1996). B.S., Ohio State University, 1965; M.A., Columbia University, 1968; Ph.D., 1973.
- DANAHAY, MARTIN A.**, Professor of English (1994). B.A., Cambridge University, 1981; M.A., Brandeis University, 1983; M.A., Cambridge University, 1985; Ph.D., Brandeis University, 1987.
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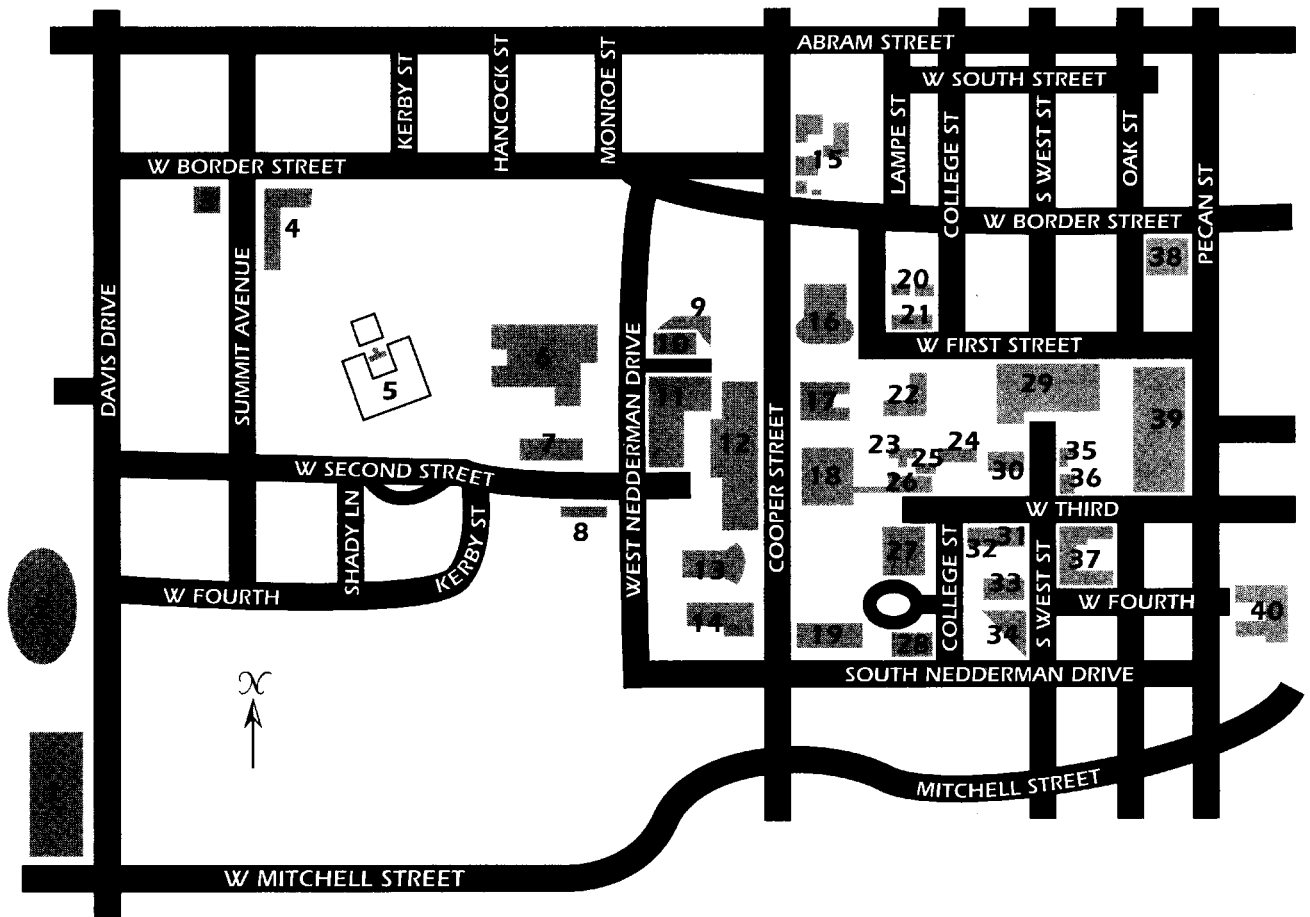
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The University of Texas at Arlington Campus Map



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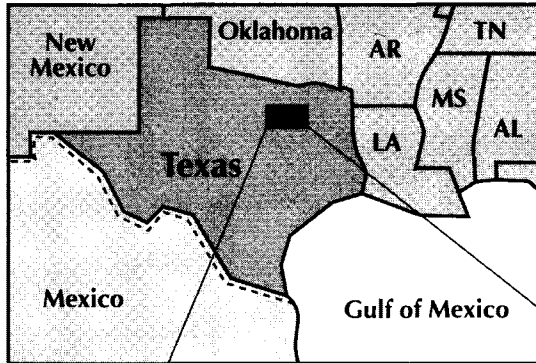
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Texas and Surrounding States



Dallas/Fort Worth Metroplex Area

