

2008-2010 Undergraduate Catalog

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Correspondence Directory

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This Undergraduate Catalog is published by The University of Texas at Dallas.

Address all correspondence to:
The University of Texas at Dallas
P.O. Box 830688
Richardson, TX 75083-0688

The physical address of the university is:
800 West Campbell Road
Richardson, TX 75080

The main entrance to U.T. Dallas is located on University Parkway, which runs north from Campbell Road between Floyd Road and Waterview Parkway in Richardson.

Additional programs are located at the U.T. Dallas Callier Center for Communication Disorders, 1966 Inwood Drive, Dallas, TX 75235.

Telephone: (972) 883-2111

Fax: (972) 883-6803

Admissions Information: (972) 883-2270 or 1-800-889-2443

World Wide Web: <http://www.utdallas.edu/>.

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Undergraduate Programs Available

School of Arts and Humanities

Art and Performance (B.A.)*
 Arts and Humanities (B.A.)*
 Arts and Technology (B.A.)
 Historical Studies (B.A.)*
 Literary Studies (B.A.)*

School of Behavioral and Brain Sciences

Child Learning and Development (B.S.)
 Cognitive Science (B.S.)*
 Neuroscience (B.S.)*
 Psychology (B.A.)*
 Speech-Language Pathology and Audiology (B.S.)*

School of Economic, Political and Policy Sciences

Criminology (B.A.)
 Economics (B.A., B.S.)*
 Economics and Finance (B.S.)
 Geography (B.A.)*
 International Political Economy (B.A., B.S.)
 Political Science (B.A.)*
 Public Affairs (B.S.)*
 Sociology (B.A.)*

Erik Jonsson School of Engineering and Computer Science

Computer Engineering (B.S.C.E.)
 Computer Science (B.S.)*
 Electrical Engineering (B.S.E.E.)*
 Software Engineering (B.S.)*
 Telecommunications Engineering (B.S.T.E.)*

School of General Studies

American Studies (B.A.)
 Gender Studies (B.A.)
 Interdisciplinary Studies (B.A., B.S.)
 Teacher Certification

School of Management

Accounting and Information Management (B.S.)*
 Business Administration (B.S.)*
 Business Administration and Biology (B.S.)
 Finance (B.S.)*
 Finance and Economics (B.S.)

School of Natural Sciences and Mathematics

Biochemistry (B.S.)
 Biology (B.A., B.S.)*
 Biology and Business Administration (B.A., B.S.)
 Biology and Criminology (B.A., B.S.)
 Chemistry (B.A., B.S.)*
 Geosciences (B.A., B.S.)
 Mathematical Sciences (B.S.)* with majors in:
 Applied Mathematics
 Statistics
 Mathematical Sciences
 Molecular Biology (B.S.)
 Molecular Biology and Business Administration (B.S.)
 Molecular Biology and Criminology (B.S.)
 Physics (B.A., B.S.)*

Accreditation

The University of Texas at Dallas is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097; Telephone (404) 679-4500) to award baccalaureate, master's, and doctoral degrees.

*A degree program followed by an asterisk can be used in an accelerated baccalaureate/master's degree. Please see page 74 of the catalog for graduate programs offering Fast Track degrees.

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Francie A. Frederick, General Counsel

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H. Scott Caven, Jr.Houston
James Richard Huffines.....Austin

*Terms Scheduled to Expire February 1, 2011**

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Colleen McHugh.Corpus Christi
Robert B. Rowling.....Dallas

*Terms Scheduled to Expire February 1, 2013**

James D. Dannenbaum.....Houston
Paul Foster.El Paso
Printice L. Gary.....Dallas

**The actual expiration date of the term depends on the date the successor is appointed, qualified, and takes the oath of office.*

Campus Map



UTD Campus Map

BUILDING ABBREVIATIONS AND NAMES	
AB	Activities Center
AD	Administration
AS	Visual Arts Studio
ATEC	Arts and Technology Building
BE	Lloyd V. Berkner Hall
BK	Bookstore
CB	Classroom Building
CBW	Classroom Building West
CM	Construction Management
CN	Conference Center
CR	Callier Center Richardson
ECSN	Engineering/Computer Science North
ECSS	Engineering/Computer Science South
EP	Energy Plant
FA	Founders West Annex
FN	Founders North
FO	Founders Building
GC	Cecil and Ida Green Center
GR	Cecil H. Green Hall
HH	Karl Hoblitzelle Hall *
JO	Enik-Jonsson Academic Center
MC	Eugene McDermott Library *
MP	Multipurpose Building
NB	North Office Building
OSB	Old Service Building
NL	North Lab
PG	Police/Garage/Grounds Building
PP	Facilities Management
RL	Natural Science & Engineering Research Lab
SB	Service Building
SOM	School of Management
SU	Student Union
TH	Theatre
VC	Visitor/Parking Information
WSTC	Waterview Science and Technology Center
<p>* STUDENT SERVICE AREAS</p> <p>Karl Hoblitzelle Hall (HH) Enrollment Services Admissions to UT Dallas</p> <p>Eugene McDermott Library (MC) Bursar Financial Aid International Student Services Registrar</p>	
UNIVERSITY HOUSING	
<p>Waterview Park Apartments 2800 Waterview Parkway, Suite 100 Richardson, TX 75080 (866) 454-5000 (866) 276-9282 Toll Free (972) 238-3672 Fax</p>	<p>University Village 2800 Waterview Parkway, Suite 200 Richardson, TX 75080 (972) 792-9100 (972) 792-9101 Fax</p>
<p>1 Buildings 2-12</p> <p>2 Buildings 14-23</p> <p>3 Buildings 24-31</p> <p>4 Buildings 33-36</p>	<p>5 Buildings 38-41</p> <p>6 Buildings 43-46</p> <p>7 Buildings 48-51</p> <p>8 Buildings 53-59</p> <p>8b Buildings 61-63</p> <p>9 Buildings 65-67</p>

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For more information call the main switchboard at 972.883-2111.

www.utdallas.edu

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Vice Provost

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Dean, Eugene McDermott Library

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The online version of The University of Texas at Dallas Undergraduate Catalog is the official version and takes precedence over the printed version. The online catalog will be updated periodically and will contain all major policy changes that occur during the 2008-2010 catalog cycle.

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

The catalog is arranged into sections. The sections are titled:

- Admission
- Academic Policies and Procedures
- Resources for Study and Campus Life
- Tuition and Financial Aid
- Degree Programs
- Course Descriptions
- Faculty Roster
- Appendix (Regent's Rules of Conduct and Procedure)
- Index

Within each section the topics are arranged alphabetically.

The University of Texas at Dallas

Historical Sketch

Prior to World War II, Eugene McDermott, Cecil Green and J. Erik Jonsson, the founders of Geophysical Services, Inc., were in the business of searching for natural resources. The war changed the focus of the company from searching for natural resources to creating instruments that aided in finding enemy planes and submarines. GSI spawned Texas Instruments and in 1958, TI employee Jack Kilby invented the integrated circuit that launched a new era for the company, for North Texas and for the world.

During the expansion of Texas Instruments, the Founders were forced to import engineering talent from outside the state, while the region's bright young adults pursued education elsewhere. McDermott, Green and Jonsson saw that Texas needed highly educated minds if the state were to remain competitive in the decades to come. They noted that in 1959 alone, Columbia University conferred 560 doctoral degrees - more than the entire Southwest region. They wrote at the time, "To grow industrially, the region must grow academically; it must provide the intellectual atmosphere, which will allow it to compete in the new industries dependent on highly trained and creative minds."

Therefore, they established the Graduate Research Center of the Southwest (later renamed the Southwest Center for Advanced Studies) in 1961. The center recruited some of the best scientific talent in the nation. The Texas Legislature concurred with the vision of the Founders and mandated in 1967 that science and technology educational opportunities needed to exist in North Texas. McDermott, Green and Jonsson decided to donate SCAS and its lands to The University of Texas System, and on June 13, 1969, Governor Preston Smith signed the bill creating The University of Texas at Dallas. The SCAS scientists formed the core of UT Dallas' educational infrastructure.

By terms of its enabling legislation, UT Dallas offered only graduate degrees until 1975 when the addition of juniors and seniors increased enrollment from 408 in 1974 to more than 3,300 students. By the fall of 1977, the enrollment reached over 5,300. In 1986, UT Dallas established the Erik Jonsson School of Engineering and Computer Science. Today the Jonsson School plays a critical role in providing a highly educated work force for the advanced technology industry.

The Rise to National Prominence

In 1990, the Texas Legislature authorized UT Dallas to admit lower division students. UT Dallas' first freshman class consisted of only 100 students. Despite its small size, this cohort's achievements set the standard for future classes. Since then, freshman classes have grown in size while the University has maintained high enrollment standards. Nationally published data indicate that UT Dallas' freshman class compares extremely well with those from many prominent national universities. UT Dallas consistently has three-fourths of its entering freshmen in the top twenty-five percent of their graduating class with many coming from the state's most competitive high schools.

The University's ability to attract and retain these students has propelled The University of Texas at Dallas into national prominence within a few short years. US News and World Report ranks UT Dallas as one of the three best public universities in the state along with UT Austin and Texas A&M. Kiplinger's Personal Finance Magazine, in its October 2006 article "100 Best Values in Public Colleges", ranked UT Dallas 66th among all public universities nationally. The quality of the students who attend UT Dallas has remained consistently high. Over forty percent of the incoming freshmen are in the top 10% of their high school graduating class and their average SAT scores place them in the top twenty percent of all college-bound students.

The addition of freshmen has accelerated the rise in the percentage of full-time undergraduates from 31% in 1986 to 73% in 2007. Masters, doctoral and post-baccalaureate students currently comprise 36% of the student body. Given its location and mission, UT Dallas will continue to have significant numbers of professionals attending undergraduate or master's courses part time.

The transition of the University from a part-time upper division school to a four-year university with an emphasis on engineering, mathematics, the sciences and the management of new technologies has been greatly facilitated by the University's faculty. By retaining key faculty members and attracting more nationally and internationally prominent researchers and instructors, UT Dallas has enabled its faculty to provide quality instruction to an increasingly diverse student population while sustaining the University's longstanding research tradition. In the past decade, the faculty has increased the level of external

research funds substantially. During this same period, the University expanded its teaching mission, enhanced its areas of focused excellence and became independently recognized as one of the top public universities in the nation.

Mission

UT Dallas serves the Metroplex and the State of Texas as a global leader in innovative, high quality science, engineering, and business education and research. The University is committed to

- Producing engaged graduates, prepared for life, work, and leadership in a constantly changing world
- Advancing excellent educational and research programs in the natural and social sciences, in engineering and technology, in management, and in the liberal, creative, and practical arts
- Transforming ideas into actions that directly benefit the personal, economic, social, and cultural lives of the citizens of Texas.

Organization

The University of Texas at Dallas is one of nine universities and six health institutions governed by The University of Texas System's nine regents, who are nominated by the governor, selected from different areas of the state, and appointed with the advice and consent of the Texas senate. UT Dallas consists of seven Schools, each headed by a dean: Arts and Humanities, Behavioral and Brain Sciences, Engineering and Computer Science, Economics, Political and Policy Sciences, General Studies, Management, and Natural Sciences and Mathematics. The schools, in turn, consist of teaching and research programs that provide the disciplinary foundations of the University. In addition to the usual disciplinary approaches, the University has a strong commitment to interdisciplinary study at both the graduate and undergraduate levels. Most faculty members teach in both graduate and undergraduate areas so that the character of their instruction is informed by critical examination of the most recent developments in their fields.

Each of the University's schools contains an undergraduate college, headed by an Associate Dean of Undergraduate Education (ADU) who coordinates the undergraduate programs and academic advising within the college. These colleges of The University of Texas at Dallas provide undergraduate students with a personalized setting in which they may pursue their academic careers. Each college offers an intellectual and social home for undergraduates within the larger university.

The Office of Undergraduate Education coordinates undergraduate education across the seven schools. The Council for Undergraduate Education (CUE), chaired by the Dean of Undergraduate Education, oversees lower-division admissions, academic advising and degree requirements, and develops and implements educational policy. The staff of the Office of Undergraduate Education manages the freshman admission review process and Academic Excellence Scholarship programs. They coordinate academic advising, operate the Learning Resource Center, administer the teaching evaluation system, monitor academic compliance for NCAA athletes, manage pre-professional training programs, and supervise the Collegium V honors program, as well as all Intellectual Competition teams. In addition, all freshman and sophomore students without declared majors are advised in the Office of Undergraduate Education.

Admission

The University of Texas at Dallas is a comprehensive, state-supported institution of higher learning, offering a variety of programs at the undergraduate, master's, and doctoral levels. UT Dallas is committed to providing quality education to a diverse student body and offers high-quality programs designed for both full-time and part-time students. The University of Texas at Dallas accepts applications for admission from freshmen and transfer students at all levels for the fall, spring and summer semesters.

The Office of Enrollment Services, located in Hoblitzelle Hall, is the gateway to the University for prospective undergraduate students. Professional admissions counselors/advisors provide information regarding the college selection process through mailings, school visits, participation in college fairs, campus tours, the internet (<http://www.utdallas.edu/enroll/>) and a variety of other special events. Campus tours are provided weekdays at 10:00 a.m. and 2:00 p.m. In addition, The Office of Enrollment Services provides pre-admission counseling sessions for transfer students regarding eligibility for admission and transferability of coursework.

Admission to UT Dallas is open to all candidates on the basis of academic preparation, ability, and availability of space without regard to race, color, religion, national origin, gender, age, disability, citizenship, veteran status, or sexual orientation.

Questions related to undergraduate admissions should be addressed to: Office of Enrollment Services – HH 10; The University of Texas at Dallas; 800 W. Campbell Road; Richardson, Texas 75080-3021. Telephone (972) 883-2270. Fax (972) 883-2599. The Office of Enrollment Services is located in Hoblitzelle Hall.

As with all state institutions of higher education, the procedures and criteria for admission used by UT Dallas are effective as of the publication date of this catalog but are subject to change by actions of the Texas Legislature or the Board of Regents.

Applying for Admission

To apply to UT Dallas, all students should submit an application for admission, which is available at <http://www.applytexas.org/>. Applicants are required to submit copies of all past academic transcripts, test scores and other degree specific documentation by the appropriate application deadlines to be considered for admission to The University of Texas at Dallas.

Official transcripts in sealed envelopes may be delivered to the Office of Enrollment Services, or may be mailed directly from the educational institution. All materials submitted in the process of making application become the property of the University and will not be returned to the applicant.

Application Fees and Deadlines

All fees are non-refundable.

- The application fee is \$50 if your application is submitted prior to the regular application deadline.
 - If you submit your application **after the application deadline but prior to the documentation deadline**, the application fee is \$125 in order to process your application for decision in time to register for classes.
 - Applicants with international academic documents will be assessed an additional foreign credential evaluation fee of \$50.
 - All international visa holders, regardless of visa type, must adhere to the **international application deadlines** (see Deadlines for U.S. Citizens and Residents chart below).
 - All supporting documents and transcripts, with the exception of courses in progress, must be postmarked by the **documentation deadline** (see Deadlines for U.S. Citizens and Residents chart below).
 - A new application must be completed and submitted for consideration for any subsequent semester for all incomplete applications after the Documentation Deadline.
-

Deadlines for U.S. Citizens and Residents		
Term	Application Deadline	Documentation Deadline
Fall Full-Term and First 8-week Session	July 1	August 1
Fall Second 8-week Session	September 15	October 15
Spring Full-Term and First 8-week Session	November 1	December 1
Spring Second 8-week Session	January 15	February 15
Summer I (12-week Session)	April 1	May 1
Summer II (8-week Session)	April 15	May 15
Summer III (First 6-week Session)	April 1	May 1
Summer IV (Second 6-week Session)	April 15	May 15

International Student Application Fees and Deadlines

All fees are non-refundable.

- The application fee is \$50 if your application is submitted prior to the regular application deadline.
- If you submit your application **after the application deadline but prior to the documentation deadline**, the application fee is \$125 in order to process your application in time to register for classes.
- Applicants with international academic documents will be assessed an additional foreign credential evaluation fee of \$50.
- All international visa holders, regardless of visa type, must adhere to the **international application deadlines** (see chart below).
- All supporting documents and transcripts, with the exception of courses in progress, must be postmarked by the **documentation deadline** (see chart below).
- A new application must be completed and submitted for consideration for any subsequent semester for all incomplete applications after the documentation deadline.

Deadlines for International Applicants (All Visa Types)		
Term	Application Deadline	Documentation Deadline
Fall Full-Term and First 8-week Session	May 1	June 1
Spring Full-Term and First 8-week Session	September 1	October 1
Summer	March 1	April 1
<p>Note: International Students requesting an I-20 (F1) or a DS-2019 (J1) are not eligible to begin their study at UT Dallas during a 2nd 8-week session.</p> <p>Contact the International Student Services Office at (972)883-4189 for more information.</p>		

UT Dallas encourages all students to submit their application as early as possible, as it can take from 4 to 6 weeks to process. Applications submitted after the application deadline and before the documentation deadline will still be processed; however, a decision may not be reached in time for students to avoid late registration.

The last day to register for classes coincides with the last day to add class (See the Academic Calendar at <http://www.utdallas.edu/>).

After receiving an admissions acknowledgement letter which includes a student ID number, students may check <http://www.utdallas.edu/enroll/> to determine the status of their application and whether all required documents have been received. Undergraduate students can also call the Office of Enrollment Services at (972)883-2270 to check the status of their application. Graduate students should contact the program to which they applied for more information.

First-Time Freshman Admissions

A “first-time freshman” is an applicant to UT Dallas directly following high school graduation. Applicants are still considered “first-time freshmen” if they earn college credit before high school graduation. If an applicant has earned college credit after high school graduation, he or she is not considered a “first-time freshman” and should consult admission requirements for a transfer student (see “Admission – Transfer Student Admissions – Freshman and Sophomore Transfer Students”, page 23 below).

The University’s policy is to admit applicants who are most able to benefit from and contribute to the University’s academic and research mission. The high academic expectations and complex educational curricula at UT Dallas require that entering freshman students have successfully completed a full college-track high-school curriculum and have demonstrated strong general verbal/quantitative aptitudes as measured on national standardized tests.

Automatic Admission

In accord with Chapter 51 of the *Texas Education Code*, students are automatically admitted to the University as first-time freshmen if they graduate in the top 10% of their class from an accredited Texas high school. Applicants must have graduated from high school during one of the two school years preceding the academic year for which they seek admission as first-time freshmen and have not attempted any higher education credits since graduation from high school. Applicants admitted because they are in the top 10% of their high school class may be required to complete additional preparatory work before enrolling in the University. They may also be required to remove any deficiencies in their high school coursework before graduating from the University.

Assured Admission Criteria

Students who take the Texas recommended high school curriculum and graduate in good standing and who possess any of the following scores and rankings are assured admission:

- an SAT score of 1200 (combined math and critical reading) and a class rank within the top 25 percent of his or her high school graduating class in an accredited high school.

Or

- an ACT score of 26 or greater and a class rank within the top 25 percent of his or her high school graduating class in an accredited high school.

They may be required to complete additional preparatory work before enrolling in the University and to remove any deficiencies in their high school coursework before graduating from the University.

Entering freshmen should have successfully completed a full, college-track high school curriculum, including language arts (4 units), mathematics (3.5 units), science (3 units of laboratory science, excluding physical science), social sciences (3 units), foreign language (2 units in a single foreign language), and fine arts (0.5 unit in music, art, or drama). In addition, students must demonstrate strong general verbal/quantitative aptitudes as measured on national standardized tests (ACT or SAT).

Children of Public Servants Killed or Fatally Injured in the Line of Duty

Children of public servants designated by statute are assured freshman admission if they meet University requirements for high school or prior college-level grade point average and standardized test scores. This policy is in accordance with Section 51.803 of the *Texas Education Code*.

Reviewed Admission

All applications that do not qualify for either automatic or assured admissions will be reviewed. Applicants must have graduated from an accredited high school or satisfied equal requirements, and should have completed the high school unit requirements listed below (see item 9). Admission decisions are based on the applicant's composite achievement profile, including:

1. high school class rank;
2. strength of academic preparation including the number and complexity of courses taken (Honors, AP, IB, etc.);
3. SAT-I or ACT scores;
4. record of achievements/honors/awards;
5. special accomplishments/work/service both in and out of school;
6. essays;
7. special circumstances that put academic achievements in context;
8. recommendations (suggested but not required);
9. successful completion of a high school curriculum that includes:
 - a. four units of Language Arts, including at least one unit of writing skills;
 - b. two units of a single foreign language (three units recommended);
 - c. three and one-half units of Mathematics beginning with Algebra I or higher and including a course dealing with trigonometry, such as pre-calculus (four units recommended);
 - d. three units of laboratory science, not including Physical Science;
 - e. three units of Social Sciences, not including work•study (four units recommended);
 - f. one-half unit of Fine Arts (one unit recommended);
 - g. one and one-half units of General Education Electives (two and one-half units recommended);
 - h. the University also recommends one unit of Computer Science, one-half unit of Health, and one and one-half units of Physical Education;
10. for Texas residents, consideration may be given to socioeconomic and geographic information.

The review process gives primary consideration to the applicant's scores on standardized tests and high school record although no specific class rank, test score, or other qualification by itself assures admission. The decision for each applicant will be to approve admission or to deny admission.

The achievement levels of students admitted to UT Dallas are illustrated by the following statistical profile of the entering freshman class of fall 2007.

- 75% of students were in the top 25% of their high school graduating class;
- 42% were in the top 10% of their class;
- 50% of students scored between 1130 and 1340 on the SAT-I ;
- The average SAT-I score was 1238 (the 2007 national average SAT-I was 1017).

In addition to current university requirements for admission, applicants must also have either:

1. successfully completed the curriculum requirements for the recommended or advanced high school program or its equivalent; or
2. satisfied ACT's College Readiness Benchmarks on the ACT assessment applicable to the applicant or earned on the SAT assessment a score of at least 1,500 out of 2,400 or the equivalent.

The above requirement may be satisfied if the applicant's official high school transcript or diploma states that the applicant completed the portion of the recommended or advanced curriculum or its equivalent that was available to the applicant, but was unable to complete the remainder of the curriculum solely because courses necessary to complete the remainder were unavailable to the applicant at the appropriate times in the applicant's high school career as a result of course scheduling, lack of enrollment capacity, or another cause not within the applicant's control.

Freshman Honors Program

See "Honors Program" in Degree Programs section.

International Student Admissions (Students on Non-Immigrant Visas)

In addition to satisfying admissions criteria outlined in the catalog, international applicants from non-English-speaking countries must achieve a minimum score of 550 on the paper Test of English as a Foreign Language (TOEFL) or 213 on the computerized TOEFL, or 80 on the internet-based TOEFL. Students must have taken the test within two years of the date of admission. Admitted international students must meet the requirements of the Texas Higher Education Assessment prior to enrolling in classes (see page 42).

Deadlines

International applicants are strongly urged to meet all published deadlines and submit the application and supporting materials at least six months ahead of the intended date of enrollment. Applicants providing foreign credentials/documents should send all materials to the following address:

Office of Enrollment Services – Foreign Credentials
The University of Texas at Dallas, Mail Station HH 10
800 W. Campbell Road
Richardson, TX 75080-3021
FAX: (972)883-6803 VOICE: (972)883-2270

Fees

Certified English translations are required for documents prepared in a language other than English. There is an additional foreign credential evaluation fee for any student who has been educated outside the United States. These processing fees are required of all international students applying for admission to The University of Texas at Dallas.

Financial Responsibility

International students who plan to study with an F or J visa status must also provide evidence of financial support in order to obtain an I-20 or IAP-66 document.

Health Insurance and Documentation

International students are required to maintain approved comprehensive health insurance while enrolled at The University of Texas at Dallas. At registration, international students will be assessed a health insurance fee for the purchase of the UT System Student Health Insurance Plan. If there is evidence of continuing coverage under the UT System Employee Health Plan, a comparable mandatory employee plan, continuing mandatory coverage through a government-sponsored health plan, or continuing coverage that satisfies the requirements of USIA regulations with regard to J1 and J2 visa holders, the student can request that the health insurance charge be waived.

International students are required to have a mantoux tuberculin skin test prior to registration and must mail the completed documentation form to the UT Dallas Student Health Center – SU25, PO Box 830688, SU 1.606, Richardson, TX 75083-0688.

See the Health Center web site (<http://www.utdallas.edu/healthcenter/>) for the documentation form and more information. International students will not be permitted to register until this requirement has been met.

Orientation and Registration

In addition to the requirements listed above, UT Dallas holds a mandatory orientation session for new F and J visa status international students. Students will not be allowed to register without a permit showing that they have attended orientation.

Readmission of Former UT Dallas Students

Students who are not registered for three successive long semesters (not including summer session) at The University of Texas at Dallas must re-apply for readmission to UT Dallas before they can reenter the University. Students must meet the requirements of the catalog in effect for the term of readmission and, if accepted, will be bound by that catalog.

Students who have attended another college or university since they were last enrolled at UT Dallas must submit official transcripts of all such work with the application for admission to the Office of Enrollment Services, The University of Texas at Dallas, Mail Station HH 10, 800 W. Campbell Road, Richardson, TX 75080-3021.

Continuing students who have been out less than three long (fall or spring) semesters who wish to reenter the University must update their personal information online. A visit to the Office of the Registrar may be required.

Students returning to the University following academic suspension, see “Scholastic Suspension” in the Policies and Procedures section.

Special Admissions

Academic Fresh Start

An applicant for admission who is a Texas resident may seek to enter this institution pursuant to the “academic fresh start” statute, *Texas Education Code*, Section 51.931. An applicant must make this request in writing to the Office of Enrollment Services before the starting date of the semester in which the applicant seeks to enroll. After the applicant submits that request, UT Dallas will not consider in its admissions decision any academic course credits or grades earned by the applicant 10 or more years before the starting date of the semester in which the applicant seeks to enroll. In addition, an applicant admitted under Academic Fresh Start will not receive any course credit for courses taken 10 or more years before enrollment. The granting of Academic Fresh Start will neither affect THEA status nor remove the applicant’s responsibility to meet other conditions for admission.

High School Concurrent Enrollment

The Dean of Undergraduate Education will consider the co-enrollment of highly qualified high school students in specific UT Dallas courses on an individual basis. Permission for enrollment in particular courses will be granted at the discretion of the Undergraduate Dean in consultation with the course instructor and the Associate Dean of the school offering the desired course.

Co-enrollment decisions will be based on the academic credentials of the applicant, the scholastic rigor of the requested classes, the course prerequisites, and the demand for the class on the part of ongoing UT Dallas students. Only the Dean of Undergraduate Education may admit a co-enrolled student to the University.

To request co-enrollment, a prospective student must complete an application for admission and submit a copy of his/her high school transcript and all standardized test results. In addition, a letter must accompany the application from the student’s high school counselor endorsing the student’s enrollment in a particular course. The counselor must also assure the University that the requested courses represent instruction unavailable and/or advanced beyond that offered at the student’s high school.

High school students will not be considered for co-enrollment until they pass all sections of THEA, or meet one of the following criteria which exempt them from THEA requirements:

1. Score at least 23 on the ACT composite score, with a minimum of 19 on both the English and math tests;
2. Students with SAT composite score of 1605 or higher, with 500 in Critical Reading, 500 in Math and 500 in Writing, are TSI/THEA exempt. SAT scores can be no more than five years old. Residual SAT cannot be used for THEA exemption;
3. TAKS Score established by the Texas Higher Education Coordinating Board required to meet UT Dallas THEA standards.

NOTE: Residual SAT or residual ACT scores (scores acquired for use in the same institution where the test was given) are not accepted.

Non-Degree Seeking Students

A non-degree student is an undergraduate student who does not intend to seek a degree at UT Dallas but who wishes to take courses for credit. Up to 15 hours of such course work credit may be transferred to any degree program at the University; acceptance of any of these hours is at the discretion of the Undergraduate Associate Dean of the School into which the student wishes to be accepted.

Non-degree students must meet all requirements for admission beginning on page 16 of the catalog. To continue enrollment beyond one semester, non-degree students will be bound by the same scholastic standards that apply to regularly enrolled degree-seeking students.

A non-degree student whose work is unsatisfactory and who has been suspended from the University for academic reasons may not re-enroll without permission of the Dean of Undergraduate Education.

Non-degree students may not be eligible for financial aid. It is recommended that applicants contact the UT Dallas Financial Aid Office for more information at (972) 883-2941.

NOTE: International students must be enrolled in a degree program and therefore may not enroll as non-degree students; exceptions may be made for the summer session for those international students enrolled in a degree program elsewhere.

Second Baccalaureate Degrees

A student who has graduated from UT Dallas or any other regionally accredited college or university with an undergraduate degree may enter another undergraduate program at UT Dallas only with the approval of the Associate Dean of Undergraduate Education of the school housing the degree sought.

Transient Students

Students pursuing degrees at four-year colleges and universities other than The University of Texas at Dallas and who desire to transfer credit hours taken at UT Dallas to the degree-granting institution should apply for admission as transient students. Students will be admitted based on evidence of good academic standing at their home institution. In addition, students who have previously attended Texas state-supported institutions must provide evidence of their current TSI/THEA status.

Transient admissions are valid for a single semester. While UT Dallas credits are generally transferable to other institutions, the student is urged to seek prior approval of course work to be completed at UT Dallas from the institution to which it is to be transferred.

Transfer Student Admissions

Admission Through the Comet Connection

Many UT Dallas students do not take the conventional path that leads straight from high school to a four-year college degree. The Comet Connection Program was specifically created to enable transfer students to blend their college experiences seamlessly – and without financial penalty. It offers a Guaranteed Tuition Program for four years through the UT Dallas Plan. For more information or to receive an updated list of participating community colleges, contact one of our admissions counselors at the Welcome Center (972-883-2270) or visit <http://www.utdallas.edu/connect/>.

The University of Texas at Dallas accepts applications for admission from transfer students for the fall, spring, and summer semesters. UT Dallas welcomes applications from students who have begun their college work and are in good standing at other institutions of higher education. Classifications for admission, which are based on transferable semester credit hours, determine the admission criteria.

The University accepts for transfer credit only academic post-secondary course work completed with a grade of C (2.00 on a 4.00 point scale) or higher from regionally accredited institutions of higher education. The University of Texas at Dallas does not offer credit for nonacademic course work such as vocational, developmental or remedial studies, nor does it grant credit

for prior experiential learning. Course work that is accepted for transfer credit is applicable toward satisfying requirements for a specific UT Dallas major according to the same criteria as those used for equivalent UT Dallas courses (see Appendix II for further information on the transfer of lower-division course credit). Prospective transfer students from Dallas-area community colleges should refer to the UT Dallas Transfer Guides, available at the UT Dallas Office of Admissions, online at <http://www.utdallas.edu/transferguides/>, and at the community college academic advising offices to learn more about curricula appropriate to the various UT Dallas majors.

As soon as an application for admission, transcripts and any required test scores have been received, the Admissions Committee will evaluate the student's record to determine which credits earned at another college or university will transfer to UT Dallas.

The application of transfer credit to degree plans must be completed within the first semester of enrollment. An undergraduate advisor in the student's major, in consultation with the Associate Dean for Undergraduate Education, will determine how the transfer credits apply to UT Dallas degree requirements. The faculty, acting through the Associate Dean of Undergraduate Education, has the ultimate responsibility for applying transfer credit to their specific major requirements. Students are urged to contact their advising office upon receipt of the letter informing them of their admission to UT Dallas. See, also, the section on the Texas Success Initiative and THEA Placement Testing on page 42.

Applicants seeking admission to UT Dallas should be aware that they will need at least 51 upper-division hours to graduate (see "Graduation Requirements," page 31).

Freshman and Sophomore Transfer Students

Applicants to UT Dallas who have previously taken courses at one or more other accredited institutions of higher education and who are classified as freshmen or sophomores (see "Classification of Students," page 25) will be reviewed for admission using the same criteria described above for first-time freshmen. In addition, freshmen applications must have a cumulative GPA of at least 3.00 on a 4.00 scale, for all post-secondary academic course work. Sophomore applicants must have a cumulative GPA of at least a 2.50 on a 4.00 scale.

Junior and Senior Transfer Students

Applicants to UT Dallas who have previously taken courses at one of more other accredited institutions of higher education and who are classified as juniors or seniors (See "Classification of Students," page 25) are admitted automatically if their cumulative GPA for post-secondary academic course work is 2.50 or better, on a scale of 4.00 and they are judged to be making satisfactory academic progress.

Applications that do not qualify for automatic admission will be reviewed at the discretion of the school offering the applicant's major. Associate Deans will pay particular attention to the academic content and grades of the applicant's college-level work.

Transfer Students Admitted on Probation

If admitted on probation students must:

1. see an academic advisor before registering,
2. may not register for more than twelve hours,
3. may not drop or withdraw from any classes, and
4. must earn a grade of C or better in classes.
5. other conditions as prescribed by the admitting Associate Dean.

Students admitted on probation must earn a GPA of at least 2.20 for the first semester of enrollment. Failure to meet these conditions will result in suspension. Students admitted on probation by the Associate Dean of Undergraduate Education who are subsequently suspended from the University may be readmitted only by the Associate Dean (see "Scholastic Suspension," page 41).

Academic Policies and Procedures

Academic Advising

Academic advising is an integral part of undergraduate education. The goal of academic advising is to assist students in taking responsibility for developing meaningful educational plans compatible with their career and personal goals. Advising is more than imparting specialized knowledge; it includes helping students formulate important questions about the nature and direction of their education and helping them find answers to those questions.

While advisors confer with students about courses and educational experiences, students themselves are responsible for defining the content of their academic program and making progress toward an academic degree. Advisors will assist students in designing an appropriate course of study that will satisfy requirements for graduation (see "Academic Degree Requirements," page 69) as well as offer information on particular courses and university rules and procedures. All students must verify their class schedule each semester, must see that necessary transactions are completed, and are responsible for all documentation related to schedule changes and other transactions.

Students who have chosen a major should meet with an academic advisor in the appropriate school regularly and in a timely manner prior to semester drop deadlines and course registration. All freshmen are required to meet with their advisor in order to register for classes (see "Registration," page 36). Students admitted to UT Dallas as freshmen or as sophomores who have not declared a major are advised by the Undergraduate Student Advising Office, an integral part of the Office of Undergraduate Education. Students remain the responsibility of Undergraduate Education until they declare a major, at which time advising will be undertaken by an advisor in the student's program. Students must declare a major by the time they become juniors in order to have their program advising conducted by the advisors in the school in which they are registered.

Students are strongly encouraged to meet with their academic advisor, especially when they have earned 75 semester hours to establish and/or review their degree plan.

Academic Grievances

A student having a grievance regarding academic concerns may have the issue considered. Procedures for appeals of academic decisions can be found on page 335.

Academic Progress

A student is considered to be making satisfactory scholastic progress when he or she is carrying an approved schedule of classes, is not on probation, and has a GPA of at least 2.00 (C average) in the major and overall. Students that habitually drop a significant fraction of their schedule may lose the right to drop or may be dismissed from the University for failure to make adequate academic progress.

Adding a Class

See "Registration - Dropping, Withdrawing or Adding Courses" in this section.

Auditing Courses

Auditing allows a student to observe the instruction of a course without earning credit. Computer Science and Engineering courses, Geoscience courses, Physical Education courses, Foreign language courses, Studio/Ensemble courses, online courses, and any courses that charge a lab fee may not be audited. Participation and discussion is at the discretion of the instructor. Auditing grants only the privilege of hearing and observing and does not grant credit or access to online course tools.

A student may obtain an Audit Form in the Office of the Registrar beginning the first day of classes through Census Day. Students may audit courses only by obtaining permission of the instructor and by completing audit registration procedures. Please consult <http://www.utdallas.edu/student/registrar/> for more detailed audit procedures and associated fees.

Change of Address, Email or Name

A change of address may be completed online through the Student Information System (Galaxy).

A change of email may be completed online through the Student Information System (Galaxy). Electronic communication is the *preferred means of communicating important academic information. Students are *encouraged to keep their email address current. A student's UT Dallas email address is the official method of communication between faculty, administration and the student. It is the student's responsibility to maintain his/her UT Dallas email account at all times.

For name changes, students must fill out a 'Name Change Form' in The Office of the Registrar. Students must also bring a copy of their driver's license or their marriage certificate for proof of the name change.

Students must provide accurate local and permanent addresses and telephone numbers to Registrar's Office. This office must be notified immediately of any changes in address or telephone number. *All official correspondence is sent to the address last given to the Registrar. If a student has since moved but failed to correct this address, he or she will not be relieved of responsibility on the grounds that the correspondence was not delivered.

Classification of Students

Freshmen and sophomores are lower-division students.

Freshman: A student who has successfully completed fewer than 30 semester credit hours (SCH).

Sophomore: A student who has successfully completed 30-53 SCH.

Juniors and seniors are upper-division students.

Junior: A student who has successfully completed 54-89 SCH.

Senior: A student who has successfully completed 90 or more SCH.

Correspondence – Email

The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange.

All official student email correspondence will be sent *only* to a student's UT Dallas email address and UT Dallas will only consider email originating from an official UT Dallas student account. This allows the University to maintain a high degree of confidence in the identity of all individuals corresponding and the security of the transmitted information.

The University of Texas at Dallas furnishes each student with a free email account that is to be used in all communication with university personnel. The Department of Information Resources provides a method for students to have their UT Dallas mail forwarded to other accounts. To activate a student UT Dallas computer account and set email for forwarding go to <http://netid.utdallas.edu/>.

Courses

Course Load

Long Semesters – Although there is no general minimum course load, to be considered full-time, an undergraduate student must be enrolled in at least 12 semester credit hours during each long term (fall and spring semesters). The standard full-time course load is 15 semester credit hours.

Students wishing to register for more than 18 semester credit hours must have the permission of the Associate Dean of their school; undergraduates with an undeclared major may seek that permission from the Dean of Undergraduate Education. Students authorized to enroll in more than 18 semester credit hours in a long semester may not withdraw from any class without permission of the Associate Dean in their school or the Dean of Undergraduate Education for those students without

declared majors. Failure to secure that permission before withdrawing from a class will limit the student to a maximum of 18 semester credit hours in future semesters.

Summer Semesters - The maximum course load for a summer session is normally six semester credit hours for the five-week term, eight semester credit hours for the eight-week term, or twelve semester credit hours for the eleven-week term. Special arrangements may be made for a student enrolled in the twelve-week summer term to take up to 16 semester hours if the student needs no more than 16 semester credit hours to graduate at the end of the summer session.

In considering course load, students must be sensitive to special considerations such as financial aid and family health insurance which typically require some minimum number of hours per semester to maintain eligibility.

Course Numbering System

UT Dallas courses are assigned an abbreviation of the name of the subject area followed by a four-digit course number. The **first digit** of the course number gives the general level of the course, i.e., a 1 or 2 indicates that the course is of undergraduate freshman or sophomore level respectively, and a 3 or 4 indicates that the course is of undergraduate junior or senior level, respectively. Graduate courses begin with the digits 5 through 8.

The **second digit** of the course number indicates the semester credit hour value of the course. A course is given semester credit hour values according to the number of hours per week the course meets; the typical course is three semester credit hours. The type of course (e.g., lecture, laboratory, or seminar) and its meeting times determine the number of meetings per week and the length of each meeting. Variable credit-hour courses will have a "V" in the second position of the course number. The semester Class Schedule (online Course Lookup) will specify the semester credit hours available for a variable course during any given semester.

The **final two digits** give the course a unique number within a subject area. In some instances, a second course prefix and number in parentheses follows the first. The second course prefix and number designate the State of Texas Common Course Numbering System (TCCNS) equivalents when available. TCCNS is a standard set of designations for academic courses. Most Texas community colleges and universities have adopted this system to facilitate the transfer of academic credit from one institution to another. Wherever possible, courses at UT Dallas have the TCCNS number, although the subject designation may differ (e.g. BA versus BUSI for the Business Administration prefix).

In all cases, the course description is followed by an indication of the approximate number of contact hours per week in a semester for any lecture and/or laboratory components of the course; for example, (2-4) indicates 2 contact hours of lecture and 4 contact hours of laboratory per week.

Course Offerings

One of the following frequency of course offering codes is found at the end of each course description in this catalog:

- S = Course is offered at least once each long semester.
- Y = Course is offered at least once a year.
- T = Course is offered at least once every two years.
- R = Course is offered based on student interest and instructor availability.

Course – Repeating

See "Repeating Course Work" page 40.

Course Substitution (Disability Services)

Students requesting substitutions of course work as a reasonable accommodation must request this accommodation through the Disability Services Office according to the following deadlines:

- Students who **entered as freshmen** from high school: by the end of their fourth semester at UT Dallas
 - Students who **entered as transfer students**: by the end of their second semester at UT Dallas.
-

Please contact Disability Services with any questions about this type of accommodation or to initiate the request process.

To request a course substitution students must:

1. Meet with the Disability Specialist at Disability Services to discuss their need for a course substitution and to receive the application forms. Fully complete and sign the application form.
2. Provide current documentation of said disability to update material on file, if requested, and compose a narrative explaining the reasons for the request. This narrative must include any previous experiences with similar course work attempted prior to completing the application.
3. Students who are not currently served by Disability Services or have not previously been diagnosed with a disability should call Disability Services at (972)883-2098 to schedule an intake appointment.
4. Meet with the Associate Dean for Undergraduate Education in the school with which you are registered to discuss the proposed substitution and its potential impact on your degree program and to obtain the Associate Dean's signature on the application form. Courses approved by The University of Texas at Dallas will be the primary source for all approved course substitutions.
5. Completed forms must be returned to the Disability Services Office.

Credit/No Credit Classes

The Credit/No Credit option is intended to encourage students to take courses in topics outside of their major area where they would be competing with a significant number of students who are majoring in these outside areas. The Credit/No Credit option gives students the opportunity to broaden their education with less emphasis on grade points. A student will receive credit for C (2.00 on a 4.00 scale) work or better. No credit will be given for work that is below C (2.00 on a 4.00 scale).

The signature of the student's academic advisor is required on the Credit/No Credit request form. Students must submit completed Credit/No Credit grading requests to The Office of the Registrar by the Census Day of classes of the semester or term. Courses that were originally taken for a letter grade may not be repeated for Credit/No Credit.

No change of grade designation from grade to Credit/No Credit or Credit/No Credit to grade may be given after Census Day.

A course may be designated by the instructor as unavailable to students on a Credit/No Credit basis. Conversely, some courses may only be available for Credit/No Credit.

A student may not take any course used to satisfy a Core Curriculum requirement, any course in the major or minor that is listed as a major and related course on the student's degree plan, or major prerequisite, on a Credit/No Credit basis if a letter grade is normally awarded in those courses. Students in the Interdisciplinary Studies program may not exercise a Credit/No Credit option in their Foundations or Concentration.

For baccalaureate degree requirements, the Credit/No Credit option is limited to 12 semester credit hours or 20% of UT Dallas upper-division coursework, whichever is smaller. Courses in a student's major that are designated as Credit/No Credit are not included in this limit.

Courses taken on a Credit/No Credit basis will not be used in determining a student's GPA. Care should be taken by students in selecting courses for the Credit/No Credit option, as this may affect eligibility for honors. (See "Graduation with Honors," page 32)

Credit by Examination (AP-CLEP-IB-SAT)

Examination credit is evaluated only at the student's request. Students wishing to receive examination credit must first meet with an academic advisor to complete a request form that is then submitted to the Office of the Registrar.

Documentation of any lower-division credit established by examination through such programs as the AP (Advanced Placement Program) or the SAT II which the student wishes to apply toward college credit should be received by the University prior to registration. Academic hours awarded through credit by examination become a permanent part of the student's official UT Dallas college transcript.

Credit for admission may be established through testing programs such as the Advanced Placement Program (AP), the College Level Examination Program (CLEP), the International Baccalaureate (IB), and SAT II subject examinations. Guidelines for credit by examinations are available on the UT Dallas website at <http://www.utdallas.edu/dept/ugraddean/>. Test scores not on official transcripts must be submitted directly from the testing agency. UT Dallas will provide college credit to those who present an International Baccalaureate Diploma in accordance with Texas state law.

Not more than six semester hours of extension, credit by examination, or correspondence credit may be applied toward upper-division requirements. This credit must be upper-division credit earned at an appropriate accredited institution or through acceptable scores on approved tests. The University does not offer correspondence courses.

Criminal Background Check

Certain programs require students to submit to and satisfactorily complete a background check review as a condition of admission and/or participation in education experiences. Students who refuse to submit to a background check or who do not pass the background check may be dismissed from the program. The student is responsible for the costs associated with the criminal background check.

Dean's List

The top ten percent of all students in each school who complete 12 or more Semester Credit Hours during the fall or spring semesters will be recognized as members of the Dean's List of their respective schools. Students without a declared major are eligible for the Office of Undergraduate Education Dean's List.

Degree Plans

A degree plan is a definition of the course of study required to fulfill the requirement for graduation. A degree plan is "major specific" and is established through collaboration with the major's academic advisor and the student. Course changes within university sanctioned degree plans may be made with the approval of the Associate Dean of Undergraduate Education (ADU) or his or her designee. An initial degree plan must be filed as soon as possible after entering the major. The initial degree plan will be kept in the office of the academic advisor, ADU, or program head and will form the basis of the student's advisement.

In the semester preceding that in which a student plans to graduate the student is required to meet with her/his academic advisor to prepare a final degree plan that will be forwarded to the Office of the Registrar, along with the student's application for graduation (See "Graduation Requirements," page 31).

NOTE: A change of major requires preparation of a new degree plan.

Fast Track

See "Graduate Courses Taken in Fast Track Options," page 30.

Grades

Grade Changes

Faculty Initiative

After a final grade has been recorded by the Registrar, faculty may change grades only to correct a clerical error or replace a grade of "incomplete". A faculty initiated change of a final grade requires the written approval of the instructor, the department or program head or School ADU, and the Undergraduate Dean. Such grade changes must be submitted by the end of the eighth week of the following long semester after the grade was awarded.

Student Request

A student has the right to request a review of the grades received in any class.

Students must petition for a grade review by the end of the eighth week of the following long semester after the grade was received. The request must be submitted in writing to the appropriate faculty member who then has the remainder of that semester to take action (See also "Academic Appeals" in Appendix I).

Grade Point Average

Grade points are computed by multiplying the points for each grade by the number of credit hours; for example, 4.00 (A) x 3 (hours) = 12 grade points. A student's grade point average (GPA) is determined by dividing the total number of grade points earned by the number of semester hours for which a grade other than I, NC, or CR is received.

NOTE: Only grades earned at The University of Texas at Dallas are used in calculating the student's GPA.

An undergraduate student is limited to three grade-bearing enrollment attempts for any specific class. With regard to repeats, the grade from the first repeat will substitute for the original grade to determine a student's grade point average and to satisfy degree requirements. A second repeat will result in both repeats being averaged when computing the student's cumulative grade point average. (See "Repeating Course Work," page 40 for additional information).

Grading Scale

UT Dallas adopted the following grade scale for all undergraduate students effective fall 2000. Grades for courses completed prior to fall 2000 accrue point values as shown in the appropriate catalog.

<u>Grade</u>	<u>Description</u>	<u>Grade Points per Semester Hour</u>
A+		4.00
A	Excellent	4.00
A-		3.67
B+		3.33
B	Good	3.00
B-		2.67
C+		2.33
C	Fair	2.00
C-		1.67
D+		1.33
D	Poor	1.00
D-		0.67
F	Failure	0.00
I	Incomplete	
P	Pass	
W	Withdrawn	
WP	Withdrawn Passing	
WF	Withdrawn Failing	

Incomplete Grades (I)

A grade of Incomplete may be given, at the discretion of the instructor of record for a course, when a student has completed at least 70% of the required course material but cannot complete all requirements by the end of the semester. An incomplete course grade (grade of I) must be completed within the time period specified by the instructor, not to exceed eight weeks from the first day of the subsequent long semester.

Upon completion of the required work, the symbol I may be converted into a letter grade (A through F) by the instructor. If the grade of Incomplete is not removed by the end of the specified period, it will automatically be changed to F.

Extension beyond the specified limit can be made only with the permission of the instructor, the student's Associate Dean and the Undergraduate Dean. A student may not re-enroll in a course in which a grade of I remains.

Students may obtain a petition/documentation form for an Incomplete in the office of the student's Undergraduate Associate Dean. The form is to be submitted to the instructor from whom the Incomplete is sought. If a significant fraction of a semester is missed with cause, see the section on "Dropping, Withdrawing, or Adding Courses," page 37.

An instructor assigning an Incomplete must submit the petition/documentation form containing a description of the work required to complete the course to the Undergraduate Associate Dean of the school offering the course. Upon approval, a copy of the petition will be forwarded to the student's Undergraduate Associate Dean to be retained with the student's academic record. The instructor alone will be responsible for determining whether the requirements for completion are met and for assigning the grade in the course.

However, if the instructor who has signed the Incomplete is no longer associated with UT Dallas and the work is completed within the time allowed before the Incomplete lapses to an F, the Associate Dean of the instructor's college may assign a committee of appropriate faculty to evaluate the material and/or obtain any other information which may be required to assign the grade in the course.

Mid-Term Grades

Students are issued mid-term grades to apprise them of their progress within the semester. These grades are not a part of the permanent record and will not appear on academic transcripts. Some classes will only issue a grade of credit or no credit at mid-term.

Graduate Courses

Upper-division undergraduates who are within 30 hours of completing the baccalaureate degree may petition their major's Associate Dean to take graduate courses by completing the appropriate form available in the student's academic advising office. If approved, these graduate courses can be applied toward satisfying undergraduate degree requirements or can be designated for future application toward a graduate degree requirement at UT Dallas. The student must declare at the time of registration for the course, on a form provided by the Undergraduate Associate Dean, how each approved course is to be applied. Once applied, the options cannot be changed. Approvals will be subject to the conditions outlined in the following sections.

Graduate Courses Applied Toward an Undergraduate Degree

With the approval of the student's Undergraduate Associate Dean, up to 12 semester credit hours of graduate work taken as an undergraduate may be used for completing any baccalaureate degree at The University of Texas at Dallas. Pass/fail grading for graduate courses will be permitted in this category but must be approved by the instructor prior to the start of class.

Graduate Courses for Possible Future Use as Graduate Credit

Undergraduates may take up to 12 semester credit hours of graduate courses to reserve for possible application toward a graduate degree. To register, undergraduate students must obtain permission from the course instructor and from the graduate advisor of the program in which the course is offered. Such courses with an earned grade of B or better will be eligible for application to the student's graduate record when the student is admitted to a graduate program. Courses so taken will not apply to the student's undergraduate record and will not affect the student's undergraduate GPA.

Graduate Courses Taken in Fast Track Options

A number of programs at The University of Texas at Dallas offer an accelerated Fast Track option that allows students to take graduate-level classes while undergraduates. Specific admission requirements for Fast Track programs can be found within the descriptions of majors. Undergraduate students at UT Dallas who have been admitted to Fast Track programs leading to baccalaureate/master's degrees may, with the permission of the student's Undergraduate Associate Dean and graduate advisor, take a maximum of 15 specified semester credit hours of graduate work. The graduate hours may be used to complete the baccalaureate degree and also to satisfy requirements for the master's degree. The grade earned in the graduate coursework must be a B (3.00) or better to be applied to the master's degree requirements.

Graduate programs at UT Dallas will accept admission to a Fast Track program as satisfying Graduate Record Exam (GRE) criteria for admission to the graduate program. The School of Management requires students to meet its graduate admission

requirements including completion of the Graduate Management Admissions Test (GMAT) prior to receiving the baccalaureate degree.

Graduation

Application for Graduation

Students must complete an 'Application for Graduation' with their academic advisor and submit the application to The Office of the Registrar by the posted deadline. The procedures and deadlines for submitting this application are listed in the online Comet Calendar. Students are encouraged to apply for graduation prior to registering for their last semester. Students who apply after the posted deadline will be required to pay a non-refundable late fee. Completion of the graduation application is an acknowledgement that if meeting all degree requirements, the student will graduate at the end of the semester. Students cannot withdraw an Application for Graduation once it has been submitted.

Graduation Ceremonies

Ceremonies are held at the conclusion of each spring and fall semester. There is no summer graduation ceremony. Students scheduled to graduate following a summer semester may petition to take part in the preceding spring ceremony or following fall ceremony (see <http://www.utdallas.edu/registrar/graduation/> for details). Students who graduate at the conclusion of the fall semester may elect to participate in their graduation ceremony at that time or wait until the following spring graduation ceremony to participate.

Honors Convocation ceremonies are held at the conclusion of each spring semester.

Graduation Requirements

1. Each candidate for a baccalaureate degree must complete a minimum of 120 semester credit hours of course work (certain degree programs require more than 120 hours). Within this requirement, students must complete the following:
 - At least 51 semester credit hours of upper-division (3000/4000 level) course work, to include a minimum of 12 hours of advanced courses in the major subject.
 - At least 25 percent of the total semester credit hours required (for the School of Management, 50 percent of the total Business credit hours) must be taken at The University of Texas at Dallas.
 - At least 24 of the last 30 hours needed for a baccalaureate degree must be taken at The University of Texas at Dallas.
 - A maximum of three semester credit hours of physical education activity can be applied toward degree requirements.
 2. A minimum GPA of 2.00 on a 4.00 scale (C average) is required in the major and related courses, any declared minor, and overall. Major preparatory classes are not included in the calculation of the major GPA. Only grades earned at The University of Texas at Dallas are used in calculating this GPA.
 3. Students must satisfactorily complete all degree requirements specified by the school or college in which the degree is offered. (See "Degree Programs," page 69) In many instances, the college/school/department academic program requirements may exceed the University core requirements.
 4. Students must satisfy the Core Curriculum which is described in full on page 69.
 5. A candidate for a degree must be enrolled at UT Dallas during the semester in which The Office of the Registrar confirms completion of degree requirements. Students may register in absentia if enrollment in a course is not required. (In-absentia registration is explained on page 33 of this catalog.)
 6. Students must complete an official degree plan prepared by the academic unit. The degree plan must be on file no later than the completion of 75 earned semester credit hours.
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7. To qualify for a second baccalaureate degree, double degree, or double major from The University of Texas at Dallas, please review the "Other Degree Requirements" on page 73.

Note: General and specific requirements for degrees in undergraduate programs may be altered in subsequent catalogs.

Graduation Under a Particular Catalog

Provided the requisite courses continue to be offered, and given continuous enrollment (see section on "Readmission of Former UT Dallas Students" on page 21), students are bound by the Core Curriculum requirements of the catalog in force at the time of admission, within that catalog's six-year limit. For students who change their major, the graduation requirements for that major will be those stated in the catalog in force at the time of the change. The Core Curriculum requirements, however, remain those of the catalog in force at the time of matriculation unless the student specifically chooses those of a more recent catalog or the catalog in force at the time matriculation expires. Should any requisite major courses cease to be offered, substitutions would be made by the Associate Dean of Undergraduate Education.

Should any requisite Core Curriculum courses cease to be offered, substitutions will be made by the Office of Undergraduate Education. These requirements must be met by all students pursuing a baccalaureate degree at The University of Texas at Dallas, regardless of their major. A specific course may be used to satisfy only one core requirement. Individual academic programs may require courses contained in parts of the University Core Curriculum to satisfy particular degree requirements. Students may be required to take extra courses if they fail to select these courses.

Administrative requirements such as minimum grade point requirements may change for all students with the issuance of a new catalog.

Graduation with Honors

Students who show particular distinction in scholarship at the University are afforded the opportunity of graduating with Latin Honors and/or School Honors. Only grades earned at The University of Texas at Dallas are used in determining graduation with honors.

Collegium V

Students graduating with Collegium V Honors will complete at least 24 semester credit hours within the programs and maintain a 3.50 cumulative grade point average on at least 45 hours of graded credit. In their senior year, students must complete a senior thesis or senior project. They also must participate in a select number of extra-curricular events over the course of their academic career.

Latin Honors

Graduates may earn one of three degrees of Latin Honors: summa cum laude, magna cum laude, or cum laude. Requirements for graduation with honors are as follows:

A minimum of 45 UT Dallas graded credit hours are required. Each Latin Honors level requires a minimum grade point average (GPA) to be attained over all course work taken at The University of Texas at Dallas. In the case of a student with a double major who wishes to graduate with honors, a single honors designation will be awarded. Students graduating with double degrees who wish to receive honors for both degrees must complete separate honors requirements for each degree.

The grade point requirements for Latin Honors are issued by the University in the summer of each academic year and apply to graduates in the following academic year. The thresholds for each level of honors are determined from a rolling average of the grades of all graduates for the previous six long semesters. Averages are computed separately for each school within the University. The GPA that represents the top five percent of all graduates in a particular school will be considered the threshold for awarding summa cum laude honors. The GPA that defines the next 10 percent in each school will be the lower limit for magna cum laude. The average grade that defines the next 15 percent in each school will be considered the benchmark for awarding cum laude honors. A minimum GPA of 3.40 is required for any Latin Honors.

Major Honors

Students may graduate with honors from their individual schools based on participation in their school's Honors Program. Each program provides two levels of recognition, Honors and Distinction. All students must have completed a minimum of 30 graded semester credit hours to qualify for major honors.

The requirements for school honor's recognition vary across schools. Students should review the descriptions within the school section of the catalog. To graduate with school distinction honors, students must complete an undergraduate thesis judged by faculty to be of exemplary quality.

Collegium V, Latin, and School Honors are all reported on students' transcripts and diplomas.

In Absentia Registration

In absentia registration provides an opportunity for a degree candidate to register for the semester in which the degree is to be completed without taking formal course work. In absentia registration is permissible for a degree candidate who is removing an incomplete grade (I) or for a degree candidate who has left the University and is transferring authorized and approved credit to qualify for completion of a degree. In absentia registration requires a nonrefundable/nontransferable fee (see "In Absentia Fee" on page 51).

Independent Study

A student may take a maximum of 20 percent of the total hours of course work undertaken at UT Dallas as Independent Study.

International Education

Information about educational opportunities in other countries, including study abroad, international internships, international research opportunities, and international scholarship programs, is available at the Office of International Education (OIE), Jonsson Building, 5th Floor, Room JO 5.504. Students are required to attend an advising session before seeking staff assistance in selecting the program most appropriate to their individual needs and interests. The advising sessions include University policies governing study abroad, program options, funding sources, and application and selection procedures. Information is also disseminated through publications, special events, group meetings, individual appointments, reference materials and at the OIE website: <http://www.utdallas.edu/oie/>.

Eligibility

Undergraduates must have earned a minimum of 30 credit hours at The University of Texas at Dallas. Freshmen, first-semester transfer students, non-degree seeking students, and students who plan to graduate within one semester are not eligible to participate.

All students must have a minimum (semester or cumulative) GPA of 2.00. Students with less than a 2.50 GPA may not be eligible for some affiliate or exchange programs for study abroad. Study abroad is limited to two (2) semesters.

Financial Assistance

Information about other funding opportunities for study abroad is available at The Office of Financial Aid. Students are eligible to use financial aid for those programs that are affiliated with The University of Texas at Dallas. Programs outside of official affiliations are not eligible for financial aid. Students are strongly encouraged to have a declared major; otherwise there could be financial aid implications.

Grades/Credits

Credits earned in Exchange Programs will translate directly onto The University of Texas at Dallas transcript as an earned letter grade. All other program earned credits will be transcribed as Credit/No Credit. Grades of 2.00 on a 4.00 point scale will be

reviewed by The Office of the Registrar and assigned credit. Course work will be reflected on the student's transcript but only courses taken on the UT Dallas campus are considered in the UT Dallas GPA.

No more than 20% or 12 hours (whichever is smaller) of upper-division credits taken as Credit/No Credit may be used toward graduation credits. Courses in a student's major that are designed as Credit/No Credit are not included in this limit.

Core Curriculum courses taken while studying abroad must be taken for a grade. A 2.00 on a 4.00 scale must be earned to transfer to UT Dallas.

It is the student's responsibility upon returning to the UT Dallas campus to provide The Office of the Registrar with the institution's published catalog description of the course and an official transcript.

Official Transcripts

Transcripts received from foreign institutions in a language other than English must be translated by a professional service for official posting of transfer credit. The use of a professional translation service will ensure the authenticity, consistency, and accuracy of transferring credits. It is the responsibility of the student to provide an English translation of the transcript and to pay any associated costs; transcript translation services are not provided by the University.

Programs

The Associate Deans in each school determine how general courses and Core Curriculum courses will be applied to The University of Texas at Dallas degree plan. Approval may be required by more than one Associate Dean for courses outside the student's major. All courses must be pre-approved by the Associate Dean.

Affiliated Studies

Students register for affiliated studies (STAB Generic) when they participate in study abroad programs by organizations and institutions with which the University has an affiliation. Students enrolled in affiliated studies are considered full-time students. Credits are awarded as transfer credit. Students are not assessed UT Dallas tuition and fees and are responsible for paying program fees directly to the affiliate program.

Exchange Programs

Students in exchange programs are registered for a block of coursework in study abroad (STAB Exchange). Associate Deans in the appropriate academic departments review the student's work to determine equivalent UT Dallas credit upon completion. Students will earn resident credit. Students are assessed the normal UT Dallas tuition and fees for the number of semester credit hours they undertake for that particular semester.

Faculty-led Programs

Academic units may offer courses taught abroad as part of their regular curriculum. Students who take these courses follow normal registration procedures and are assessed normal tuition and fees for the number of semester credit hours they undertake. Additional fees are charged to cover program costs.

Travel Warnings

The University of Texas at Dallas does not recommend or support study abroad programs in regions of the world for which the U.S. State Department has issued a "Travel Warning." Applications to study in regions affected by Travel Warnings will not be approved. UT Dallas students will not be eligible to apply their financial aid for such experiences. A Travel Warning is an official recommendation for travelers; it usually discourages non-essential travel in the specified region. Because Travel Warnings are issued in response to specific world events, however, they may have expiration dates.

Internship/Cooperative Education Program

The Internship/Cooperative Education Program (Internship) places students in work assignments related directly to their fields of study. The experience provides students with an opportunity to apply what they learn in the classroom to practical settings while

responding to the immediate needs of employers. In addition, students are able to stay in school and earn money to defray college expenses, clarify academic interests, and target specific job markets.

Internships may be taken for credit depending on the student's degree program requirements. The University of Texas at Dallas has a flexible internship program and arrangements include the following:

- Parallel: full-time or part-time work and full-time or part-time school.
- Summer: full-time or part-time summer employment.
- Alternating Semesters: full-time work alternating with semesters of full-time school.

For more information about the program, contact the Career Center in McDermott Library 1.312; Telephone: (972) 883-2943. Email: careercenter@utdallas.edu
Website: <http://www.utdallas.edu/student/career/>.

Major

Change of Major

Students wishing to change majors should complete a 'Change of Major Request Form' in their academic advisor's office before registration and no later than the first day of classes of a semester/term.

Students with a cumulative GPA below 2.00 may only change their major with permission from the Associate Dean of their current major and the Associate Dean of their intended major. Both Associate Deans' signatures are required on the 'Change of Major Request Form' prior to its submission to the Office of the Registrar.

If the change of major is approved, the student will then be responsible for meeting all program requirements and course prerequisites of the catalog in effect at the time of the change. In the first semester of change to a new major, the student must meet with an academic advisor to prepare a degree plan. The Core Curriculum requirements, however, remain those of the catalog in force at the time of matriculation unless the student specifically chooses those of a more recent catalog.

Deadlines and Fees

The Office of the Registrar will accept 'Undergraduate Change of Major' forms for processing up to the close of business on the first day of classes of each semester. Forms received after the first day of classes will be processed effective for the following semester.

All students are allowed to change majors twice in a given academic year at no charge. The academic year begins August 1st and is completed the last day of July each year.

If a student elects to change majors more than two times during an academic year, the third change requires a \$25.00 fee. EXCEPTION: There is no charge to move to, or from, the "undeclared major" category.

Declaring a Major

Undergraduate students must declare an academic course of study or major by the time they have earned 54 semester credit hours in order to continue enrollment. These hours include UT Dallas credits, credit transferred from other institutions, and hours awarded through credit by examination (AP, CLEP, IB, SAT, etc.).

Transfer students who have earned 54 hours at the time they apply for admission to UT Dallas must declare a major at the time of admission.

Continuing students on academic probation who pass the 54 hour benchmark without declaring a major have a maximum of two long semesters to regain good academic standing. During this period students will remain undeclared. A student who fails to regain good standing within two long-semesters will be suspended from the University.

Military Service Activation Interruption of Education

From time to time, students who are reservists or members of the National Guard may be called to active duty in the U.S. military after a semester has begun. These students have several options for the treatment of their enrollment and tuition.

Option to Remain Enrolled and Complete Coursework Following Brief Military Service

Under certain circumstances, a student who is required to participate in active military service is excused from scheduled classes or other required activities and will be allowed to complete an assignment or exam within a reasonable time after the absence. The excused absence is permitted only if the student will miss no more than 25% of the total number of class meetings or the contact hour equivalent (not including the final examination period) for the specific course or courses in which the student is enrolled at the beginning of the period of active military service.

Option to Withdraw, Receive Incomplete Grade, or Receive Final Grade

A reservist or member of the National Guard called to active duty in the U.S. military who receives activation orders after the start of a semester has four other options for the treatment of tuition and fees paid to The University of Texas at Dallas and transcript notation. According to state statutes and Coordinating Board rules, the student may request any one of the following:

1. The Office of the Registrar will process the withdrawal of the student from all classes and record "Withdrawn-Called to Military Duty" (WM) on the student's transcript and the Bursar Office shall refund the tuition and fees paid by the student for the semester in which the student withdraws; *or*
2. The Office of the Registrar may grant a student who is eligible under UT Dallas guidelines an incomplete grade (See "Incomplete Grades" section of the catalog for eligibility) in all courses by designating "Incomplete-Called to Military Duty" (XM) on the student's transcript. Please note: XM grades must be resolved within one year from the "release from active duty" date on military orders; *or*
3. The student may petition the instructor to assign an appropriate final grade or credit for the course after successfully completing a substantial amount of course work and having demonstrated sufficient mastery of the course material; *or*
4. If the student withdraws before the Census Day of the semester in which the student is called to active military duty and the student requests Military Leave, courses will be dropped. Courses dropped on or before Census Day will not appear on the student's transcript.

NOTE: There are no provisions for refunds for active duty service members who are deployed as a result of military orders or for individuals who choose to enter the service. The provisions listed above apply only to reservists or members of the National Guard called to active duty.

Option for Automatic Readmission Following Military Service

A reservist or member of the National Guard called to active duty (not including routine National Guard training) may be readmitted without application or payment of additional application fees within one year of the "release from active duty" date on military orders. Applicable students will retain academic standing and financial eligibility if they meet current eligibility requirements other than continuous enrollment or other timing requirements.

Registration

Students may participate in a course only after officially registering and paying through the proper procedures. The Office of the Registrar officially notifies an instructor of the names of the students enrolled in a course. Students will not receive credit for courses for which they are not registered.

Auditing a Class

(See the "Academic Policies and Procedures" section on page 24).

Concurrent Enrollment Tuition

A concurrent enrollment agreement is in place between The University of Texas at Dallas, The University of Texas at Arlington and The University of Texas Southwestern Medical Branch. This agreement allows any student enrolled concurrently between these institutions to receive a waiver of certain fees. Students must apply for concurrent enrollment with The Office of the Registrar.

In addition, *Texas Education Code* 54.011 states that when a student registers at more than one public institution of higher education at the same time, his tuition charges shall be determined in the following manner:

1. The student shall pay the full tuition charge to the first institution at which he is registered; and in any event he shall pay an amount at least equal to the minimum tuition specified in this code.
2. If the minimum tuition specified in this code for the first institution at which the student is registered is equal to or greater than the minimum tuition specified in this code for the second institution at which the student is registered concurrently, the student shall not be required to pay the specified minimum tuition charge to the second institution in addition to the tuition charge paid to the first institution, but shall pay only the hourly rates, as provided in this code, to the second institution.
3. If the minimum tuition specified in this code for the first institution at which the student is registered is less than the specified minimum tuition charge at the second institution (that is, if the second institution has a higher minimum tuition charge specified in this code), then the student shall first register at the institution having the lower minimum tuition and shall pay to the second institution only the amount equal to the difference between his total tuition charge at the second institution and his total tuition charge at the first institution, but in no case shall the student pay to the second institution less than the hourly rates as provided in this code.
4. If a student is considered to be a Texas resident and therefore qualified to pay Texas resident tuition rates by one institution at which he is registered, that student shall be considered a Texas resident at each of the institutions at which he is concurrently registered for the purposes of determining the proper tuition charges. Nothing in this subdivision shall be so construed as to allow a nonresident to pay resident tuition except at institutions covered by Section 54.060 of this code.

Dates for Registration

Registration dates are listed in the online Comet Calendar (<http://www.utdallas.edu/calendar/>). All dates for registration and late registration and all formal procedures for registration are listed in the online Class Schedule (<http://www.utdallas.edu/student/registrar/lookup/>) for each semester by The Office of the Registrar. New students will have an opportunity to register at orientation. All freshmen, undeclared, and transfer students are required to meet with their academic advisor prior to registering for classes.

Continuing and transfer students may register during the following registration time periods:

- Week 1: Degree-seeking graduate students and undergraduate seniors
- Week 2: Graduate students, undergraduate seniors, juniors and sophomores
- Week 3: Graduate students, undergraduate seniors, juniors, sophomores and freshmen
- Week 4: Graduate students, undergraduate seniors, juniors, sophomores, freshmen, and non-degree-seeking undergraduates.

Students should take advantage of early registration opportunities to ensure enrollment in the classes they select. Web registration (<http://galaxy.utdallas.edu/>) begins approximately one week after the Course Lookup goes live for the semester. Refer to the Comet Calendar and the online Academic Calendar for specific dates and procedures.

Dropping, Withdrawing, or Adding Courses

The University makes a distinction between **dropping** a class prior to the 12th class day (Census Day) which is not posted to the student's permanent record, and **withdrawing** from a class (following Census Day) at which point the academic action becomes a part of the student's transcript.

A student who enrolls in a Texas public institution as a first-time **freshman** in **fall 2007** or later will not be allowed to withdraw from more than six courses over his or her entire undergraduate career as a result of a new Texas law. This

includes all classes taken at any Texas public institution of higher education. There are certain legislatively-mandated reasons for withdrawing from a class that do not count toward the six-class limit. These reasons include, among others, a severe illness or other debilitating condition that affects the student's ability to complete the course; the student's need to care for a sick, injured, or needy person if the care affects the student's ability to complete the course; the death of the student's family member or of a person considered to have a sufficiently close relationship to the student; the active duty service as a member of the Texas National Guard or the armed forces of the United States of the student, a family member, or a person considered to have a sufficiently close relationship to the student; or a change in the student's work schedule that is beyond the control of the student and that affects the student's ability to complete the course.

The University is developing an appeal process by which students can request exemption for a specific withdraw. Rules and regulations regarding this new law are currently being developed and will be published as they become available at <http://www.utdallas.edu/registrar/>.

As always, students may drop classes without penalty prior to the 12th class day (Census Day) in any semester.

Dates and time limits for dropping or adding courses are listed in the Comet Calendar (<http://www.utdallas.edu/calendar/>) and the online Academic Calendar.

Newly-admitted students to The University of Texas at Dallas wishing to add courses or register for courses must do so prior to the first day of classes.

Students who drop all courses in a given semester must officially withdraw from the University. (See "Withdrawal/Resignation from the University," page 40).

Students who habitually drop a significant fraction of their schedules may lose the right to drop or may be dismissed from the University for failure to make adequate academic progress (See "Academic Progress," page 24).

Administrative Drop

Students may be dropped from a course for which they have not satisfied the prerequisites.

Deadlines for Adding or Dropping a Class

NOTE: Students should retain copies of all add and drop forms for at least one year following the end of the semester in which the student initiates a drop or add course action.

Deadlines vary during the shorter summer sessions. It is the student's responsibility to review the Comet Calendar (<http://www.utdallas.edu/calendar/>) or the online Academic Calendar for specific summer deadlines.

Deadlines for dropping a course are based upon the course and not the student. For example, when an undergraduate student takes a graduate course, the drop procedures for graduate courses take effect.

Add

Beginning the first (1st) day of class through the sixth (6th) class day, students may add a class on-line without the instructor's or advisor's signature. However, students in the following categories must still meet with an academic advisor before adding classes:

- Students newly admitted to The University of Texas at Dallas (including transfer students and freshmen),
 - Students without declared majors and those students who are not in good academic standing. Please see the Comet Calendar's (<http://www.utdallas.edu/calendar/>) academic section for specific deadlines.
-

Drop

Courses dropped on or before Census Day will not appear on the student's transcript.

Students may drop a class on-line until the end of business on Census Day without any permission required.

After Census Day, permissions to drop are required from the school or college in which the student is admitted.

W Period

Through the fourth class week of a long semester, students may withdraw from courses by completing a drop form and having it signed by their academic advisor and course instructor. A grade of "W" (withdrawn from course) will appear on the student's transcript.

WP/WF Period

During the fifth (5th) through ninth (9th) class weeks of a long semester, students who submit a completed drop form will receive a grade of "WP" (withdrawn passing) or "WF" (withdrawn failing) as determined and assigned by the course instructor. The student must obtain the instructor's and advisor's signatures on the form. If a grade of "WP" or "WF" is not recorded by the instructor on the drop form, then the default grade of "WF" will be assigned.

After the ninth (9th) class week of a long semester, a student may only withdraw from a class for non-academic reasons.

Drop Appeal Procedures

Students who believe they have dropped a course, but receive a grade for that course at the end of the semester, have one calendar year in which to provide documented proof of the processed drop to the Dean of Undergraduate Education to appeal the posted grade.

Non-academic Drops

To drop a course for non-academic reasons, students must complete a written petition detailing the nature of the request and include supporting documentation. Non-academic drop petitions are to be obtained from the Undergraduate Student Advising Office (JO 4.800). The Director of Undergraduate Advising will distribute the petition to a committee whose members will independently review the petition and either approve or deny the request to drop. The Director will inform the student of the outcome.

NOTE: It is extremely important that students petitioning to drop a class for non-academic reasons continue to attend and perform in the class if possible, until the petition request is resolved. If the petition is approved, the student will receive a grade of "W" for the course. Otherwise the student will receive the grade earned in the course.

Non-academic drop petitions may be submitted at anytime during the semester.

Readmission of Former UT Dallas Students

(See page 21).

Visiting U.T. System Students Program

The Visiting U.T. System Students Program is designed to allow upper-level and graduate or professional students enrolled in an institution of the UT System to take courses or engage in research at another institution within the UT System during a regular semester or summer session. Each campus must appoint an individual designated to coordinate the visiting student program at both the home and host institution. Every campus has the responsibility to

determine the academic qualifications necessary for their students to participate in the visiting program. Approval of a student's proposed visitation will be contingent on space and desired courses being readily available in the proposed visitation program and, for participation in a research laboratory, on approval of the director of the laboratory (Regent's Rules 50701).

Withdrawal/Resignation from the University

A student who wishes to withdraw entirely from the University must submit a completed Registration, Drop/Add and Withdrawal Form (<http://www.utdallas.edu/student/registrar/forms>) to The Office of the Registrar. Students must withdraw on or before the last WP/WF withdrawal day for that semester.

Religious Holy Days

The University of Texas at Dallas will excuse a student from class or other required activities for the travel to and observance of a religious holy day for a religion whose places of worship are exempt from property tax under Section 11.20, *Tax Code, Texas Code Annotated*.

The student is encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, preferably in advance of the assignment.

The student, so excused, will be allowed to take the exam or complete the assignment within a reasonable time after the absence: a period equal to the length of the absence, up to a maximum of one week. A student who notifies the instructor and completes any missed exam or assignment may not be penalized for the absence. A student who fails to complete the exam or assignment within the prescribed period may receive a failing grade for that exam or assignment.

If a student or an instructor disagrees about the nature of the absence [i.e., for the purpose of observing a religious holy day] or if there is similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the chief executive officer of the institution, or his or her designee. The chief executive officer or designee must take into account the legislative intent of TEC 51.911(b), and the student and instructor will abide by the decision of the chief executive officer or designee.

Repeating Course Work

An undergraduate student is limited to three grade-bearing enrollment attempts for any specific class. An enrollment is considered grade bearing if a student receives a distributed grade (i.e. A through F) or a mark of 'W', 'WP', 'WF', 'NC' or 'CR'. A student attempting the same class for the third time will be charged a penalty fee equivalent to the out-of-state tuition for the same number of semester credit hours. Courses cross-listed under more than one course prefix are considered the same course.

The grade from the first attempt will not be used in computing a student's grade point average. All further repeats will be used in computing the student's cumulative grade point average. (See also "Grade Point Average," page 29 and "Transfer Credit," page 45 for more detail). The grade from the last attempt will determine credit earned to satisfy degree requirements.

Regardless of the number of times a course is repeated, any single course can contribute only once to the number of hours required for graduation. A limited number of courses, such as independent study courses, may be repeated for credit. Students should contact their academic advisor to determine the application of such course credit toward graduation. When a student repeats a course at UT Dallas, the student is responsible for submitting a completed 'Repeated Course Adjustment Form' to The Office of the Registrar in order to initiate the change on the student's permanent record. With the permission of the instructor, a student may audit a course which has previously been taken for credit.

All grades will appear on the student's transcript. A notation beside the first grade will indicate that the course has been repeated. Courses that were originally taken for a letter grade may not be repeated for Credit/No Credit in lieu of a letter grade.

NOTE: Students who are Texas residents should be aware that state law limits the number of semester credit hours an undergraduate Texas resident may attempt while paying tuition at the rate provided for Texas residents. See the section on "Excessive Undergraduate Hours" on page 48.

Courses transferred for credit to UT Dallas from another accredited college or university may not be repeated for additional credit.

Students who fail a course in residence at UT Dallas may repeat the course at another accredited college or university. Upon completion of the course with a grade of at least 'C' (2.00 on a 4.00 scale), the class may be transferred to UT Dallas where it will meet the content requirements of the course failed in residence and contribute hours toward graduation. However, the grade of 'F' earned at UT Dallas will remain a part of the student's academic record and will be computed as a part of the cumulative grade point average (GPA).

Scholastic Probation

All students who show a cumulative grade point deficiency, defined as a cumulative University of Texas at Dallas grade point average (GPA) below a 'C' or 2.00 on a 4.00 scale, are placed on scholastic probation automatically by notation of such status on their academic record. The Associate Dean of Undergraduate Education may also place a student on probation who fails to maintain at least a 2.00 GPA in the major and related courses, independent of the overall GPA.

Students on scholastic probation must meet with an academic advisor prior to registration. Such students may not register for more than 12 semester credit hours, must earn a 2.20 GPA each semester while on probation, and may not drop or withdraw from classes. Violation of these requirements may lead to the student's suspension from the University.

Grade point deficiencies incurred at UT Dallas must be removed through additional course work at UT Dallas. Grade points earned at other institutions are not used in computing the GPA and may not be used to remove a grade point deficiency.

Students who leave the University on scholastic probation will be readmitted on scholastic probation, even if they have attended another institution in the interim. If a student withdraws from the University while on scholastic probation, and if this action results in an additional grade point deficiency, the student has failed to meet the minimum requirements for removal of scholastic probation and will be placed on scholastic suspension.

Scholastic Suspension

A student is automatically placed on scholastic suspension by the University for failure to meet the terms of scholastic probation. A student who is under scholastic suspension will be placed on hold and may not enroll in, audit, or visit a class unless readmitted as described below. Notice of this scholastic suspension will show on the student's transcript.

Students in a major who are placed on scholastic suspension by the University for the first time may be readmitted only by permission of the Associate Dean of Undergraduate Education. Non-degree-seeking students and students with undeclared majors who are placed on suspension for the first time may be readmitted only by the permission of the Dean of Undergraduate Education. Students thus readmitted may be subject to additional probationary conditions placed upon them by the Associate Dean of Undergraduate Education.

A student who has been placed on scholastic suspension more than once or has a grade point deficiency of 30 grade points or more will be suspended from the University indefinitely and may be readmitted only by petition of the Associate Dean of Undergraduate Education to the Dean of Undergraduate Education. Students thus readmitted may be subject to additional probationary conditions placed upon them by the Associate Dean of Undergraduate Education, and/or by the Dean of Undergraduate Education.

A student who reenters the University after scholastic suspension will reenter on scholastic probation.

NOTE: If, following academic suspension, a student petitioning for re-admission also wishes to change majors, the student must complete the 'Change of Major Form' prior to petitioning for re-admission to the University (See "Change of Major," page 35 for details.) If the Change of Major is approved the receiving Associate Dean will determine the validity of the re-admission petition.

Texas Higher Education Assessment/Texas Success Initiative (THEA/TSI)

Registration Requirements

The Texas Success Initiative (TSI) is a state mandate that requires students to be assessed in reading, writing and math skills prior to enrolling in college, and to be advised based on the results of that assessment (see <http://www.thecd.state.tx.us/TSI/FAQ.htm>). Each institution determines an individualized education plan to encourage academic success for those students who score below a deviation standard (or do not pass the THEA test). Students will be required to retest if they do not pass the initial test. Students who are non-degree seeking or non-certificate seeking must meet TSI standards.

UT Dallas uses the Texas Higher Education Assessment (THEA), formerly the TASP test, offered by Pearson (National) Evaluation Systems to measure student proficiency in the basic areas of study for fulfillment of the TSI requirement.

UT Dallas requires incoming students who are not TSI exempt to take the THEA test. The required passing standards on the THEA are:

- Reading – 230
- Math – 230
- Writing - 220

UT Dallas students must take the THEA or Quick THEA test to satisfy the test requirement. No other types of tests can substitute for the THEA test requirement unless a student is currently enrolled at another institution when he or she takes an alternative test.

Students may register to take the Quick THEA with Learning Resources, (972)883-6707

TSI Exemptions

The following students are TSI exempt, but are required to take the THEA as a placement test and meet the standards listed above prior to enrolling in any additional courses in the areas of reading, writing, and mathematics.*

1. Students who are non-degree seeking or non-certificate-seeking.
2. Students who have transferred to UT Dallas from an accredited private or independent institution of higher education having completed a traditional academic Associate's of Arts or Sciences degree.
3. Students who have previously attended any Texas public institution and have been determined to have met readiness standards by that institution. (*The explanation for complete or exempt must be available on the student's transcript.)
4. Students who are enrolled in a certificate program of one year or less at a Texas public junior college, public technical institute, or public state college.
5. Military Service:
 - Students who are serving as active duty members of the Armed Forces of the United States are TSI exempt. Official documentation of active duty status for the enrollment period is required. Students must file a Verification of Active Duty form each semester.
 - Students who are on active duty in the Texas National Guard are TSI exempt. A verification letter from the Unit Administrator is required each semester,
 - Students who are currently serving, and have for at least the last three years before enrollment served, as members of a reserve component of the armed forces are THEA exempt. A verification letter from the Unit Administrator is required each semester.
 - Students who on or after August 1, 1990, were honorably discharged, retired, or released from active duty as members of the Armed Forces of the United States, Texas National Guard, or of a reserve component of the Armed Forces of the United States are TSI exempt. A copy of the DD214 form showing this status is required.
 - Students who are transferring to The University of Texas at Dallas from a private or out-of-state, regionally accredited, college or university may meet sections of the Texas Success Initiative and the THEA placement test based on a grade of C or better in courses that are equivalent to the following courses at UT Dallas:

Reading

- (A) HIST 1301, 1302 (U.S. History);
- (B) ENGL 2321, 2322, 2323 (British Literature);

- (C) ENGL 2331, 2332, 2333 (World Literature);
- (D) ENGL 2326, 2327, 2328 (American Government);
- (E) PSY 2301 (General Psychology); or
- (F) GOVT 2301, 2302, 2305, 2306 (American Government)

Mathematics

- (A) MATH 1300;
- (B) MATH 1306;
- (C) NATH 1314;
- (D) MATH 1325;
- (E) MATH 1326;
- (F) MATH 2312 and courses in calculus.

Writing

- (A) ENGL 1301 (Composition I/Rhetoric I); or
- (B) ENGL 1302 (Composition II/Rhetoric II).

Students who have achieved the following standards are TSI exempt and are not required to take the THEA as a placement test prior to registration for courses at UT Dallas.

- **ACT** - Students with ACT composite score of 23 or higher, with individual math and English scores of no less than 19 are both TSI and THEA exempt. ACT scores can be no more than five years old.
- **SAT** – Students with SAT composite score of 1070 or higher, with 500 verbal and 500 math, are TSI/THEA exempt. SAT scores can be no more than five years old. Residual SAT cannot be used for THEA exemption.
- **New SAT** - Students with SAT composite score of 1605 or higher, with 500 critical reading, 500 math and 500 writing sample score are TSI exempt. SAT scores can be no more than five years old.
- **TAAS** - Students with exit-level TAAS scores of 1770 or higher on writing, TLI of 89 in reading, and TLI of 86 in math are TSI exempt. TAAS scores can be no more than three years old. (The exit-level TAAS is a test given in Texas Public High Schools).
- **TAKS** - Students with EXIT TAKS scores of 2200 in English Language Arts and Math as well as a score of 3 in the writing sample (which is often not printed on your high school transcript, but can be found on the Exit level TAKS score report) are TSI exempt. TAKS scores can be no more than three years old.
- Students who have a bachelor's degree from an accredited institution in the United States.

The following alternative tests may be used to satisfy UT Dallas's TSI requirements, but only if taken while registered at the school where the alternative test is taken. Furthermore, please be aware that the THEA writing requirement is fulfilled by meeting the minimum score requirements on both the writing and essay sections of the tests below:

- **ASSET** – Students with the following minimum scores are TSI/THEA exempt. Reading: 41, Math: 38, Writing: 40/ Essay: 6
- **COMPASS** – Students with the following minimum scores are TSI/THEA exempt. Reading: 81, Math: 39, Writing: 59/ Essay: 6
- **ACCUPLACER** – Students with the following minimum scores are TSI/THEA exempt. Reading: 78, Math:63, Writing: 80/Essay: 6
- **MAPS** – Students with the following minimum scores are TSI/THEA exempt. Reading: 29, Math: 22, Writing: 21/ Essay: 6. MAPS scores are acceptable only if taken prior to 9/1/2003.

Note: Transcripts should be submitted to UT Dallas as soon as possible. Official evaluation must be completed to determine course equivalencies before a TSI waiver will be granted.

The Learning Resources Unit of Undergraduate Education provides Developmental Education for the UT Dallas campus. When undergraduate students are first admitted at UT Dallas, they are immediately TSI liable. If they are not previously either TSI exempt or TSI waived, undergraduate students must take the Quick THEA or the THEA examination prior to the beginning of their first semester at UT Dallas. UT Dallas does not accept alternative tests for TSI purposes unless a student accumulates collegiate-level course work during the same semester at the same public institution where the student took an alternative test.

Enrollment into Developmental Education

Students who are required to take the TSI/THEA and do not successfully pass all three sections at the level of the previously stated standards will be required to register for Developmental Education courses for all areas in which they did not achieve the stated standard. Their enrollment in Developmental Education on The University of Texas at Dallas campus is required during the first semester that they attend U.T. Dallas. If at any time during the semester an audit reports a student in violation of this policy, that student will be immediately transferred into the appropriate Developmental Education course and dropped from a collegiate level course that is in the same content area. UT Dallas students must take their Developmental Education on the UT Dallas campus.

Placement into Developmental Education Courses

Developmental Education coursework is designed to build upon existing skills in order to facilitate student success in the core curriculum at U.T. Dallas. The Developmental Education courses that are offered are as follows:

- DMTH OV93 Fundamentals of Math and Elementary Algebra
- DRDG OV92 Reading for Success
- DWTG OV91 Writing for Success

Students are required to remain in Developmental Education until they pass the THEA examination in the particular content area in which they had previously failed. If students do not pass the THEA examination after one semester of developmental coursework, they re-enroll in the same course, but their assignments are individualized to avoid redundancy. Students are not permitted to enter college-level courses without evidence that they possess the basic skills necessary to have a reasonable chance of success; thus, students are not permitted to be enrolled in "college-level and developmental work in the same content area simultaneously."

Participation and Attendance in Developmental Education

Students who are required to enroll in Developmental Education because they have failed one or more parts of the THEA examination are subject to the following policies.

Students sign a contract that states that they understand class attendance is mandatory and if they are absent and do not follow the procedure in the contract, they will be withdrawn from The University of Texas at Dallas for the semester with no refund.

Students are advised when they are in jeopardy of being withdrawn; an attempt is also made to contact their advisor. The Director of Learning Resources reports those students who are not in compliance to the Registrar, and the Registrar sends a letter to any student who is withdrawn. A copy of the letter is sent to the Dean of Undergraduate Education. Students who are required to be in Developmental Education for TSI/THEA purposes may not drop a developmental course unless they pass the THEA examination or they are withdrawing from all University courses for the semester. All drop forms are to be signed by the TSI Liaison Officer.

Completing Required Developmental Education

In order to complete successfully any required Developmental Education course, students must comply with the mandatory attendance policy, complete assignments, quizzes, and tests with an overall minimum average of 70% in the course or courses in which they are enrolled. Students are then required to re-take the THEA examination. If they fail any part of the THEA examination, students are required to re-enroll in Developmental Education coursework in all content areas of the THEA they have not passed.

Provisions for Transferring Students

Students transferring to The University of Texas at Dallas from private or out-of-state institutions must meet TSI requirements (be tested or exempted) prior to being allowed to enroll in any collegiate-level work. Students who transfer with 60 or more accumulated semester credit hours or the equivalent to UT Dallas from an American private or out-of-state U.S. institution may use transferred courses which are given common course numbers corresponding to courses approved by UT Dallas to satisfy TSI requirements. Students must have earned a course grade of "C" (2.00 on a 4.00 scale) or higher in each of the three skill areas. If not, the student must be tested for the remaining skill areas and must comply with all other TSI requirements.

Students transferring from other public institutions of higher education in the State of Texas must be TSI exempted/complete* or comply with the UT Dallas policies for Developmental Education set forth in this document.

NOTE: Once any student accumulates 60 hours of collegiate-level coursework, he or she may not enroll in any upper division courses until all three areas of the TSI and UT Dallas' THEA standards have either been exempted or achieved.

The specific application for the Texas Success Initiative as outlined in this statement applies to UT Dallas students only.

TSI: The Texas Success Initiative (formerly TASP) is a state-legislated program designed to improve student success in college. There are two components of the program:

1. an assessment to diagnose students' basic skills in reading, mathematics, and writing; and
2. developmental instruction, to strengthen academic skills that need improvement.

THEA: Texas Higher Education Assessment.

Transfer Credit

Although UT Dallas normally accepts credit from academic courses taken at other regionally accredited institutions in which a grade of C (2.00 on a 4.00 scale) or higher has been earned, specific course and degree requirements must be met in order for these courses to be included in the student's degree plan.

The Office of Enrollment Services evaluates an applicant's completed file to determine which credits earned at another college or university will transfer to UT Dallas. Once admitted the student's record will be articulated for all transfer work and reflect which credits have been accepted by UT Dallas. An undergraduate advisor in the student's major, in consultation with the Associate Dean for Undergraduate Education, will determine how the transfer credits apply to UT Dallas degree requirements. The faculty, acting through the Associate Dean of Undergraduate Education, has the ultimate responsibility for applying transfer credit to their specific major requirements. Students may request an articulation appeal through the Associate Dean of Undergraduate Education in their school.

Students may not transfer to UT Dallas more than six of the final thirty (30) hours required for their degree

To ensure that credit earned elsewhere will be accepted, continuing UT Dallas students who wish to take courses elsewhere must complete an 'Off Campus Transfer Work Approval Form' in their advising office prior to registering for the course(s). Upon completion of approved courses an official transcript must be sent electronically or by mail to:

Office of the Registrar MC 11
The University of Texas at Dallas
800 W. Campbell Road
Richardson, Texas 75080-3021.

Military Training Awarded as Academic Course Credit

The University of Texas at Dallas will consider whether to award lower-division (1000 or 2000 level) academic course credit toward a degree to admitted students when a student has completed and provided all of the following documentation to the Registrar's Office (see address above):

1. an official military record presented to the institution by the student that describes the substance of the training completed by the student and verifies the student's successful completion of that training,
2. a detailed description of the course of instruction,
3. all required texts and authors,
4. any method of evaluation and,
5. the course syllabus or training manuals.

All documentation must be submitted to the Office of the Registrar by Census Day (12th class day in the long semesters) of the first semester admitted. All requests for academic credit will be reviewed by the appropriate discipline using established university transfer credit policies. Notification to the student by the Registrar of approved credit will occur prior to registration for the following semester. All decisions are final.

Transcripts

Students may obtain their official UT Dallas transcript from The Office of the Registrar at no charge if they pick up the transcript in person or if the transcript is sent via regular postal mail. Fees for overnight and international mail, however, will apply. A student must clear all University holds before requesting an official transcript.

No partial or incomplete transcripts will be issued. Transcript requests are not accepted over the telephone.

Transcripts may be ordered for pick-up in person in The Office of the Registrar. Alternatively, transcripts to be mailed may be ordered

- Online using the Online Transcript Request Form, which is available at <https://www.utdallas.edu/student/registrar/> for use under certain conditions
- By fax at (972)883-6335 with the student's signature
- By email sent from the student's UT Dallas email account (or from the email of record, if alumni) to transcripts@utdallas.edu
- By mail with student's signature. The mailing address is:

Office of the Registrar, MC 11
The University of Texas at Dallas
P.O. Box 830688
Richardson, TX 75083-0688

Transcripts requested by email will only be mailed to a student at the address on file with The Office of the Registrar or to another university.

The *Texas Education Code*, provides legal penalties for any alteration of academic records or transcripts with the intent to use such a document fraudulently or permit the fraudulent use of such a document. Falsifying or omitting information may result in withdrawal of any offer of admission, in cancellation of enrollment, and/or in disciplinary action.

Tuition and Financial Aid

As a state-supported institution of higher education, The University of Texas at Dallas is required to comply with all state laws in the assessment and collection of tuition, fees, and deposits. The tuition, fees, and deposits listed herein are subject to change by state law. Pursuant to Chapter 54, *Texas Education Code*, each student who registers is required to pay tuition and fees appropriate to the student's residence classification and according to the number of semester hours for which he or she has registered. It is the student's responsibility to establish, prior to registration, the correct residence classification through the Office of the Registrar. Likewise, any student wishing to request a change of residence status for tuition purposes should do so through the Office of the Registrar. This will require completion of a residence questionnaire and the provision of documents to support the claim of Texas residency. Rules and regulations for determining residency, or for obtaining a waiver to pay resident tuition even if one is a non-resident, are found in Appendix III of this catalog. Final authority of appeal for review of residence decisions rests with the Office of the Registrar.

In accordance with state laws, students are not entitled to enter a class or laboratory until they have registered and all tuition, fees, and deposits have been paid. The University cannot accept personal checks for amounts in excess of the total registration cost.

The University of Texas at Dallas utilizes a consolidated tuition rate, which is capped at 15 semester credit hours for resident students. The consolidated tuition and fee rates cover all academic program costs; including tuition, mandatory fees, and most of the college and course incidental fees. Additional fees that will be charged separately are: field trip fees, supplemental designated tuition fees and distance education fees.

There are other fees, which may be required depending on classes taken and services used. (See "Other User Fees for Courses and Services" beginning on page 50.)

Beginning fall 2007, The University of Texas at Dallas introduced the Guaranteed Tuition Plan. The Guaranteed Tuition Plan is designed to help new students and their families better plan for the cost of a college education, while allowing the University to maintain the quality of its academic programs. Under the terms of the plan, undergraduate students enrolling at UT Dallas for the first time for the fall 2007, spring 2008 and summer 2008 semesters will be charged for tuition and mandatory fees fixed at the fall 2007 rates for all succeeding semesters through the summer of 2011. The cohort of new students who enroll at UT Dallas in the 2008-09 academic year will pay tuition and mandatory fees at a new rate which will also be guaranteed for the following four years. The charges per semester credit hour for tuition and mandatory fees at UT Dallas will depend on the number of hours for which a student enrolls. Other non-mandatory fees including, for example, parking, and housing fees, will be subject to change. More information on the Guaranteed Tuition Plan can be found at <http://www.utdallas.edu/tuition/guarantee/>.

Students who enrolled at UT Dallas prior to fall 2007 will be charged a different rate than the newly enrolled students. That rate remains subject to increase each year. The Guaranteed Tuition program is open to currently enrolled students but, unless a student has more than two full years of instructional work left to complete, the benefit of joining the program would be very limited, if any.

Those who begin their college careers at a community college will also be able to take advantage of UT Dallas' Guaranteed Tuition Plan under a new program called the Comet Connection. Students enrolling at participating two-year schools in the 2007-08 academic year can lock in the same fall 2007 rate for new students for the same four-year period as students who begin at UT Dallas. Students may contact UT Dallas' Comet One-Stop office at (972)883-2270, or go to <http://www.utdallas.edu/connect/> for more information.

Students are not registered or eligible to attend classes until they have paid in full or signed payment arrangements with the Bursar for all tuition and fees. Students who do not pay a minimum of 50% of all tuition and fees by the payment deadline of the applicable semester's class schedule may have their registration canceled. If a student's registration has been canceled for nonpayment, and that student wishes to reinstate registration, a reinstatement fee in addition to any late fees and tuition and fees will be charged. See the online fee schedules at <http://finance.utdallas.edu/bursar/schedule-introduction.html> for fees associated with course reinstatement. No student will be reinstated in a closed course.

Students who have not completed the payment of all tuition and fees by the end of the semester will be subject to one or more of the following actions at the University's option: bar against readmission at this institution; withholding of grades, degree, and official transcript; and all penalties and actions authorized by law.

Students may refer to the Academic Calendar at <http://www.utdallas.edu/student/registrar/calendar/> or the Tuition and Fees Schedule at <http://finance.utdallas.edu/bursar/schedule-introduction.html> for information regarding payment and refund deadlines.

Excessive Undergraduate Hours

Section 54.014, *Texas Education Code*, establishes a maximum number of semester credit hours that an undergraduate Texas resident may attempt while paying tuition at the rate provided for Texas residents. Attempted hours include all hours taken at a Texas state institution of higher education for which a student was registered as of Census Day, including, but not limited to, courses that have been repeated, failed, and courses from which the student withdrew. A student who exceeds the maximum hours may be charged tuition at a rate higher than the rate charged to other resident undergraduate students, but the rate may not exceed the rate charged to nonresident undergraduate students and applies only to the excess hours. Students already holding one baccalaureate degree are exempt when enrolled in a second baccalaureate degree program.

For undergraduate resident students enrolling for the first time in **fall 1999 through summer 2006**, the maximum is **45 hours** above the MINIMUM number of hours required for completion of the degree program in which the student is enrolled, or 120 hours for a student who is not enrolled in a degree program.

For undergraduate resident students enrolling for the first time in **fall 2006**, the maximum is **30 hours** above the MINIMUM number of hours required for completion of the degree program in which the student is enrolled, or 120 hours for a student who is not enrolled in a degree program.

Texas Education Code, §54.068, provides that institutions may charge a higher rate of tuition to students with repeated or excess hours. Undergraduate students attempting a course, or a substantively identical course, more than two times will be charged at a rate higher than their current tuition rate.

Freshman Exemption

The highest-ranking graduate of any accredited high school in Texas is entitled to a tuition exemption. The exemption pays tuition for a period of two long semesters of academic work. Eligible students must present the Texas Education Agency eligibility certificate or a letter from the student's high school principal or superintendent, to the Office of the Registrar in order to claim the exemption.

General Property Deposit

Every student must make a general property deposit of \$10.00. This deposit is subject to charges for property loss, damage or breakage, or violation of rules in any University library or laboratory; for failure to return keys furnished by the University; or for damage to, or loss of, any other University property. Students having charges in excess of the deposit must pay the excess immediately upon notice. Pending payment, the student will be subject to a bar against readmission; withholding of grades, degree, and official transcript; and all penalties and actions authorized by law.

This deposit, less any outstanding balances on the student's account, will be returned upon written request at the end of the student's career at The University of Texas at Dallas. A general property deposit that remains without call for refund for a period of four years from the date of last attendance at the University shall be forfeited, and the deposit shall become part of the Student Property Deposit Scholarship Fund.

Installment Payments

Students may elect to pay tuition and fees for the full term fall, spring, and twelve week summer semesters under the installment payment plan (Section 54.007, *Texas Education Code*). A \$25.00 fee per semester will be assessed each student who elects to pay by installments. Additionally, a late payment fee of \$30.00 for delinquent payment will be assessed each time an installment is not paid by the date it is due. In the event of non-payment, the total amount due shall accrue interest from the third payment deadline at the rate of ten percent (10%) per year until the note is paid in full.

Nonpayment of Debt

A student who fails to provide full payment of loans, tuition, and fees, including late fees assessed, to the University when the payments are due is subject to one or more of the following actions at the University's option:

1. Classes may be cancelled;
2. Bar against registration and/or readmission to the institution;
3. Withholding of grades, diploma, and official transcript; and
4. All penalties and collection actions authorized by law.

Partial Tuition and Fee Exemptions

As a state-sponsored institution of higher education in Texas, The University of Texas at Dallas is authorized to award partial tuition and/or fee exemptions to students who qualify. Exemptions are available to certain students who have been in foster or other residential care in the State of Texas, certain students who received Aid for Dependent Children benefits during their last year of high school, certain students who are suffering economic hardship, Texas residents who graduated from a public high school within 36 months of original enrollment and completed all years of high school in Texas, certain residents of Texas who served in the armed forces of the United States, Texas residents classified by the U.S. Department of Defense as prisoners of war on or after January 1, 1999, children of POWs/MIAs, students from other nations of the western hemisphere, blind or deaf students, military personnel and dependents, children of disabled/deceased firefighters and peace officers, firefighters enrolled in Fire Science classes, children of Texas veterans, children of professional nursing faculty, preceptors for professional nursing education programs, surviving spouses and minor children of certain police, security or emergency personnel killed in the line of duty, and certified educational aides. Senior citizens who are age 65 or older as of Census Day may be exempted from tuition for up to six semester credit hours each semester or summer term if space is available. Individuals who feel they may qualify under this section are requested to contact the Financial Aid Office at (972) 883-2941.

Rebate of Tuition for Timely Graduation

If you were a freshman who entered a Texas public college or university for the first time in the fall of 1997 or later, you may qualify for a \$1,000 tuition rebate after you graduate. You must have been a resident of Texas, taken all your coursework at a Texas public institution of higher education, and been entitled to pay in-state tuition at all times while you were pursuing your degree. The law provides for the rebate if you graduate within three or fewer attempted hours of the number of hours required for your degree. For example, if your degree requires that you have 120 hours to graduate and you ultimately graduate with 123 attempted hours or fewer, you can qualify for the rebate. Attempted hours include every course for which you have registered, as of Census Day, for every semester, to include: developmental courses, courses you repeat, courses from which you withdraw, and credit you may receive by examination. Students must apply for the rebate in the Office of the Registrar at the beginning of the semester in which they apply for graduation. By law, refunds for students with outstanding student loans will be sent directly to the lender.

Refund of Tuition and Fees

Upon notification from the Office of the Registrar of official withdrawal, the Bursar Office shall refund tuition and fees (unless otherwise noted) in accordance with the following schedule:

For the Long Term (fall and spring semesters) and twelve-week summer session

- Prior to the first class day of a given semester, 100 percent
- During the first five class days, 80 percent of the applicable portion of the tuition and applicable fees
- During the second five class days, 70 percent
- During the third five class days, 50 percent
- During the fourth five class days, 25 percent
- After the fourth five class days, nothing

For the 6- and 8-Week summer sessions

- Prior to the first class day of a given term, 100 percent
 - During the first, second, and third class day, 80 percent
 - During the fourth, fifth, and sixth class day, 50 percent
 - Seventh class day and thereafter, nothing
-

Separate withdrawal refund schedules may be established for other fees and charges. Refer to the "Other User Fees for Courses and Services" section, page 50, for refund information.

Cash refunds will not be made to students who request refunds; instead, refund checks will be available at the Bursar Office three business days after the refund is requested unless the student has opted for direct deposit. Direct deposit refunds are normally available 5 to 6 business days from the date they were requested. Refunds which are not picked up will be mailed to the local address on file approximately four weeks after the day the refund was requested.

A student who registers before receiving grades from the previous semester, and who is required to withdraw because of failure in the work of the previous semester, will have all fees for the current semester refunded.

No refunds will be granted unless application is made within one year after official withdrawal.

All policies regarding the payment or refunding of tuition, fees, and charges are approved by the Board of Regents of The University of Texas System and are in compliance with the *Texas Education Code*, Section 54.006 (<http://tlo2.tlc.state.tx.us/statutes/ed.toc.htm>) of the Texas Statutes. If a person desires clarification of any matter relating to payment or refund of such charges, he or she should contact the office or administrative unit from which the charge or refund originated.

Title IV Programs – Refunding for Students

As an institution participating in programs under *Title IV* of the *Higher Education Act of 1965* as amended ("Act"), The University of Texas at Dallas is required to refund unearned tuition, fees, room and board, and other charges to certain students attending the institution for the first time who have received a grant, a loan, or work assistance under Title IV of the Act or whose parents have received a loan on their behalf under 20 U.S.C. Section 1087-2. The refund is required if the student does not register for, withdraws from, or otherwise fails to complete the period of enrollment for which the financial assistance was intended. No refund is required if the student withdraws after a point in time that is sixty percent of the period of enrollment for which the charges were assessed. A student who withdraws prior to that time is entitled to a refund of tuition, fees, room and board, and other charges that is the larger of the amount provided for in Section 54.006, *Texas Education Code*, or a pro rata refund calculated pursuant to Section 484B of the Act, reduced by the amount of any unpaid charges and a reasonable administrative fee not to exceed the lesser of five percent of the tuition, fees, room and board, and other charges that were assessed for the enrollment period, or one hundred dollars. If the student charges were paid by Title IV funds, a portion or all of the refund will be returned to these programs.

Tuition Tables

Tuition and fees are subject to change by legislative action. Changes in tuition or fees will be effective upon date of enactment and will be reflected in fees and tuition charged. Specific tuition and fees for each term can be found at <http://finance.utdallas.edu/bursar/schedule-introduction.html>. Please note that the Texas Legislature does not set the specific amount for any particular student fee. The student fees assessed above are authorized by the state statute; however, the specific fee amounts and the determination to increase fees are made by the University administration and The University of Texas System Board of Regents.

Students taking courses in the School of Behavioral and Brain Sciences may be required to purchase professional liability insurance if they are in certain clinical experiences.

Other User Fees for Courses and Services

Students should note that, with the exception of the Application and Utility fee, all students will not pay all of the fees listed below. The tuition, fees, and deposits listed herein are subject to change by state law. Specific tuition and fees for each item can be found at <http://finance.utdallas.edu/bursar/schedule-introduction.html>

Application Fee: A nonrefundable application fee of \$50.00, is required of all students applying for admission to The University of Texas at Dallas during the regular application period. If you submit your application after the application deadline but prior to the documentation deadline, the application fee is \$125.00 in order to process your application for a decision in time to register for classes. An additional \$50.00 international document evaluation fee is required for those who have

educational documents from countries other than the United States. Please refer to the Enrollment Services website for application deadlines.

Audit Fee: Students at The University of Texas at Dallas may, with the approval of the instructor and of the Office of the Registrar, audit courses. Auditing grants only the privilege of hearing and observing and does not grant credit. When approval has been granted, the applicant pays a fee of \$100.00 per course. A student may withdraw from an audit course, but the fee will not be refunded. Persons 65 or over are permitted to audit without paying a fee. They must, however, qualify otherwise (see "Auditing Courses," page 24), complete the audit form, and have the consent of the instructor. Audit registration is permitted only during the late registration period of each semester or term.

Change of Major Fee: There is a \$50.00 fee for students changing majors more than two times in an academic year. (See "Change of Major," page 35).

Comet Camp Fee: A \$100.00 per student fee is required to defray the costs of materials, food, and field trip for freshmen who attend Comet Camp.

Curricular Practical Training Fee: A \$100.00 per semester fee to assist in funding the administrative and clerical expenses required to review records and process the forms required by the Immigration and Naturalization Service to certify international students for placement in a practical training assignment.

Diploma Replacement or Duplicate Fee: A \$10.00 fee is required to defray costs of preparing replacement or duplicate diplomas. An additional \$25.00 will be charged to mail a diploma to a foreign address.

Distance Learning Fee: A fee per semester credit hour (SCH) to enroll in distance education courses offered over the Internet. Resident and non-resident students taking courses offered by the School of Management are charged \$80.00 per semester credit. Students enrolled in courses offered through the U.T. Telecampus by the School of Engineering and Computer Science are assessed \$50.00 per semester credit hour. Students enrolled in Teacher Education Telecampus courses will be charged \$25.00 per semester credit hour.

Field Trip Fee: This fee is assessed to cover the costs of transportation, food, and/or lodging associated with a field trip. The amount of the fee varies depending on the destination and duration of the field trip. Every effort will be made to advise students of the field trip costs associated with a particular course at the time of registration, and the appropriate fee will be assessed at that time. Refund provisions do not apply to this fee.

Health Insurance Fee: A variable fee to pay the premium for the approved UT Dallas student health insurance plan is required for international students holding nonimmigrant visas. (See page 62, "Health Services".)

In Absentia Fee: A student who registers in absentia shall pay a nonrefundable/nontransferable registration fee of \$100.00 (see definition of *in absentia*, page 33).

Installment Payment Plan Fee: A \$25.00 fee to cover the costs of providing a payment option for students in full term fall or spring semester courses. The plan is also available for student's enrolled in the 12-week summer semester.

Installment Plan Late Fee: A late payment fee of \$30.00 for delinquent payment will be assessed if the second or third tuition installment is not paid by the date it is due. In the event of non-payment, the total amount due shall accrue interest from the third payment deadline at the rate of ten percent (10%) per year until the note is paid in full.

Institutional Loan Delinquency Fee: A late charge of \$30.00 per month (\$90.00 maximum per note) will be assessed to students who do not repay their loans in accordance with the terms of the note.

International Student Special Services Fee: A \$100.00 per semester fee for on-going review and certification of students with I-94 status in accord with federal regulations.

Late Course Add Fee: A \$100.00 per course fee is assessed when a registered student adds a course after Census Day.

Late Graduation Fee: A \$100.00 non-refundable, non-transferable fee is assessed when an approved application for graduation is received after the deadline.

Late Registration/Late Payment Fee: A nonrefundable charge of \$100.00 with additional increments of \$50.00 based on the number of days past the regular registration/payment deadline is required to defray costs associated with extending registration times.

Library Fines and Charges: Fines and fees for overdue library items are as follows:

Main Stacks	\$0.50/day	Maximum \$30.00
Recalled Items	\$1.00/day	Maximum \$50.00
Reserves/Media Reserves	\$0.10/day	Maximum \$50.00
Media	\$1.00/day	Maximum \$7.00
Information Commons	\$0.10/minute	Maximum \$50.00
Laptop	\$0.10/minute	Maximum \$50.00
Lost Items	* replacement cost of the item, a \$25.00 processing fee, and any overdue fines	

Copies of the fine schedule can be obtained at the McDermott Library Circulation/Reserve Desk. Individuals who fail to return overdue library materials may be subject to criminal action for theft.

Orientation Fees: An optional fee is assessed for orientations conducted by Student Life.

Freshman Orientation held before the start of the Fall semester is \$100.00. Transfer students or freshmen beginning in the spring or summer semester may attend an orientation for \$25.00.

International students must attend an orientation conducted by Student Life and will be assessed a one-time fee of \$50.00.

Parking Fees: A parking decal is required to park any motorized vehicle on campus. Any vehicle parked on campus that does not display a current parking decal will be subject to a parking citation. Decal fees may be found on the terms other fees schedule at <http://finance.utdallas.edu/bursar/schedule-introduction.html>. Students may purchase the following decals at the Bursar Office:

Green: Allows students to park in campus green spaces.

Gold: Allows students to park in campus gold or green spaces.

Evening Orange: Allows students to park in orange marked spaces after 5pm or gold and green spaces anytime.

Waterview parking – A parking decal is required for all residents of the Waterview apartments. The following options are available:

Full year Waterview Only: Allows students to park in Waterview parking ONLY.

Waterview Green: Allows students to park in Waterview parking or in green campus spaces.

Waterview Gold: students to park in Waterview parking or in campus gold or green spaces.

Note: Only one decal may be sold per student residing in the Waterview Apartments.

Parking decals are refundable on a prorated basis with the exception of the Waterview Only decal.

The Dallas Area Rapid Transit System (DART) provides bus service to the campus from the Richardson transfer terminal. Contact DART for schedule information. Students are eligible for a free transit pass from DART which is available through the Info Depot, located on the second floor of the Student Union.

Recreational Sports Course Fees: A \$25.00 per course fee will be assessed for each physical instruction course taken.

Recreational Sports Locker Rental Fee: An optional locker rental fee of \$5.00 - \$15.00 per semester.

Recreational Sports Towel Service Fee: An optional towel service of \$10.00 per semester.

Reinstatement Fee (Prior to Census Day): After the payment deadline for each semester, all registration for which tuition and fee payments have not been received may be canceled. If a student requests that the courses be reinstated before Census Day, a \$25.00 reinstatement fee will be charged in addition to the graduated late registration fee. No student will be reinstated into a class that has been closed.

Reinstatement Fee (After Census Day): A \$300.00 fee will be charged, in addition to tuition and required fees, to enroll a student after Census Day.

Returned Check Fee: Students will be assessed a \$25.00 fee for each returned check unless their bank provides written notification it was at fault. Students who write bad checks to the University for tuition and fees will have their registration canceled unless full payment is made by the census day listed in the Academic Calendar.

Student Documents/Records Fee: Students may obtain a copy of any document in their file by making a written request to the Office of the Registrar and paying a charge of \$5.00 per document copy at the Bursar's Office; processing of these requests for copies will generally take four to five working days. Students should be aware, however, that transcripts of other schools received by the University are used as working documents, frequently carry written marks and notations, and may not be considered viable transcripts by other agencies.

Student Identification Card Replacement Fee: A \$25.00 fee is required to defray the costs of reissuing a student ID card.

Student Life Co-Curricular Activities Transcript Fee: A \$10.00 per registrant fee to cover partially the costs of producing transcripts listing students' activities.

Student Teaching Supervisory Fee: A \$250.00 per field experience fee is required to defray costs of providing University supervisors and travel for University supervisors of student teachers.

Supplemental Designated Tuition: A \$40.00 per semester credit hour fee will be assessed for students enrolled in any School of Management, Erik Jonsson School of Engineering and Computer Science, School of Arts and Humanities ATEC courses, School of Behavioral and Brain Sciences graduate Speech Language or Audiology (COMD or AUD) courses, and School of Social Sciences graduate Public Affairs (PA) courses. These fees are assessed to defray the higher costs associated with instruction in these schools.

Universities Center at Dallas Fee: A \$15.00 per semester credit hour fee is required to defray the costs of courses taken at the Universities Center at Dallas.

Financial Aid

The Student Financial Aid Office is available to assist students in obtaining funds to attend the University. Aid is available in the form of loans, grants, and part-time employment or any combination of those programs. Limited numbers of scholarships are available. The total amount of aid the student receives depends on the level of financial need, submission of appropriate financial information and applications, academic records, and the availability of funds.

Students are encouraged to contact the Financial Aid Office to obtain appropriate application materials and to determine eligibility for the various forms of aid available. The Financial Aid Office is located in the lower level of the McDermott Library, (972) 883-2941. Students may also apply for financial aid, check the status of their application, or contact the Financial Aid Office through our website at <http://financial-aid.utdallas.edu/>.

Information concerning student financial aid is accurate at the time of printing. Changes in regulations or policy on a federal, state, university, private lending, or donor level could affect the types of programs and amounts available, and/or program requirements.

Eligibility

Most of the aid listed in this catalog is awarded on the basis of financial need. Students are encouraged to determine the amount of resources that they can provide toward their education and to compare it with the average cost of attending the University. Student budgets are reviewed annually in accordance with federal and state guidelines. Federal guidelines outline what can be included in student budgets. The costs of tuition and fees, books and supplies, an average room and board cost, in-city transportation, and a limited amount for other personal expenses are the basic components of student budgets. When documentation is presented, the cost of childcare and costs of the student's out-of-pocket expenses related to the student's medical disability can also be included.

Financial need is the difference between the costs of attending the University and the amount a student and/or family can reasonably provide. The amount of the expected family contribution is based on federal guidelines reflecting total family income, assets, and number of dependent children currently attending post-secondary educational institutions. Family contribution is expected unless it is clearly established that the student is independent of any family support.

In determining whether a student is considered independent or self-supporting, the Financial Aid Office adheres to the standards set by the Department of Education to establish applicant's dependency status. Students 24 years or older are considered financially independent. Students under the age of 24 are considered financially dependent unless they are orphans, wards of the court, veterans, graduate students, married, or unmarried but with legal dependents. Both self-supporting and dependent students must submit a Free Application for Federal Student Aid (FAFSA) form in order that a determination can be made of the expected resources available to the applicants.

Renewal of Financial Aid

For a student to be considered for a renewal of financial aid, a new Free Application for Federal Student Aid (FAFSA) and supporting documents must be submitted for each academic year. The FAFSA for the new academic year is available on January 1st of the calendar year for that particular upcoming fall. The awarding of renewal aid is subject to the same considerations used in awarding all previous financial assistance.

Required Course Load

The course load requirement for students receiving each type of aid is at least one-half the normal course load. Aid recipients should not reduce their course loads below the qualifying minimum hours as it may affect receiving financial assistance at a later date. Undergraduate students must maintain no fewer than 6 credit hours for each term of enrollment. There is no distinction between a regular, long semester and a short summer term when determining the required course load. Students should contact the Financial Aid Office before they reduce their course load to determine what effect the reduced course load will have on current and future financial aid eligibility.

Revocation of Financial Aid

Financial aid packages are reviewed by the Financial Aid Office and canceled if the student fails to maintain a satisfactory record of academic progress, or to enroll for and maintain the minimum number of course load hours. Aid packages may also be revoked because of changes in financial status. Partial or full repayment of awards may be required. In some instances, immediate repayment may be required.

Any change in a recipient's financial situation, such as additional scholarships, loans, or change in employment status, must be reported to the Financial Aid Office, because compliance with federal regulations may require a revision of awards.

Satisfactory Academic Progress Policy for Federal Financial Aid

The University of Texas at Dallas has a "Satisfactory Academic Progress" policy for a student receiving federal student financial assistance.

Generally, the student is expected to remain in good standing by the satisfactory completion of a minimum number of credit hours, based on a percentage of the credit hours attempted and completed for each term of enrollment. This completion rate may vary depending on the student's academic level and credit hour load. In addition, undergraduate students must maintain

a GPA of 2.00 on a 4.00 scale or above on all course work completed at the University. For more detailed information the student should contact the Financial Aid office. This information is also available online at the Financial Aid Office web site at <http://financial-aid.utdallas.edu/>. A copy of the Satisfactory Academic Progress policy is made available to all recipients of financial aid with their award letter.

Selective Service

Male students between the ages of 18 and 26 must be registered with Selective Service to qualify for Federal student loans or grant programs. This includes Federal Pell Grants, Federal College Work Study, Federal Stafford Student/Plus Loans, and Federal Perkins Loans. The Selective Service requirement also applies to Texas student loans and grant programs. Students may register with Selective Service or verify their registration at <http://www.sss.gov/>.

Types of Financial Aid

The following is a summary of the types of assistance that are available to students at The University of Texas at Dallas. *The student should be aware that many of the programs are subject to change without notice by the state or federal government.* Information on all programs may be obtained from the Financial Aid Office unless otherwise noted.

Academic Competitiveness Grant (ACG) and National SMART Grant

Students must meet the following requirements for both programs:

- Pell Grant eligible;
- U.S. Citizen;
- Full-time student.

Academic Competitiveness Grant Information

Up to \$750 will be awarded to eligible first-year students and up to \$1,300 for second-year students.

Students must have completed a rigorous secondary school program of study as established by a state or local educational agency and recognized by the U.S. Secretary of Education.

Students must be enrolled or accepted in a two- or four-year degree-granting institution of higher education.

First-year students must not have been previously enrolled in a program of undergraduate education and must have graduated from high school after January 1, 2006.

Second-year students must have graduated from high school after January 1, 2005, and have at least a cumulative 3.00 grade point average (GPA) during their first year of college.

National SMART Grant Information

Up to \$4,000 will be awarded to eligible students.

Students must be enrolled in a four-year degree-seeking institution of higher education.

Students will be eligible if they are pursuing a major in mathematics, science (including physical, life, and computer sciences), technology, engineering, or a critical foreign language. A minimum GPA 3.00 is also required.

A listing of eligible SMART Grant majors can be found at <http://financial-aid.utdallas.edu/>.

B-On-Time Loan

The purpose of the Texas B-On-Time Loan program is to provide eligible Texas students no-interest loans to attend colleges and universities in Texas. If the student meets specified goals, the entire loan amount can be forgiven upon graduation. Students need to complete a FAFSA and be eligible to receive federal financial aid. Students must be

enrolled full time in an undergraduate degree and have graduated in the 2002-2003 academic year or later from the recommended high school curriculum. Students who have earned an associates' degree from an eligible institution no earlier than May 1, 2005 can also be considered. Due to limited funding, previous recipients will receive first priority, followed by students who qualify for, but are not receiving a TEXAS Grant due to a shortage of funds for that program.

Education Assistance Grant

This program was established to provide financial assistance to students by an act of the Texas Legislature. The program is funded through appropriation of a portion of the designated tuition charge for resident and non-resident students. Students completing a FAFSA will automatically be considered for this grant. Awards are based on availability of funds and the student's financial need.

Federal College Work Study Program

College work study employment is available to students on the basis of demonstrated financial need. The acceptance of employment reduces the amount of loan assistance a student will be permitted to accept in order to meet financial need to cover educational expenses.

Compensation depends on the type of job, qualifications, and classification. The number of hours and work schedule will vary depending on the position. For information on job availability, students need to contact the Career Center at (972)883-2943.

Federal Pell Grant

Students wishing to apply for this federal program must complete a "Free Application for Federal Student Aid" (FAFSA). Applications are available at the Student Financial Aid Office, high schools, and local libraries, or through the Internet at <http://www.fafsa.ed.gov/>, selecting the "Applying for Financial Aid" option. Applications are processed by the U.S. Department of Education. The amount of the grant for undergraduate students is based on the family contribution, the amount of funds available for the program, number of hours enrolled per semester, and the cost of education, not to exceed one-half of educational cost. This grant is available to undergraduate students only who are pursuing their first baccalaureate degree.

Federal Perkins Loan Program

This loan program provides a combination of federal and institutional funds to students who qualify on the basis of financial need. High priority is given to those students who demonstrate exceptional need. Due to the limited amount of funding through the Federal Perkins Loan program, priority is also given to students who are not able to borrow through other federal educational loan programs as a result of reaching the aggregate borrowing amount through those federal educational loan programs. Students completing a FAFSA will automatically be considered for this program.

An undergraduate student may borrow up to a maximum amount of \$4,000 per academic year for a total of \$20,000 which includes all undergraduate Federal Perkins loans.

A Federal Perkins loan bears a modest interest rate. Borrowers are required to begin repayment of principal and interest nine months after they cease to be at least half-time students. Repayment may extend over a ten-year period; however, there is a minimum rate of repayment.

Federal Stafford Student Loan Program

Funds from this program are made available to the student from lending institutions such as banks, savings and loan associations, and credit unions. Students must qualify for a Federal Stafford Subsidized Student Loan on the basis of need. The U.S. Government will pay the interest on a Federal Stafford Subsidized loan as long as the student remains enrolled in school at least half-time. The Federal Stafford Unsubsidized Loan Program is available for students who do not demonstrate financial need. Students are responsible for payment of interest while they are enrolled in school. Students interested in this program should contact the Financial Aid Office for further information. Students completing a FAFSA will automatically be considered for this program.

The loans are made at a modest interest rate and there exists a maximum amount that can be borrowed for a given academic year. See the Financial Aid Office concerning the maximum loan amount. The borrower will be required to begin repayment of principal and interest 6 months after graduation or after he or she ceases to be at least a half-time student. Repayment may extend over ten years, but the program requires a minimum monthly payment.

Federal Supplemental Educational Opportunity Grant (FSEOG)

Through this federally funded program a limited number of grants are available to undergraduate students with exceptional financial need. Students completing a FAFSA will automatically be considered for this grant. Awards are based on availability of funds and the student's financial need.

General/Endowment Scholarship Programs

Information about a variety of scholarships awarded on the basis of academic merit and achievement is available from the Office of Financial Aid. The University of Texas at Dallas also offers a number of endowed scholarships that are administered by a school or program. Students are encouraged to contact their school dean or program office to obtain information about eligibility criteria and scholarships awarded in the student's area of study.

In addition to any specific criteria governing awards of competitive scholarships (e.g., major field of study) the committee responsible for such awards will give primary consideration to the applicant's scores on standardized tests and scholastic records, both evaluating the type and nature of courses taken and the grades achieved in specific courses. The committee may also consider and give positive weight to such factors as the following in designating recipients:

- Achievements in work experiences
- Community service
- Extracurricular activities; leadership
- Surmounting obstacles to the further pursuit of higher education
- Socioeconomic background
- Educational level
- Status as a first generation college student.

Scholarships typically are awarded in the spring semester for disbursement during the following academic year. A few scholarships are awarded during the fall semester. Announcements about available scholarships, application procedures and deadlines are available in the Office of Financial Aid (972-883-2941). Also, notices are distributed on University bulletin boards, placed in the student newspaper (*The Mercury*), and on the Financial Aid Office web site at <http://financial-aid.utdallas.edu/> at the beginning of the fall and spring semesters.

Hazlewood Veteran Tuition Exemption

Certain veterans who have served on active military duty, who were residents of Texas at the time of entry into the service, who have resided in Texas for the last 12 months prior to the date of registration, and whose entitlement to educational benefits under federal legislation has been exhausted, are eligible for exemption from the payment of tuition, general fees and laboratory fees. However, an individual who has "exhausted his/her federal education benefit" as a result of default on a federal or state loan may NOT receive the Hazlewood benefit. These exemptions also apply to children of members of the Armed Forces of the United States killed in action, missing in action, who die or died while in service, or whose death is documented to be directly caused by illness or injury connected with service in the armed forces; and to children of members of the Texas National Guard killed since January 1, 1946, while on active duty. Effective fall 1995, a maximum of 150 credit hours (including remedial courses) of work was established by the state for which a person may receive benefit under the Act. This accrual will begin with the fall 1995 semester. Applications are available in the Financial Aid Office.

Hinson-Hazlewood College Student Loan Program

Texas residents who meet eligibility requirements may borrow funds to meet a portion of their school expenses. The loan carries a modest interest rate. Repayment begins 6 months after graduation or withdrawal from the University.

Other On-Campus Employment

Various programs and schools of the University employ students in positions that are not work study positions and are not based on need. In accordance with appropriate guidelines, pay scales depend on the type of job, qualifications, and classification. Normally, students will be employed for a maximum of 19 ½ hours per week. Students interested in these positions should contact the Career Center at (972)883-2943.

Property Deposit Scholarship

This is an institutionally sponsored scholarship program with limited funding. The amount of the award varies. Eligibility is based on need. Students completing a FAFSA will automatically be considered for this grant.

TEACH Grant Program

The College Cost Reduction and Access Act of 2007 created the Teacher Education Assistance for College and Higher Education (TEACH) Grant Program that provides up to \$4,000 per year (\$16,000 total for four-year programs) in grants to students who intend to teach full-time in high-need subject areas for at least four years at schools that serve students from low-income families.

Eligible students must be enrolled in coursework that is necessary to begin a career in teaching or plan to complete such coursework. Coursework that will prepare a student to teach in a high-need subject area (e.g., math courses for a student who intends to be a math teacher) is acceptable.

Eligible students must meet the following academic achievement requirements of either scoring above the 75th percentile on one of the following college admissions test(s) – SAT, ACT, or graduate from High School with a cumulative GPA of at least 3.25 on a 4.00 scale AND maintain a cumulative GPA of at least 3.25 throughout their academic program for which they receive a TEACH grant.

Eligible students must complete TEACH Grant counseling and sign a TEACH Grant Agreement to Serve and Promise to Pay each year with the U.S. Department of Education. The TEACH Grant service agreement specifies the conditions under which the grant will be awarded, the teaching service requirements, and includes an acknowledgement by the student that they understand that if they do not meet the teaching service requirements they must repay the grants as a Federal Direct Unsubsidized Loan, with interest accrued from the date the grant funds were first disbursed.

Teaching Obligation

To avoid repaying the TEACH Grant as a loan with interest, you must be a highly-qualified, full-time teacher in a high-need subject area for at least four years within eight years of finishing the program at a school serving low-income students.

Texas Public Educational Grant

An act of the 64th Texas Legislature established a grant program to provide financial assistance to students. The program is funded through appropriation of a portion of the tuition charges for resident and non-resident students. Students completing a FAFSA will automatically be considered for this grant. Awards are based on availability of funds and the student's financial need.

Toward Excellence, Access and Success Grant (TEXAS Grant)

This program is to provide a grant of money to enable academically prepared eligible students to attend public and private nonprofit institutions of higher education in Texas. An undergraduate student is eligible who:

- is a Texas resident;
 - graduated from a public or accredited private high school in Texas no earlier than fall 1998. There is a time limit of 16 months after graduating from high school to be eligible;
 - completed the recommended or advanced high school curriculum or its equivalent;
 - had financial need, with an EFC of 4,000 or less for the academic year;
 - has applied for any available financial aid or assistance;
-

- enrolls at least $\frac{3}{4}$ time in an undergraduate degree; and
- has not been convicted of a felony or a crime involving a controlled substance.

The amount of the grant is based on the average tuition and fees charged at 4-year public institutions. Students who continue in college and who meet program academic standards can receive awards for up to 150 semester credit hours or for six years, whichever occurs first. Requirements for continued funding are completion of at least 75 percent of the hours taken in the prior semester, plus an overall grade point average in college of at least 2.50 on a 4.00 scale. Awards will be made through the Financial Aid Office. Students completing a FAFSA will automatically be considered for this grant. Students must apply early as there is limited funding available.

Short-Term Emergency Loans

Students needing emergency help with educational expenses may borrow from the short-term loan fund. Loans must be repaid within the semester during which they are borrowed or a fee will be charged of \$30.00/month or a maximum of \$90.00/semester. Contributions to these funds have been made by Mrs. Lloyd V. Berkner, Mr. and Mrs. Louis Castelli, the Kiwanis Club of Richardson, Rotary Club of Richardson, the Richardson Savings and Loan Association, the First Texas Savings and Loan Association of Dallas, Richardson Altrusa Club, Chaparral Steel Company, and funds set aside out of student tuition.

Students with questions about financial aid can contact a Financial Aid Counselor via the Internet at <http://financial-aid.utdallas.edu/>.

Resources for Study and Campus Life

Callier Center for Communication Disorders

The Callier Center is an internationally recognized institution that offers services to people who have any type of communication disorder. Acknowledged for meeting the assessment, treatment, education, and social service needs of children and adults with communication disorders, the Center has programs in preschool education, parent education, and child development. Its clinical services include pediatric and adult services in audiology, speech pathology, and language development; its research activities include psychoacoustics, auditory neurophysiology, speech science, and audiology. Graduate classes are conducted at the Callier Center Dallas facility, adjacent to The UT Southwestern Medical Center and Callier Center-Richardson on the main UT Dallas campus.

Career Center

Students are encouraged to contact the Career Center early in their schooling. By doing so they can fully access all the services needed for the development of their long-range career plans. The staff provides students with career counseling and may evaluate and test in the areas of skills analysis, interest identification, and values clarification. Computer-assisted career information searches and a Career Resource Library contain occupational and employer information.

The Career Center provides pre-employment preparation assistance through mock interviews and a variety of workshops on such topics as résumé writing, business letter writing, identifying marketable skills, interviewing skills, and conducting an effective job search. A résumé editor is available to critique student résumés and professional documents. Representatives of business, government, industry, education, and social agencies recruit UT Dallas students at Career Expos and through on-campus interviews. The Career Center also manages the Internship/Cooperative Education program for all majors, except for students in EE/CS majors.

Part-time jobs, both on- and off-campus, internships, full-time jobs, and on-campus interview schedules are posted through UT Dallas *CareerWorks*. All students register for UT Dallas *CareerWorks* by accessing the Career Center website. Students upload a résumé into the system in order to apply for qualified positions or to make it available for employer referrals. Employers may have access to candidate résumés via various web résumé books set up in the UT Dallas *CareerWorks* system.

For more information, contact the Career Center in the McDermott Library, RM 1.312 (Phone: (972)883-2943), Web: <http://www.utdallas.edu/career/>, Email: careercenter@utdallas.edu.

Carolyn Lipshy Galerstein Women's Center

The Women's Center works with organizations in the University and the Dallas communities to provide resources and services that enhance the experience of all campus women by contributing to an academic atmosphere in which positive role models are highly visible and gender bias and inequities can be addressed. The Center acts as a central coordinating agency for campus and community groups, and offers opportunities and events that promote a broader understanding of the diverse experiences and ideas of women. The Center offers dynamic programs, and provides resources and services that will help the women of our community to grow and develop, personally and professionally.

How can I use the Women's Center?

- Meet new people, network with other professionals, socialize...talk to someone who's willing to listen;
 - Take a break, study, use the computer...read or rent a book, video, or magazine from our library;
 - Learn about resources on campus and in the community that address your specific needs;
 - Use the Center as a meeting place for your organization;
 - Volunteer at the Women's Center, or find out about volunteer opportunities in the community;
 - Stay current on upcoming events and important issues;
 - Find out about scholarships offered in the community and nationally.
-

Comet Card

The Comet Card is the official University identification card for all students, faculty, and staff. The Comet Card allows students to use campus facilities and services and offers a debit feature where money may be stored to make on-campus purchases and payments. The card can also be linked to a Wells Fargo banking account and used as a pin-based debit card. Cards are issued through the Info Depot (SU 2.204). For additional information call (972) 883-4123 or check our website at <http://www.utdallas.edu/cometcard/>.

Computing Services

Information Resources provides computing facilities for student, faculty, and staff use in instruction and research.

General Access computer labs are located on the first and third floor of the McDermott Library and the ground floor of the Jonsson Building. The Labs provide a modern, networked computing environment with Windows-based and Macintosh computers, scanners and more.

Dedicated systems are also available to support such functions as campus information services, programming, research-related activities, and computationally intensive applications.

A sophisticated campus-wide network permits offices and laboratories direct access to extensive computing resources both on and off campus. The University maintains high bandwidth connections to the commodity internet as well as appropriate research and education networks such as Internet 2. Primary remote services access is through the Galaxy portal (<http://galaxy.utdallas.edu/>). Additional remote access to the campus network is provided through VPN (Virtual Private Networking) services.

The University provides wireless LAN access to the campus community areas across most of the institution. All holders of a UT Dallas NetID may utilize the campus network using devices with the appropriate wireless LAN 802.11b/a/g network interface. Guest wireless access is also provided on request (<http://www.utdallas.edu/ir/>).

Many of the schools, programs, and research centers operate their own computing facilities that are also available to students as appropriate. Details of these facilities can be found in the individual school/program sections of this catalog.

The University Help Desk is located in the Jonsson building and offers walk-in, telephone, email and web chat support for a wide range of technology problems. Contact info: 2911 (phone), assist@utdallas.edu (email).

The latest information regarding computing facilities can be found at the campus web site at <http://www.utdallas.edu/ir/>.

Disability Services

Disability Services provides reasonable accommodations for students with documented disabilities. Students are encouraged to register with Disability Services as soon as they are admitted to the University.

The Office of Disability Services is located in the Student Union (SU 1.610), (972) 883-2098. Additional information is available at the Disability Services website located at <http://www.utdallas.edu/disability/>.

Distance Education

The University of Texas at Dallas utilizes e-learning technologies to provide students the opportunity to engage in coursework from remote locations and without the time constraints of the traditional face-to-face classes. Distance Education opportunities at the University include courses and entire programs taught online via the internet, as well as courses conducted through videoconferencing in real time. Additionally, the University has partnered with other U.T. System schools to provide cross-campus courses through the U.T. TeleCampus. UT Dallas currently offers courses in a number of areas from across the campus, including courses in teacher education and the natural sciences. Furthermore, distance learning opportunities now include blended courses that utilize both on-campus and off-campus presentation, providing students an opportunity to maximize their learning by collaborative learning experiences. UT Dallas also works with a number of partner institutions to provide students additional learning opportunities through exchange programs and other collaborative programs both nationally and internationally.

More information about specific distance and e-learning programs or courses at The University of Texas at Dallas and registration procedures can be found in the Class Schedule or on the distance learning web site at <http://www.utdallas.edu/distancelearning/>.

Health Insurance

A group health insurance plan is available to all part-time and full-time registered fee-paying students at. In order to maintain your eligibility you must be enrolled and attend class through the 12th class day.

The Board of Regents of The University of Texas System requires all F and J visa holders to have approved health insurance and repatriation/evacuation coverage while enrolled at any U.T. Institution. Each semester when international students register for classes their account will be assessed the Student Health Insurance (SHI) fee to meet these requirements. This fee may be waived if the student has other approved coverage for the duration of the coverage period. Waivers must be obtained prior to Census Day of each semester.

The Student Health Insurance Office, located in McDermott Library room 1.310, provides assistance to all students requesting information about the student health insurance policy, filing claims, finding medical care, understanding the explanation of benefits, etc. The SHI Office makes available to all students guidance about their insurance related issues. For more information on UT Dallas's Student Health Insurance Services, see our web site, <http://www.utdallas.edu/insurance/>.

Health Services

The Student Health Center offers routine medical treatment to all currently enrolled students who have paid their tuition, have a Comet Card and are attending classes. Services include diagnosis and treatment of acute illnesses and injuries, general medical problems, some gynecological problems, health education, and limited immunizations. Chronic health problems and patients who are pregnant are out of the scope of practice of the Health Center and must be managed by an off campus provider. While there is no cost for most services, there are charges for laboratory services, medications and specific procedures provided at the Health Center. The Health Center schedules patients by appointment and promptness of arrival for your appointment is important. All charges for services or treatment obtained from facilities other than the campus Health Center are the full responsibility of the individual student. The staff at the Health Center make referrals as indicated.

The Student Health Center provides information on the prevention and transmission of HIV infection and AIDS, offers HIV and AIDS education programs, and offers testing.

Information about bacterial meningitis is available upon request at the Student Health Center. Information also is distributed in Orientation packets, in the *A to Z Guide to Student Life*, in the graduate and undergraduate applications for admission to the University and is published in the University newspaper, *The Mercury*, at the beginning of each semester.

Health Education and the Health Education Coordinator are also a part of the Student Health Center and offer many educational materials, information and programming on various health subjects.

All medical services and records are held confidential to the extent permitted by law and are governed by the *Family Educational Rights and Privacy Act*, the *Texas Open Records Act*, and Article 5561(h), *Vernon's Annotated Texas Civil Statutes*.

The Student Health Center is located in the Student Union (SU 1.606), (972) 883-2747.

The University of Texas at Dallas does not have immunization requirements other than TB testing for all persons born outside the United States.

International Student Services

The International Student Services Office provides services to students that hold a non-immigrant visa status while studying at UT Dallas. The office staff offers individual counseling as well as group workshops to aid international students in understanding and complying with U. S. Department of Homeland Security regulations relating to their stay in the United States as non-immigrants. Services include issuance of F-1 and J-1 immigration documents, workshops regarding Optional and Curricular

Practical Training, invitation letters for visiting family members, travel authorizations, and enrollment letters. Special programs include International Student Orientation, Introductions to US Classroom Culture, International Festivals, Non-Immigrant Tax Workshops, Immigration Attorney workshops, etc. The International Student Services Office also administers the UT Dallas student health insurance program. The health insurance plan is available at a minimal cost to all full- or part-time students and their families. Health insurance is required for all international students. The International Student Services Office, MC 1.310, may be contacted by calling (972) 883-4189. Information is also available at <http://www.utdallas.edu/student/international/>.

Learning Resources

The Learning Resource Center offers assistance to students in the areas of reading, writing, mathematics, and study skills. These services are available through individual appointments, group workshops, short courses, and video tapes.

The **Writing Lab** offers one-to-one assistance with writing assignments and general writing skills. Appointments are required.

The **Math Lab** gives short-term and semester-long support for a variety of mathematics courses. Students may drop in or visit these labs on a regular basis.

The **Supplemental Instruction** program offers facilitated group study sessions as a supplement to many UT Dallas courses. Students should check with the center for availability of individual tutoring in specific subjects.

The Learning Resource Center also offers developmental math, reading, and writing classes. These classes are for credit, but they do not count toward graduation.

Assistance is also available in study skills, note taking, writing, test taking, algebra, and preparation for the THEA (required for teacher certification), GRE, GMAT, and LSAT. In addition, students can receive help with time management, basic mathematics improvement, test-anxiety reduction, and various other study techniques and strategies. All students enrolled at the University are eligible for these services.

The center, located in MC 2.402 – MC2.412, may be contacted by calling (972) 883-6707.

Multicultural Center

The Multicultural Center (MC) provides cultural programs, support services, resources and cultural education programs. The MC is a place for students, faculty and staff to gather and relax. The MC has a comfortable lounge area with a television, videos, computer lab, work station, and a meeting room. Traditional events hosted by the MC are Hispanic Heritage Month, Black History Month, MLK Jr. Breakfast, Asian-American Heritage Series, Native American Heritage program and the Leadership Speaker Series. The MC is home to the Multicultural Peer Advocates (MPA's). The MPA's are student peer advocates that are available for personal, social or academic assistance.

Office hours are Monday through Thursday 8:30 am – 6:30 pm, Friday 8:30 am – 5:00 pm. Location: Conference Center CN1.126. Email: Multicultural@utdallas.edu. Phone: (972)883-6390. Website: <http://www.utdallas.edu/multicultural/>. Director: Arthur Gregg.

Professional Preparation

Students at the University who wish to prepare for a career in teaching, law, medicine, or a paramedical field should make every effort to ensure that their course work at the upper division is in keeping with particular requirements of that chosen profession.

Health-Related Professions

Healthcare professional programs do not state a preference about an undergraduate major field, thus permitting students to choose degree programs that correspond to their special abilities and interests. Students interested in the

health professions may choose any major as long as they meet the minimum requirements stated by the professional school in question. Students who wish to continue their education in any professional program of study should contact the Health Professions Advising Center (HPAC) during their first semester at UT Dallas. The advisors may be reached by calling 972-883-6767 or by visiting their office at JO 4.800. More information may be found on their website at <http://www.utdallas.edu/pre-health/>.

Law

Law school admission committees do not normally state a preference regarding an undergraduate major field of study, thus permitting students to choose degree programs that correspond to their special abilities and interests. A pre-law internship is available for students from across the University who plan to practice law. Students interested in a career in law should contact the pre-law advisor in the Office of Undergraduate Education, MP 3.206, or by calling 972-883-4607. The Pre-Law website is located at <http://www.utdallas.edu/dept/pre-law/>.

Teacher Certification

Students who wish to gain certification to teach in Texas schools may do so at UT Dallas. Students must first be admitted individually to the academic program of their choice. They must also seek admission to Teacher Certification through the Teacher Development Center (972) 883-2730 as early as possible. The Teacher Certification website is located at <http://utdallas.edu/teach/>.

Professional education courses, including student teaching, of at least 18 semester hours are prescribed to meet state certification regulations. Certification requirements may increase the number of semester hours normally required for graduation. Careful planning and utilization of electives for fulfillment of professional requirements may allow the student to avoid such an increase.

Teaching fields in which certification for Grades 8 - 12 may be earned are English Language Arts and Reading, Social Studies, Computer Science, History, Life Sciences, Physical Science, Science, Chemistry, and Mathematics. Teaching fields in which certification for Grades 4 - 8 may be earned are Science, Mathematics, Social Studies, English Language Arts and Reading, and Generalist 4-8. The Generalist Certificate is the only teaching field available at UT Dallas for Early Childhood (EC)– 4 certification.

All students interested in Teacher Certification should consult the section on Teacher Certification in the catalog, as well as the appropriate subject area.

Recreational Sports

The Department of Recreational Sports encourages students, faculty, and staff to get involved and interact with several different recreation programs. Recreational Sports provides UT Dallas with a quality facility and diverse recreational programs to enhance the overall educational experience. Our goal is to expand the knowledge of and participation in recreational activities in order to foster healthy lifestyles, sportsmanship, teamwork, and leadership.

The Activity Center is managed by the Department of Recreational Sports and contains a state of the art fitness center, 4 racquetball courts, 2 squash courts, 4 basketball courts, a multi-purpose room, and a 25-yard indoor swimming pool. In addition to the Activity Center, Recreational Sports oversees the outdoor basketball courts, sand volleyball courts, soccer fields, tennis courts, and softball fields.

The Department of Recreational Sports is made up of 5 program areas: Aquatics, Club Sports, Fitness, Informal Recreation, and Intramural Sports. These areas are designed to offer each participant a variety of events and activities. Recreational Sports believes that there is something for everyone.

ROTC Programs

Students at The University of Texas at Dallas may participate in the Air Force ROTC program at The University of North Texas, or in the Army ROTC program at The University of Texas at Arlington.

Students register for the ROTC courses by contacting the Office of the Registrar at the time they register for other UT Dallas courses. Payment for the courses is through the UT Dallas Bursar Office by the published payment deadlines. The ROTC courses are used as elective courses. Successful completion of degree requirements and the respective ROTC program can lead to a commission as a second lieutenant in the United States Air Force or the United States Army.

For further information and application procedures, contact: AIR FORCE ROTC, Detachment 835, Air Force ROTC, The University of North Texas, P.O. Box 305400, Denton, Texas 76203-5400, Telephone (940) 565-2074; or ARMY ROTC, Enrollment Officer, Army ROTC, The University of Texas at Arlington, P.O. Box 19188 Arlington, Texas 76019, Telephone (817) 272-3281 (metro).

Student Counseling Center

Students are assisted in resolving personal difficulties and enhancing skills in order to succeed in their academic pursuits, as well as achieve personal and emotional well-being. Students' development is facilitated by a variety of services including personal counseling, psychiatric services, consultation, and outreach. The Student Counseling Center also serves the UT Dallas community by providing crisis management and intervention. In addition, the Center is committed to the training and education of graduate students as future helping professionals.

Stress, depression, anxiety, and adjusting to life transitions are some of the issues that bring students to the Counseling Center for confidential Individual Counseling. Other common concerns include relationship conflicts, grief and loss, loneliness, self-esteem, body image, eating disorders, or planning for the future. Relationship Counseling for students and their partners focuses on resolving conflicts and improving communication. Psychiatric referrals are provided for students in counseling when it is determined that such assistance would benefit a student and their treatment. Consulting is provided to students, faculty or staff for helping a friend, family member or student with a personal problem. Workshops are offered during the semester to assist students in developing life skills such as time management, effective communication and managing test anxiety. The Personal Development Library includes books, audiotapes, and self-help videos with information on a wide range of topics including sexuality, relationship enhancement, dealing with emotions, and personal growth.

Services are provided by licensed mental health professionals and trainees under the supervision of licensed psychologists. The center is a member of the Dallas Metropolitan Consortium in Psychology, a training program for pre-doctoral psychology interns that is accredited by the American Psychological Association. For more information, visit our website at <http://www.utdallas.edu/counseling/>.

Student Union 1.608
(972)883-2575
James Cannici, PhD Director

Student Exchange – U.T. System

The U.T. System Student Exchange program is designed to allow upper-division students enrolled in an institution of the U.T. System to take courses or engage in research at another institution within the System during a regular semester or summer session.

A UT Dallas student in good standing who has completed at least 60 semester credit hours is eligible to participate in the exchange program. Approval by the student's Associate Dean of Undergraduate Education is also required. Visiting students register and pay tuition and required fees at their home institutions and are given normal privileges associated with available student services at the exchange institution. Visiting students are subject to the rules and regulations of both institutions.

Each U.T. System institution has designated an individual to coordinate and approve undergraduate student exchanges. Interested UT Dallas students should contact the Office of the Dean of Undergraduate Education for additional information: phone (972) 883-6706 or e-mail ugdean@utdallas.edu. Students at other U.T. System schools wishing to take courses at The University of Texas at Dallas under this exchange program should contact and work through the office designated by their home institution.

Student Government

Through the Student Government a student can express views to the student body, the faculty, and the administration. The Student Senate is composed of senators elected at-large and elected by school each spring. The president and vice president are elected by the student body each spring. Further information may be obtained from the Student Government Offices in the Student Union, SU 2.604, (972)883-2284.

Student Involvement

The University of Texas at Dallas encourages student involvement and provides numerous opportunities for students to further their co-curricular and extra-curricular interests. Students may have a voice and contribute to student life through participation in the Student Government, the Student Union and Activities Advisory Board, Student Media (UT Dallas Mercury and Radio UT Dallas), Greek Life, Spirit Program, various University committees, and student organizations. For more information contact the Office of Student Development, SU 2.604, (972) 883-6158 or the Center for Student Involvement, SU 2.506, (972)883-6551.

Student Life

Student Life offers a variety of student services and programs, including Disability Services, New Student Programs, Multicultural Center, Intramural and Club Sports, NCAA Division III Athletics, Residential Life, Student Publications, the Student Union and Activities Advisory Board, Service Learning, and the Child Care Center. Student Life also provides support for student organizations and assists students in the interpretation of University rules and regulations including those regarding student discipline and conduct. Call (972) 883-6391 for more information.

Student Organizations

Registered student organizations provide the major means by which students can contribute to student life while developing friendships, interests, talents, and leadership skills. There are over 100 student organizations at UT Dallas that cater to a variety of interests, such as academic and honor groups, service clubs, religious groups, ethnic groups, and special interest groups. Detailed information on the groups and guidelines for forming new organizations is available in the Center for Student Involvement (2.506) in the Student Union, (972) 883-6551.

Student Publications

The *UT Dallas Mercury* is the official student newspaper of the University. It is published bi-weekly. Funded with student service fees and advertising sales, the Mercury is available without charge to all students. Other publications are the Guide to Student Life mailed to new students each semester and This Week at The University of Texas at Dallas, a weekly publication distributed on campus.

The *UT Dallas Mercury* newsroom can be reached at (972) 883-2286. For more information regarding the *UT Dallas Mercury*, contact (972)883-2290 or visit their office at SU 2.416.

Student Union

The North Wing of the Student Union houses the Comet Café, the Info Depot, lounges, Radio UT Dallas, a television lounge, billiards and ping pong, a payphone, first-aid medical dispenser and a vending area with microwaves. In addition, an ATM is located in the Comet Café. The annex to the North Wing features The Pub, the best place to hang out on campus, listen to state-of-the-art stereo and catch the latest news or sporting events on television. The annex also houses expanded dining space, three meeting rooms, a childcare facility, Comet Card administrative offices, and a student organization suite.

The South Wing of the Student Union houses student service offices and provides areas for meetings and activities. The first floor houses the Dean of Students, Residential Life, New Student Programs, Student Health Services, Disability Services, Counseling Center, and Child Care Center. On the second floor are meeting rooms plus offices for Student Government Association, Greek Life, The UT Dallas Mercury, Student Development, SUAAB, Late Night Programming and Student Union staff.

The Student Union is open 24 hours a day, seven days a week.

Student Union and Activities Advisory Board

The Student Union and Activities Advisory Board (SUAAB), located in SU 2.506B, plans co-curricular and extra-curricular programs and events for the UT Dallas community. SUAAB's goal is to provide programs to enrich students' lives and to provide opportunities for faculty-student interaction. For more information, contact (972)883-6438.

Study Abroad

Information about educational opportunities in other countries, including study abroad, international internships, international research opportunities, and international scholarship programs, is available at the Office of International Education (OIE), located in Jonsson, JO 5.504. Students are required to attend an advising session before seeking staff assistance in selecting the program most appropriate to their individual needs and interests. The advising sessions include University policies governing study abroad, program options, funding sources, and application and selection procedures. Information is also disseminated through publications, special events, group meetings, individual appointments, reference materials and at the OIE web site, <http://www.utdallas.edu/utdgeneral/provost/oie/>. (See "International Education" located in the Academic Policies and Procedures section of the catalog for more details).

University Housing Information

University Housing is provided on campus with several affordable apartment living choices for those who appreciate the advantage of being able to walk from their residence to class. The apartments are reserved for The University of Texas at Dallas students and offer a variety of floor plans and prices. Locations include University Village, a community owned by UT Dallas and managed by American Campus Communities, and Waterview Park Apartments, a community owned by the Utey Foundation managed by University Partners.

In accordance with University policy, all freshmen are required to live in either University Village or in the new suite-style 400-bed residence hall, which is scheduled to open in the fall of 2009.

For more information please <http://www.utdallas.edu/student/slfe/housing/>.

Or contact:

University Village
2800 Waterview Parkway
Suite #200
Richardson, TX 75080
(972)792-9100

Waterview Park Apartments
2800 Waterview Parkway
Suite #100
Richardson, TX 75080
(972)454-5000

UT Dallas' Residential Life Office works with students to build a community at the apartments and to assist students with concerns related to apartment living. Residential Life staff members are also available to assist personal and academic concerns. For more information please call (972)883-6391.

University Libraries

The Eugene McDermott Library and the Callier Library support the research, instruction, and community service programs of the University by providing access to information in both print and electronic forms. The libraries consist of over two million items, including more than a million volumes, over 30,000 current periodical titles, as well as one million government documents, microforms, and maps. The McDermott Library is a U.S. and Texas state depository.

Special collections include the Wineburgh Philatelic Research Library, the Belsterling Collection, and the History of Aviation Collection.

The libraries provide an ever-expanding digital collection that is available to distance learners. Users connect to these resources through the library portal at <http://www.utdallas.edu/library/>. Current students have unlimited access to the digital library.

The librarians and staff provide competent and cordial interactions with the people they serve. Librarians provide class and individual instruction on the use of the library.

The library collections are enhanced by the Interlibrary Loan Service, which provides students with books or articles from a network of major libraries. Student research is facilitated by copiers available to duplicate from paper, microfilm, or microfiche. The Electronic Reference Center provides connections to our electronic material. The libraries offer students with disabilities a range of services to encourage their independent research.

UTD Child Care Center

A licensed Child Care Center under the supervision of the Office of Student Life and the Richardson YWCA is located in the Student Union. Evening care is available for children ages four to eleven of University students. For additional information call (972) 883-2945.

Varsity Sports

UT Dallas is a member of the NCAA Division III and America Southwest Conference and sponsors thirteen men's and women's sports including soccer, basketball, cross-country, tennis, golf, softball, baseball and women's volleyball. Aspiring student athletes are encouraged to contact the coaching staff of their chosen sport(s) by calling (972) 883-4490. Intercollegiate athletics is a vital component of the total campus life and spirit at The University of Texas at Dallas.

Degree Programs

Academic Degree Requirements

An undergraduate education at The University of Texas at Dallas is designed with several goals in mind. First, the purpose of an undergraduate education is to acquaint students with ways of knowing the world of the natural sciences, mathematics, arts, humanities, and social and behavioral sciences. Therefore, all students are required to complete a Core Curriculum consisting of 42 semester credit hours. Secondly, students are expected to acquire depth in a field of study. To this end, students must fulfill the major and related requirements of a specified number of semester credit hours for their major. Thirdly, students are encouraged to take courses outside of their major and related field and beyond the Core Curriculum, and thus students are given free and advanced elective hours in which to explore intellectual domains beyond their area of specialization and beyond the core requirements.

In order to graduate with a baccalaureate degree from UT Dallas, students must complete and receive credit for all graduation requirements stated on page 31 "Graduation Requirements" as well as specific degree requirements.

Students are responsible for fulfilling their degree requirements and enrolling in courses appropriate to their degree programs. Students should, at the lower division, complete all freshman and sophomore prerequisites for the degree program. These requirements are set by the degree program and are listed under the program heading in the catalog; the number of semester credit hours may vary according to degree program. Students who are Texas residents should be aware that state law limits the number of semester credit hours that an undergraduate Texas resident may complete while paying tuition at the rate provided for Texas residents. See the section on "Excessive Undergraduate Hours" on page 48.

Core Curriculum

The University of Texas at Dallas requires that all students complete a general education Core Curriculum of 42 semester credit hours that serves as a broad foundation for the undergraduate degree. These requirements must be met by every student pursuing a baccalaureate degree at The University of Texas at Dallas, regardless of their major. Specific approved courses must be used to satisfy each Core requirement (see the Schedule of Classes). In accordance with the *Texas Education Code*, Chapter 61, Subchapter S, a student who successfully completes the entirety of a Core Curriculum at another Texas public institution of higher education before matriculating at UT Dallas may transfer that block of courses to UT Dallas where it will be substituted for the UT Dallas Core Curriculum. If a student does not complete all of the Core Curriculum at another Texas public institution of higher education before matriculating at UT Dallas, the student will receive credit for the portion completed and then be required to complete additional courses from UT Dallas' Core Curriculum.

Communications (Chart 010) 6 hours

The goal of the communications component of the core curriculum is to develop students' mastery in writing. Students must complete one course that requires them to learn to communicate effectively in clear and correct prose and to master several modes of writing, including descriptive, expository, narrative and self-expressive. Students must also complete a second writing-intensive course that may require them to master specific forms of writing tailored to the professional standards in their major field of study. All courses require that students write, receive detailed feedback about, and revise at least 15 double-spaced pages.

Component Learning Objectives:

1. Students will be able to write effectively using appropriate organization, mechanics, and style.
2. Students will be able to construct effective written arguments.
3. Students will be able to gather, incorporate, and interpret source material in their writing.
4. Students will be able to write in different ways for different audiences.

Mathematics (Chart 020) 6 hours

The goal of the mathematical component of the core curriculum is to develop quantitatively literate citizens, capable of applying mathematical tools in the solution of real world problems. Familiarity with mathematical concepts and tools will enable persons to better cope with the complex financial, business, investing, and daily living problems encountered in the modern world. Students must master the formal principles of a college-level math (algebra or calculus at a higher level than high school algebra II) and one advanced field of mathematics beyond college math (logical reasoning and inference; the application of mathematical concepts; statistical methods; or formal principles of calculus or advanced algebra).

Component Learning Objectives:

1. Students will be able to apply basic mathematical methods to modeling and solving real-world problems.
2. Students will be able to formulate and interpret basic mathematical information, numerically, graphically, and symbolically.
3. Students will be able to identify and explain the limits of mathematical models.

Natural Science (Chart 030) 9 hours

The goal of the natural science component of the core curriculum is to develop an appreciation of the intricacies of the natural world and to be able to describe and explain some of the basic principles of how the natural world functions. A more scientifically literate population will better cope with understanding and acting on issues of a scientific nature that affect their lives. Each student must complete 9 credit hours of science courses, one of which must have a laboratory component.

Component Learning Objectives:

1. Students will be able to describe laws, theories or findings basic to the science discipline.
2. Students will be able to apply scientific laws and principles of the discipline to arrive at problem solutions.
3. Students will be able to explain how experiments or observations validate or test scientific concepts.

Humanities (Chart 040) 3 hours

The goal of the humanities component of the core curriculum is to examine a variety of literary, philosophical, and/or historical works drawn from the humanities and presented in an established context as examples of expressions of individual and human values. Students will develop proficiency in research, critical thinking, and writing through a series of assignments in which they will demonstrate analytical processes of thought as well as intellectual responses to designated materials. Students must complete at least one course that is representative of literature, philosophy, cultural studies, modern language, or classic language.

Component Learning Objectives

1. Students will be able to examine and analyze a variety of works from the humanities, particularly those connected to literature and philosophy.
2. Students will be able to analyze and critically evaluate such works in the context of culture, society, and values as well as be able to compare and contrast the works with each other.
3. Students will be able to apply considered analysis and respond to works in the humanities as examples of human expression and aesthetic and philosophical principles.

Fine Arts (Chart 050) 3 hours

The goal of the fine arts component of the core curriculum is to expose and illuminate at least one and possibly multiple forms of artistic expression, including but not exclusive to the traditional areas of the performing and visual arts. Through a series of discussions and examinations or reports and/or papers, students will demonstrate their critical awareness of the fine arts, a knowledge of the scope and variety of forms within specific artistic expressions, and an appreciation for the aesthetic principles that guide the creation and evaluation of art on both an individual and cultural level. Students must complete at least one course that is representative of one or more of the visual or performing arts.

Component Learning Objectives

1. Students will be able to examine and respond critically to a variety of artistic forms in at least one and possibly multiple forms of expression drawn from either the visual or performing arts or some combination thereof.
2. Students will be able to demonstrate an appreciation for artistic expression and ability to analyze specific works of art within a cultural or social context.
3. Students will be able to develop a critical approach to a given form or forms of art and will be able to articulate a response in an intelligent and informed manner.

American and Texas History (Chart 060) 6 hours

The goal of the American and Texas history component of the core curriculum is to develop students' comprehension of the scope of the American and Texas historical development through an examination of social, institutional, political, and cultural evolution over specified periods of time in the history of the United States and the State of Texas. Students must complete two courses that address the history of the United States or the State of Texas.

Component Learning Objectives

1. Students will be able to identify, explain, and give examples of significant developments in American and/or Texas history over a defined span of time.
2. Students will be able to examine and analyze historical development through knowledge of institutional, social, cultural, and political evolution and change over a defined span of time.
3. Students will be able to interpret and evaluate the acceptability of historical evidence.

Government (Chart 070) 6 hours

The objective is to increase students' comprehension of the history and evolution of political institutions, and the interrelationship between institutions such as executive and legislative; the role that political institutions play in the lives of citizens, and to demonstrate the relationship between citizens and political institutions including activities such as voting and interest group activity that provides awareness for citizen influence. This knowledge is designed to equip students to be better informed citizens capable of making important decisions in various political contexts. Students must complete two courses that include consideration of the Constitution of the United States and the constitutions of the states, with special emphasis on the Texas Constitution.

Component Learning Objectives

1. Students will be able to provide examples of and apply important theoretical and scholarly approaches to understanding state and national institutional behavior, citizen involvement and interaction between citizens and institutions of government.
2. Students will be able to analyze and appreciate historical trends in development of government institutions and their constitutional foundations.
3. Students will be able to identify, describe, and analyze various mechanisms of citizen political involvement.

Social and Behavioral Science (Chart 080) 3 hours

The goal of the social and behavioral science component of the core curriculum is to increase students' knowledge of how social and behavioral scientists describe, explain, and critically analyze the behaviors and interactions among individuals, groups, institutions, cultures, events and ideas. Such knowledge will better equip students to understand themselves and the roles they play in addressing the issues facing humanity. Students must complete at least one course that is representative of the following social and behavioral sciences: anthropology, economics, geography, psychology, sociology, or women's studies.

Component Learning Objectives

1. Students will be able to describe major theoretical and scholarly approaches, empirical findings, and historical trends in the social/behavioral science discipline.
2. Students will be able to describe and apply basic research methods in the social/behavioral science discipline.
3. Students will be able to apply modes of critical thinking used in the social/behavioral science discipline.

Field of Study

If a student successfully completes a field of study curriculum approved by The Texas Higher Education Coordinating Board, that block of courses may be transferred to The University of Texas at Dallas and substituted for appropriate lower-division requirements of the appropriate degree. Following receipt of credit for these courses, students may be required to satisfy further requirements in the field of study curriculum for that degree at UT Dallas.

Major and Related Areas of Study

Courses taken in satisfaction of requirements for the student's major field of study are major and related courses. Some of these may be outside the courses with the major's designation; such courses are related to the major and required for its satisfaction. Other requirements may be satisfied by courses from lists of guided electives within the major and related courses. Finally, some requirements may be courses preparatory to the major; they are not considered major-core or major-related courses.

Electives

The degree requirements of every major include the opportunity for elective courses, that is, courses exploring subjects not directly related to a student's major. The minimum number of elective hours is 18. Specific exceptions have been granted to Electrical Engineering and Accounting, where the minimum number is 12. Six of the elective hours for all majors are required to be selected from advanced electives, which are defined as upper-division courses, or lower-division courses that have prerequisites, and that are outside the major. All students are encouraged to use their electives to explore fields beyond their major.

Minors

Some academic units designate a set of classes that constitute a minor in that academic unit. The requirements of the minor are set by the faculty of the academic unit offering the minor, not by the academic unit of the student's major field of study. When an academic unit offers a minor in a field of study, it is open to all students in the University regardless of school of origin. Students who take a minor will be expected to meet the normal prerequisites in courses making up the minor. Minors consist of a minimum of 18 credit hours, of which at least 12 must be upper-division hours, although individual academic units may require more hours at their sole discretion. Credit hours may not be used to satisfy both the major and minor requirements; however, free elective hours or major preparatory classes may be used to satisfy the minor. At least one-third of the hours for a minor must be taken at The University of Texas at Dallas. Students enrolled as of Fall 1999 who are pursuing majors under prior catalogs may incorporate minors in their degree plans. Students should consult with an advisor in their major field of study as they select and plan minors.

FERPA

The Family Educational Rights and Privacy Act (FERPA) is a federal law enacted in 1974 to protect the privacy of student education records. The law applies to those institutions that regularly receive federal funding from the Department of Education and is enforced by the Family Policy Compliance Office of the U.S. Department of Education.

FERPA forms for students can be found at <http://www.utdallas.edu/student/registrar/forms/> (click on 'FERPA packet').

Complaints of alleged violations may be addressed to

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue SW
Washington, D.C. 20202-5920

The UT Dallas FERPA violation link is located at <http://www.utdallas.edu/legal/ferpa/>.

FERPA defines an eligible student as a student who has reached 18 years of age or is attending an institution of postsecondary education.

Students have four primary rights under FERPA:

- To inspect and review their education records
- To seek to amend those education records they believe to be inaccurate or misleading
- To have some control over the disclosure of information from those education records
- To file a complaint concerning alleged failures by an institution to comply with FERPA regulations within 180 days

More information regarding education records and the procedure for amending records can be found at <http://www.utdallas.edu/student/registrar/faq.html#FERPA>.

Directory or public information is information that is not generally considered harmful or an invasion of privacy if released. Directory information includes student's full name, address (local and permanent), UT Dallas email, phone numbers, date and place of birth, major field of study, dates of attendance, degrees/awards received, most recent previous school attended, enrollment status (classification, under/grad, part/full-time), participation in officially recognized activities and sports, weight/height of members of athletic team, and photograph.

Non-directory information is information that is not considered to be directory information, such as enrollment records, grades, schedules.

Student may choose to withhold release of directory information. A student may do so by completing the "Request for Confidentiality of Directory Information" form at <http://www.utdallas.edu/student.registrar/forms/> (click on 'FERPA packet').

More information regarding FERPA can be found at <http://www.ed.gov/policy/gen/guid/fpco/>.

Honors Programs

Collegium V

The University offers a 4-year comprehensive program of enrichment and recognition, known as Collegium V, for outstanding students. Collegium V includes special seminar-style classes offered by selected University professors as well as a program of extracurricular activities designed to encourage and reward exceptional academic achievement. Benefits available to participants in Collegium V include registration for Honors seminars, honors advising, 24-hour access to the Collegium V lounge complex, research and internship opportunities with professors, and an agenda of cultural events such as concerts, exhibits, speakers, and plays.

Membership in Collegium V is limited. Interested students must apply directly to the program at:

The Office of Undergraduate Education – MP16
ATTN: Collegium V
The University of Texas at Dallas
PO Box 830688
Richardson TX 75083-0688
(972) 883-4297

Honors in the Major

Each school offers qualified students the opportunity to participate in an honors program within their discipline. Each program provides two levels of recognition, Honors and Distinction. All students must have completed a minimum of 30 graded semester credit hours to qualify for major honors. The requirements for major honor's recognition vary across schools. Students should review the descriptions within the school section of the catalog.

Other Degree Requirements

Double Degree

To qualify for a double degree, a student must complete all of the requirements for both degrees as stated in the catalog, plus 30 semester credit hours of upper-division (3000/4000) courses beyond those for the degree with the greater credit requirements for a minimum of 81 upper-division semester credit hours.

Double Major

With the approval of the relevant Associate Dean, students may complete a double major by satisfying all requirements set by each program. This shall include no fewer than 12 semester credit hours at the University in each major field.

If the two majors lead to a B.A. and a B.S., the student must choose which baccalaureate will appear on the degree. Double majors in Interdisciplinary Studies are not available.

For information concerning honors, please see "Graduation with Honors," page 32.

Incoming Freshmen

All students coming to The University of Texas at Dallas directly from high school must complete RHET 1101, Oral Communication/Critical Thinking, preferably during their first semester in attendance. Prior experience as a full-time student in college or many years in the work force may be a suitable substitute to RHET 1101. The Associate Dean of Undergraduate Education or the Undergraduate Dean may waive this requirement based on a student's prior experiences. This small group class focuses on the most important aspects of adapting to college. Students take part in discussions and demonstrations related to personal management, motivation, academic skills and work habits, communication skills and social relationships. Specific exercises promote critical thinking and creative planning. RHET 1101 contributes to the elective requirements within a student's degree plan.

Graduate Programs

The University of Texas at Dallas has had a program of graduate study and research since the establishment of its predecessor, the Southwest Center for Advanced Studies. The nature of this pursuit has ranged widely, from the key instrumentation of lunar exploration to a search for new energy sources, to problems in the biochemical repair of animal cells.

This legacy of teaching and research has continued in new graduate areas as the University has grown to meet the educational and societal needs of the times. Some of the programs are interdisciplinary in nature; others reflect a single area of study.

Students entering at any level are urged to consider the opportunities afforded by accelerated Fast Track programs leading to degrees at the master's level. Early preparation for such advanced work is the key to swift progress. Such Fast Track programs often utilize graduate courses in a student's undergraduate degree plan; see page 30 for taking graduate courses while still an undergraduate.

Graduate degrees currently offered include:

School of Arts and Humanities

Humanities (M.A., M.A.T., Ph.D.) with majors in
Aesthetic Studies
History of Ideas
Humanities
Studies in Literature
Fast Track B.A./M.A. available

School of Behavioral and Brain Sciences

Applied Cognition and Neuroscience (M.S.) Fast Track B.S./M.S. available
Audiology (Au.D.)
Communication Disorders (M.S.) Fast Track B.S./M.S. available
Human Development and Communication Sciences (Ph.D.)
Human Development and Early Childhood Disorders (M.S.) Fast Track B.S./M.S. available

School of Economics, Politics and Policy Sciences

Economics (M.S.) Fast Track B.S. /M.S. available
Applied Sociology (M.S.) Fast Track B.A. or B.S. or M.S. available
Economics (Ph.D.)
Geospatial Information Sciences (M.S.) Fast Track B.S. /M.S. available
Political Science (Ph.D.)
Public Policy and Political Economy (Ph.D.)
Public Affairs (MPA) Fast Track B.A. /MPA and B.S. /MPA available

Erik Jonsson School of Engineering and Computer Science

Computer Engineering (M.S., Ph.D.) Fast Track B.S.C.S./M.S.C.E. available
Computer Science (M.S., Ph.D.)
Fast Track B.S.C.S. /M.S.C.S. with major in SE available
Electrical Engineering (M.S.E.E., Ph.D.) Fast Track B.S.E.E. /M.S.E.E. available
Software Engineering (M.S.C.S. with major in SE, Ph.D.)
Fast Track B.S.S.E. /M.S.C.S. with major in SE available
Telecommunications Engineering (M.S.T.E.) Fast Track B.S.T.E. /M.S.T.E. available

School of General Studies

Interdisciplinary Studies (M.A.)

School of Management

Accounting and Information Systems (M.S.) Fast Track B.S. /M.S. available
 Business Administration (MBA) Fast Track B.S. /MBA available
 Information Technology and Management (M.S.)
 International Management Studies (M.A., Ph.D.)
 Management and Administrative Sciences Fast Track (Finance Concentration) B.S. /M.S. available
 Management Science (Ph.D.)
 Medical Management (M.S.)

School of Natural Sciences and Mathematics

Applied Physics (M.S.)
 Biotechnology (M.S.)
 Chemistry (M.S., Ph.D.) Fast Track B.S. /M.S. available
 Geosciences (M.S., Ph.D.) Fast Track B.S. /M.S. and B.S. /M.S.G.I.S. available
 Mathematical Sciences (M.S.) Fast Track B.S. /M.S. available with majors in
 Applied Mathematics (M.S., Ph.D.)
 Engineering Mathematics (M.S.)
 Mathematics (M.S.)
 Statistics (M.S., Ph.D.)
 Mathematics Education (M.A.T.)
 Molecular and Cell Biology (M.S., Ph.D.) Fast Track B.S. /M.S. available
 Physics (M.S., Ph.D.) Fast Track B.S. /M.S. available
 Science Education (M.A.T.)

For additional information in planning a graduate career at The University of Texas at Dallas, please refer to the University's graduate catalog.

Undergraduate Programs

Programs are listed in alphabetical order under the school headings: Arts and Humanities, Behavioral and Brain Sciences, Economics, Political and Policy Sciences, Engineering and Computer Science, General Studies (including Teacher Education), Management, and Natural Sciences and Mathematics. These are followed by course listings for Developmental Courses, Interdisciplinary Studies, and Physical Instruction. Course descriptions for Core Curriculum courses are under the headings of the programs offering the courses. An alphabetical list of all undergraduate classes is included separately.

The degree requirements for each program are presented in the same format. There are course requirements in three broad areas: Core Curriculum, program major, and electives. Each program will recommend specific courses to be used in meeting core curriculum requirements. Under major requirements, each program lists the required major preparatory courses, major core courses to be taken by all students, and major related courses. The related courses section defines options or concentrations within the major. Elective requirements vary by program but all students are required to complete six hours of advanced electives.

School of Arts and Humanities

Faculty

Professors: Alexander Argyros, Charles R. Bambach, Richard Brettell, David F. Channell, Milton A. Cohen, Fred I. Curchack, R. David Edmunds, Dennis M. Kratz, Thomas E. Linehan, Enric Madriguera, Adrienne L. McLean, Mihai Nadin, Zsuzsanna Ozsvath, Stephen G. Rabe, Tim Redman, R. Clay Reynolds, Thomas P. Riccio, Robert X. Rodriguez, W. Jack Rushing III, Rainer Schulte, Theresa M. Towner, Frederick Turner

Associate Professors: Pamela Gossin, Ming Dong Gu, Midori Kitagawa, Patricia H. Michaelson, Robert Nelsen, John J. Pomara, Nils Roemer, Dean Terry, Marilyn Waligore, Daniel B. Wickberg, Michael L. Wilson

Assistant Professors: Susan Briante, Sean J. Cotter, Frank Dufour, Monica Evans, J. Michael Farmer, Todd Fechter, Charles Hatfield, Fabrice Jotterand, Michelle Nickerson, Peter Park, David Parry, Monica Rankin, Venus O. Reese, Natalie J. Ring, Scott Swearingen, Charissa Terranova

Senior Lecturers: John F. Barber, Bruce Barnes, Elizabeth Bell, Kelly P. Durbin, Maria Engen, Kathryn C. Evans, John Fowler, John Gooch, Dianne Goode, Michele Hanlon, Janet Johnson, Tom M. Lambert, Kathy Lingo, Mary Medrick, Greg L. Metz, Monica M. Saba, Betty H. Wiesepape

Research Associates: Thomas Bywaters, Dennis Walsh

Emeritus Professors: Joan Chandler, Esteban R. Egea, S. Michael Simpson, Gerald L. Soliday, Deborah Stott

The School of Arts and Humanities offers baccalaureate degrees in Art and Performance, Historical Studies, Literary Studies, Arts and Humanities, and Arts and Technology. The first three majors integrate traditional courses of study in the studio arts and theatre; history and philosophy; and American, English, Spanish, and other literatures. The fourth integrates elements of the other three majors.

The Arts and Technology degree emphasizes the mutually productive interaction of technology with the arts, with specific emphasis on the interplay of visual art, music, and narrative with the new modes of expression and communication that have emerged from the convergence of computing and media technologies. The program stresses not only the creation but also the potential applications and cultural implications of interactive media.

Students in the School of Arts and Humanities are encouraged to explore the boundaries and the interrelationships of the major fields of study within the school. Consistent with this focus on the integration of the arts and humanities and a commitment to interdisciplinary education, the school has no conventional departments. Rather, its curriculum is designed to allow study that crosses and transforms traditional disciplinary lines.

Each student in the school consults regularly with an advisor, who helps the student design an integrated program of coursework. At least 42 semester hours of upper-division course work of the total of 51 upper-division hours required to complete the B.A. are completed within the major and related fields.* All students complete a 3-hour core course (HUMA 3300) that introduces the methods, strategies, and theories of inquiry and interpretation that are elaborated in subsequent arts and humanities courses.** In addition to HUMA 3300, students complete either 3, 6, or 12 hours of core course work (depending on the major selected), a series of major requirements and electives, and the remaining hours in related course work from within the School of Arts and Humanities. Students may use Interdisciplinary Studies courses and electives to complement and enrich their programs of study.

*The Arts and Technology Major requires only 39 semester hours in required upper division course work and prescribed electives.

**HUMA 3300 is not required of Arts and Technology Majors

Teacher Certification

Students interested in teaching in secondary schools can achieve Texas Teacher Certification in English and/or History and/or Composite Social Studies as part of their majors in either Literary Studies or Historical Studies. Immediately after being admitted to the University, interested students should meet with an advisor in the Teacher Development Center to receive a certification plan and with an Arts and Humanities adviser in Literary Studies or Historical Studies to receive a degree plan. Further details may be found in the Teacher Education section of the catalog.

Fast Track Baccalaureate/Master's Degrees

The Fast Track program is designed to permit exceptional undergraduate students in Arts and Humanities majors to begin work on the master's degree before graduation.

Qualified seniors at U.T. Dallas, who have completed at least 30 hours of upper-division work and the core courses in their major, may take up to 12 credit hours of approved graduate courses in Arts and Humanities during their senior year and apply these hours to their undergraduate degree plans as either major and related courses or electives. After admission to the graduate program, up to 12 graduate hours may be used to complete the bachelor's degree and also to satisfy requirements for the Master's degree.

For further information on the Fast Track program, see the Associate Dean for Undergraduate Education of the School of Arts and Humanities.

Minors

To minor in the Arts and Humanities, students must take a minimum of 18 hours for the minor, 12 of which must be upper-division hours. Core courses offered by the school may count as lower-division hours toward the minor. Students may choose to minor in any of the following fields of study:

Art History	Music
Creative Writing	Performing Arts
History	Philosophy
Literature	Visual Arts
Medical and Scientific Humanities	

Students may contact their academic advisor for a list of the courses that satisfy each minor.

Related Minor Areas:

Minor in Gender Studies (18 hours)

The Gender Studies minor is 18 semester hours. The courses consist of GST 2300, two other Gender Studies core courses, and nine hours of approved Gender Studies electives.

Minor in Spanish/Hispanic Area Studies (18 hours)

Six semester hours of college-level Spanish (may include Beginning Spanish) and at least six semester hours in courses in the School of Economic, Political and Policy Sciences, to be chosen from the following: ECO 4360, ECO 4362, ECO 4396, GOVT 3328, GOVT 3350, SOC 4396, and six hours of such courses in the School of Arts and Humanities, to be chosen from the following: HIST 3358, HIST 4359, HIST 4376, HIST 4V71, LIT 3385, LIT 4V71, SPAN 3360, SPAN 3361, SPAN 3364.

Arts and Humanities Core Course

HUMA 3300 Reading and Writing Texts (3 semester hours) Focuses on a significant topic or issue through which students are offered an opportunity to gain experience in various analytic and interpretive approaches. Explores connections among artistic and intellectual endeavors appropriate to a range of courses in the Arts and Humanities. Prerequisite: HUMA 1301 or equivalency. This course is a requirement for all AH, AP, HIST, and LIT majors and should be taken prior to completing the first 12 hours of upper-division course work. (3-0) S

Art and Performance (B.A.)

Students who complete the major in Art and Performance (AP) pursue an interdisciplinary study of the arts by selecting among courses in historical context, studio practice, performance ensemble, creative writing, and ideas and interpretation of the arts. In the AP core course, students will experience the theory and practice of the arts in a workshop setting and, in studio or ensemble courses, will gain practical experience in at least one area of the visual or performing arts or creative writing. Courses in the historical context and interpretation of the arts will enable students to understand how style, subject matter, and materials may respond to different motivations and purposes. In their selection of required and elective courses, students are encouraged to focus their coursework around one of the following areas: art history (early or modern period), two-dimensional or three-dimensional studio art, creative writing, art and technology (computer imaging, photography, video art), or music/theatre/performance.

Since the following catalog course descriptions are very general, students are urged to consult the detailed course descriptions available on the web site for the School of Arts and Humanities.

Unless otherwise noted, courses in Art and Performance are open to all students in the University.

Bachelor of Arts in Art and Performance Degree Requirements (120 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (HUMA 3300)
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Science Elective
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 3 hours College Math (MATH 1314 is recommended)
 - 3 hours Quantitative Mathematics (STAT 1342)
- E. Science (9 hours including at least one course with a substantial laboratory component)

¹Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements, Lower Division: 3 hours

One of the following:

- AHST 2331 Understanding Art
- DANC 1310 Understanding Dance
- DRAM 1310 Understanding Theater
- FILM 2332 Understanding Film
- MUSI 1306 Understanding Music

III. Major Requirements, Upper Division: 42 hours

Major Core Courses (6 hours)

- AP 3300 Elements of Art and Performance
- HUMA 3300 Reading and Writing Texts²

Major Distribution and Elective Courses (24 hours)

- 3 hours upper-division Historical Context courses
 - 6 hours of upper-division courses from Studio and Ensemble courses
 - 15 hours of upper-division Art and Performance electives
-

Major-Related Courses (12 hours)

Students may select any combination of upper-division courses in Historical Studies, Philosophy and/or Literature and Language.

²A required Major course that also fulfills a Core Curriculum requirement. If the course is counted in the Core Curriculum, the student takes an additional 3 hours of elective credit.

IV. Elective Requirements: 36 hours**Advanced Electives (6 hours)**

Students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division courses that have prerequisites.

Free Electives (30 hours)

Both upper- and lower-division courses may be used as electives, but students must complete at least 51 hours of upper-division credit to qualify for graduation.

Historical Studies (B.A.)

Students who complete the major in Historical Studies may design distinctive degree programs by selecting among courses in historical and philosophical methods and approaches, traditional historical surveys, and specific historical and philosophical topics. Students are encouraged to focus their work in Historical Studies on a particular time or place, a significant theme, topic, or problem, or an approach to learning such as literature, the arts, ideas, science and technology, or the social sciences. Students may also be certified to teach history and/or social studies and/or English.

Since the following catalog course descriptions are very general, students are urged to consult the detailed course descriptions available on the web site for the School of Arts and Humanities.

Courses in Historical Studies are open to all students in the university.

**Bachelor of Arts in Historical Studies
Degree Requirements (120 hours)****I. Core Curriculum Requirements¹: 42 hours**

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (HUMA 3300)
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Science Elective
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 3 hours College Math (MATH 1314 is recommended)
 - 3 hours Quantitative Mathematics (STAT 1342)
- E. Science (9 hours including at least one course with a substantial laboratory component)

¹Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements, Lower Division: 3 hours

PHIL 1301 Introduction to Philosophy or equivalent

III. Major Requirements, Upper Division: 42 hours

Major Core Courses (6 hours)

- HIST 3301 Historical Inquiry
 HUMA 3300 Reading and Writing Texts²
 Major Distribution and Elective Courses (24 hours)
 3 hours of upper-division courses from each of the following groups:
 European Historical Studies
 Asian, African, and Latin American Historical Studies
 Studies in Philosophy and Intellectual History
 Historical Studies with content before 1800
 12 hours of upper-division Historical Studies electives
 Major-Related Courses (12 hours)
 Students may select any combination of upper-division courses in Art and Performance, Art History, Arts, Communications, Creative Writing, Dance, Drama, Film Studies, Literature and Language, and/or Music.

²A required Major course that also fulfills a Core Curriculum requirement. If the course is counted in the Core Curriculum, the student takes an additional 3 hours of elective credit.

IV. Elective Requirements: 33 hours

- Advanced Electives (6 hours)
 Students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division courses that have prerequisites.
 Free Electives (27 hours)
 Both upper- and lower-division courses may be used as electives, but students must complete at least 51 hours of upper-division credit to qualify for graduation.

Literary Studies (B.A.)

Students who complete the major in Literary Studies receive a thorough grounding in literary ideas and methods as well as a broad acquaintance with literatures of different periods and cultures, including literature in translation. Courses in this major are divided into the following groups: Literary Genres, English and American Literature, General Literature Courses, and Foreign Languages and Literatures. By selecting courses from a variety of these headings, students are able to combine courses in criticism and interpretation, in writing and translation, and in linguistics and languages. Students may also be certified to teach English and/or history and/or social studies.

Since the following catalog course descriptions are very general, students are urged to consult the detailed course descriptions available on the web site for the School of Arts and Humanities.

Unless otherwise noted, courses in Literary Studies are open to all students in the university. However, students majoring in Literary Studies should take LIT 2341 Literary Analysis as a pre- or corequisite for all other Literary Studies courses except LIT 3300.

Bachelor of Arts in Literary Studies Degree Requirements (120 hours)

- I. Core Curriculum Requirements¹: 42 hours**
- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (HUMA 3300)
 - B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Science Elective
 - C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)

- D. Mathematics and Quantitative Reasoning (6 hours)
 - 3 hours College Math (MATH 1314 is recommended)
 - 3 hours Quantitative Mathematics (STAT 1342)
- E. Science (9 hours including at least one course with a substantial laboratory component)

¹Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. **Major Requirements, Lower Division: 3 hours**

LIT 2341 Literary Analysis

III. **Major Requirements, Upper Division: 42 hours**

Major Core Courses (6 hours)

HUMA 3300 Reading and Writing Texts²

LIT 3300 Western Literary Tradition

Major Distribution and Elective Courses (24 hours)

3 hours of upper-division courses from each of the following groups:

Literary genres

Literature before 1850

18 hours of upper-division Literary Studies electives

Major-Related Courses (12 hours)

Students may select any combination of upper-division courses from Art and Performance, Art History, Arts, Communications, Creative Writing, Dance, Drama, Film Studies, Historical Studies, Music and/or Philosophy.

²A required Major course that also fulfills a Core Curriculum requirement. If course is counted in the Core Curriculum, the student takes an additional 3 hours of elective credit.

IV. **Elective Requirements: 33 hours**

Advanced Electives (6 hours)

Students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division courses that have prerequisites.

Free Electives (27 hours)

Both upper- and lower-division courses may be used as electives, but students must complete at least 51 hours of upper-division credit to qualify for graduation.

Arts and Humanities (B.A.)

Students who complete the major in Arts and Humanities are familiar with the relationships among the liberal disciplines which comprise literary and historical studies and the visual and performing arts.

Since the catalog course descriptions are very general, students are urged to consult the detailed course descriptions available on the web site for the School of Arts and Humanities.

Bachelor of Arts in Arts and Humanities Degree Requirements (120 hours)

I. **Core Curriculum Requirements¹: 42 hours**

A. Communication (6 hours)

3 hours Communication (RHET 1302)

3 hours Communication Elective (HUMA 3300)

B. Social and Behavioral Sciences (15 hours)

6 hours Government (GOVT 2301 and 2302)

6 hours American History

3 hours Social and Behavioral Science Elective

C. Humanities and Fine Arts (6 hours)

- 3 hours Fine Arts (ARTS 1301)
- 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 3 hours College Math (MATH 1314 is recommended)
 - 3 hours Quantitative Mathematics (STAT 1342)
- E. Science (9 hours including at least one course with a substantial laboratory component)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements, Lower Division: 9 hours

One of the following:

- AHST 2331 Understanding Art
- DANC 1310 Understanding Dance
- DRAM 1310 Understanding Theater
- FILM 2332 Understanding Film
- MUSI 1306 Understanding Music
- LIT 2341 Literary Analysis
- PHIL 1301 Introduction to Philosophy or equivalent

III. Major Requirements, Upper Division: 42 hours

Major Core Courses (12 hours)

- AP 3300 Elements of Art and Performance
- HIST 3301 Historical Inquiry
- HUMA 3300 Reading and Writing Texts²
- LIT 3300 Western Literary Tradition

Major Distribution and Elective Courses (27 hours)

- Art and Performance (9 hours)
 - One upper-division course from Historical Context courses
 - Two upper-division courses from Studio and Ensemble courses
- Historical Studies (9 hours)
 - One upper-division course from each of the following groups:
 - European Historical Studies
 - Asian, African, and Latin American Historical Studies
 - Studies in Philosophy and Intellectual History
- Literary Studies (9 hours)
 - One upper-division course from each of the following groups:
 - Literary genres
 - Literature before 1850
 - LIT elective
- Arts and Humanities Elective (3 hours)
 - Any upper-division course from the School of Arts and Humanities

²A required Major course that also fulfills a Core Curriculum requirement. If the course is counted in the Core Curriculum, the student takes an additional 3 hours of elective credit.

IV. Elective Requirements: 27 hours

Advanced Electives (6 hours)

Students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division courses that have prerequisites.

Free Electives (21 hours)

Both upper- and lower-division courses may be used as electives, but students must complete at least 51 hours of upper-division credit to qualify for graduation.

Arts and Technology (B.A.)

Students who complete the major in Arts and Technology receive a thorough grounding in the mutually productive interaction of technology with the arts, with specific emphasis on the interplay of visual art, music, and narrative with the new modes of expression and communication that have emerged from the convergence of computing and media technologies. The program stresses not only the creation but also the potential applications and cultural implications of interactive media. A student majoring in Arts and Technology will be required to channel selected coursework according to individual needs and specialties. Particular attention should be given to the Prescribed Electives for the major, and close consultation with academic advisors is recommended. By selecting courses from a variety of the remaining elective headings, students are able to combine courses in technology and fine arts with course work in literary criticism and interpretation, creative writing and translation, and linguistics and languages.

Unless otherwise noted, courses in Arts and Technology are open to all students in the university. However, students majoring in Arts and Technology may be given preference in certain course enrollments.

Bachelor of Arts in Arts and Technology Degree Requirements (120 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (ATEC 3320 or ATEC 3325)
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Science Elective
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (FILM 2332)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 3 hours College Math (MATH 1314 is recommended)
 - 3 hours Quantitative Mathematics (STAT 1342)
- E. Science (9 hours including at least one course with a substantial laboratory component)

¹Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements, Lower Division: 21 hours

- ARTS 1316 Drawing Foundations
- ARTS 2380 2D Design Foundations
- ATEC 2320 Introductory Topics in Arts and Technology
- ATEC 2382 Computer Imaging
- ATEC 2384 Basic Design Principles and Practices
- CS 1337 Computer Science I
- CS 2336 Computer Science II

III. Major Requirements, Upper Division: 21 hours

- ARTS 3371 Black and White Photography
 - or ARTS 3372 Color Photography
 - or ARTS 3374 Technical Photography
 - or ARTS 3377 Digital Photography
 - ATEC 3317 3D Modeling for Computer Animation
 - ATEC 4340 Business and the Digital Arts
 - ATEC 4380 Capstone Project
 - CS 3333 Data Structures
-

- or* CS 3335 C and C++
- or* CS 3375 Principles of UNIX
- or* CS 4336 Advanced Java
- HIST 3337 Technology and Western Civilization
- or* HIST 3374 American Technological Development
- LIT 3334 Literature of Science
- or* LIT 3311 The Literature of Science Fiction and Fantasy
- or* HIST 3328 History and Philosophy of Science and Medicine

IV. Elective Requirements: 36 hours

Prescribed Electives (15 hours)

Any five of the following:

- AHST 3318 Contemporary Art
- ATEC 3327 Digital Lighting and Texturing for Computer Animation
- ATEC 3330 Digital Video Production
- ATEC 3351 Computer Game Development
- ATEC 3352 Computer Game Design
- ATEC 3361 Internet Studio
- or* ATEC 3363 Basic Interaction Design
- ATEC 3365 Virtual Environments
- ATEC 4337 Computer Animation
- ATEC 4345 Motion Capture Animation
- ATEC 4346 Story-Telling for New Media
- ATEC 4347 Advanced Design
- ATEC 4348 Advanced 3D Modeling
- ATEC 4349 Advanced Lighting and Texturing
- ATEC 4357 Advanced Digital Arts
- ATEC 4367 Advanced Computer Game Development
- ATEC 4370 Topics in Arts and Technology
- ATEC 4371 Topics in Animation
- ATEC 4373 Topics in Game Development
- ATEC 4374 Topics in Digital Design
- ATEC 4375 Topics in Sound Design
- MUSI 3389 Digital Music II

Advanced Electives (6 hours)

Students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division courses that have prerequisites.

Free Electives (15 hours)

Both upper- and lower-division courses may be used as electives, but students must complete at least 51 hours of upper-division credit to qualify for graduation.

School of Behavioral and Brain Sciences

The School of Behavioral and Brain Sciences at The University of Texas at Dallas offers degrees in Child Learning and Development; Cognitive Science; Neuroscience; Psychology; and Speech-Language Pathology and Audiology. The ***Child Learning and Development*** program provides students a research-based approach to understanding child development as a preparation for careers as teachers, researchers, service providers, and policy makers. The ***Cognitive Science*** program provides a multidisciplinary approach to the study of the mind and behavior that incorporates methodology from the fields of philosophy, psychology, neuroscience, and computer science. The ***Neuroscience*** program provides students the opportunity to study the nervous system from a multidisciplinary approach that combines the study of brain structure, biochemistry, and physiology, and their links to behavior. The ***Psychology*** program provides basic training in the study of mind and behavior as preparation for graduate training in psychology, counseling and related fields, as well as providing courses which may be relevant to employment in human resources or research support positions. The ***Speech-Language Pathology and Audiology*** program offers study in the processes and disorders of speech, language and hearing. The program provides the foundation for graduate work leading to careers as a speech-language pathologist or audiologist. Students meeting B.S. degree and clinical practicum requirements are eligible for Texas state licensure as a speech-language pathology assistant.

The School of Behavioral and Brain Sciences offers a number of services and programs for students. Contact the Associate Dean's office for more information. The school provides ***Advising and Mentoring***, including professional Academic and Career Advising along with Faculty and Peer Mentors. The ***Career Paths Program*** helps students establish their own career paths. It integrates career exploration, individualized career planning, internships, preparation for graduate school and post-graduation placement. Students should sign up for the program in the Associate Dean's office and watch for scheduled talks, workshops and fairs. The school ***Internship Placement Program*** is open to all students who have reached junior or senior standing (more than 53 hours). Students earn course credit for working 8 hours per week at an approved community agency of their choice. The program has over 70 established placement sites. Students keep daily job diaries, attend one class meeting per month, and write brief papers relevant to their experiences.

The School Honors Program in the School of Behavioral and Brain Sciences provides eligible students with opportunities for in-depth experience in research and writing while working individually with members of the faculty. These opportunities enhance preparation for graduate school and employment in the student's chosen field. To earn BBS School Honors, students must graduate with (a) at least 30 graded hours at UTD, (b) at least 12 hours in Psychology major core courses, (c) have an overall UTD GPA of 3.40 or better, (d) pass the Honors Seminar (which is currently taught only in the spring semester), and (e) complete an honors thesis with a grade of at least B+. School Honors with Distinction will be awarded to students whose thesis is judged by a faculty committee to be of exemplary quality. Students apply for admission to the program in the Associate Dean's office after completing at least 15 semester credit hours at UTD, including two major core courses, with a GPA of at least 3.40.

Faculty

Professors: Hervé Abdi, Peter F. Assmann, James C. Bartlett, Thomas G.R. Bower, Duane Buhrmester, Thomas Campbell, Sandra Chapman, J. Michael Coleman, Christine Dollaghan, W. Jay Dowling, George M. Gerken, (Emeritus) Richard M. Golden, John Hart, Susan W. Jerger, William F. Katz, Aage R. Møller, Bert S. Moore, Alice J. O'Toole, Margaret T. Owen, Denise C. Park, Karen Prager, Ross J. Roeser, John W. Santrock, Melanie J. Spence, Robert D. Stillman, Linda Thibodeau, Emily Tobey, Hanna Ulatowska, Marion Underwood, Anne van Kleeck, Deborah Weibe

Associate Professors: Marco Atzori, Lawrence J. Cauller, William F. Katz, Michael Kilgard, Daniel Krwczyk, Teresa Nezworski, Pamela Rollins, Bart Rypma, Lucien T. Thompson,

Assistant Professors: Shayla Holub, Daniel Krwczyk, Jeffrey S. Martin, Mandy McGuire, Christa McIntyre, Candice Mills

Clinical Lecturers: Michelle Aldridge, Cheryl L. Bryant, Lucinda Dean, Mary Dodd, Sara Haynes, Karen Kaplan, Helen Kenedi, Janice Lougeay, Carolyn Musket, Felicity Sale

Distinguished Scholar in Residence: James Jerger

Senior Lecturer: Betty G. Edelman, Matthew Housson, Karen Huxtable-Jester, Nancy Juhn, Toosje Vanbeveren

Child Learning and Development (B.S.)

Providing better ways to foster the intellectual and emotional development of all of our children is a national priority. As such, well-educated university graduates are needed to go on to become expert child development practitioners and researchers. Over the last 60 years, the academic disciplines of developmental psychology and child development have accumulated a vast body of

research-based knowledge about the factors that promote optimal child learning, development and well-being, as well as those that contribute to disadvantaged child development. The Child Learning and Development major provides undergraduate students a rigorous science-based curriculum that immerses them in the theories, findings, research methods, and best-practices that the scientific study of child development has to offer.

The Child Learning and Development major focuses on the fundamental processes of child and adolescent development within the contexts of families, schools, peer groups, and larger cultural milieu. Its three objectives are to provide students with a strong foundation in 1) cognitive, language, and socio-emotional development, 2) research skills for conducting scientific studies and evaluating applied programs, and 3) translating scientific findings into practical applications for understanding and improving children's lives. Opportunities for supervised and independent research, as well as field placements that involve working with children, families, schools, and social services, are provided in addition to formal work.

The Child Learning and Development major prepares students for a wide range of careers in education, psychology, social work, family medicine, public health, family law, and public policy. The major is especially well suited for students seeking elementary teacher certification (early childhood – 6th grade) through UTD's Teacher Development Center. By combining a major in Child Learning and Development with elementary teacher certification, students will develop a strong foundation in child development and teaching. Elementary Teacher Certification requires a minimum of 45 additional hours of course work that can be completed within the free elective hours of the Child Learning and Development major. If you are interested in this combined child development/education program (called CLD/EC6), see an advisor to develop a degree plan.

Bachelor of Science in Child Learning and Development Degree Requirements (120 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (CLDP 3394)²
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Science Elective (PSY 2301)²
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (recommend ARTS 1301)
 - 3 hours Humanities (recommend HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 3 hours College Math (recommend MATH 1306, 1314 or 2417)
 - 3 hours Quantitative Methods or Math (PSY 2317)²
- E. Science (9 hours)
 - 3 hours Science (recommend NSC 3361 or CGS 2301)
 - 6 hours Science Electives (including at least one course with a substantial laboratory component)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements: 37 hours including at least 30 upper-division hours of required and guided elective courses in the major (28 hours beyond Core Curriculum)

- Major Preparatory Courses: 6 hours
 - PSY 2301 Introduction to Psychology² (also satisfies 3 hours part B of Core Curriculum)
 - PSY 2317 Statistics for Psychology²
 - or STAT 1342 Statistical Decision Making² (also satisfies 3 hours part D of Core Curriculum)
- Major Core Courses: 21 hours
 - CLDP 3194 Research and Evaluation Laboratory (taken with CLDP 3394)
 - CLDP 3303 Normal Language Development
 - CLDP 3310 Child Development
 - or CLDP 3339 Educational Psychology

or CLDP 4334 Lifespan Development
 CLDP 3332 Social and Personality Development
 CLDP 3342 Exceptional Children
 or CLDP 4344 Child Psychopathology
 CLDP 3362 Cognitive Development
 or CLDP 3365 Child Learning
 CLDP 3394 Research and Evaluation Methods² (also satisfies 3 hours part A of Core Curriculum)
 CLDP 4394 Internship
 or CLDP 4395 Co-op Fieldwork
 or CLDP 4397 Honors Thesis
 or CLDP 4V98 Directed Research

Major Guided Electives (9 hours)

Any 9 hours of courses with CLDP prefix or any of the following courses: CGS 2301, CGS 3342, CGS 4312, CGS 4313, CGS 4314, CGS 4315, CGS 4352, CGS 4353, ED 4352, ED 4355, ED 4357, NSC 3345, NSC 4352, NSC 4353, NSC 4354, NSC 4367, PSY 3331, PSY 3333, PSY 3361, PSY 4331, PSY 4343, PSY 4362, PSY 4364, PSY 4373, SPAU 3301, SPAU 3304, SPAU 3340, SPAU 3343, SPAU 3344, SPAU 3345 or SPAU 4308.

² A required Major course that also fulfills a Core Curriculum requirement.

III. **Elective Requirements: 50 hours**

Advanced Electives (6 hours):

Six hours of upper-division courses which do not have a CLDP prefix.

Free Electives (44 hours)

Students are encouraged to explore areas of concentration in Child Learning and Development as well as explore interests outside the field. Be aware that at least 51 hours of upper division credit hours are required for graduation.

Minor in Child Learning and Development

This minor is well suited for students pursuing Elementary Teacher certification and for those generally interested in the psychological development of children. Students must complete 18 credit hours including 9 required hours of foundation coursework and 9 credit hours of guided electives. At least 12 hours must be upper-division courses, of which at least 9 hours must have been completed at UTD. Students majoring in Psychology or Speech-Language Pathology and Audiology may minor in Child Learning and Development provided that no course is used to satisfy both major and minor requirements.

Foundation Courses (9 hours required)

PSY 3310 Child Development
 or PSY 3339 Educational Psychology¹
 or PSY 4334 Lifespan Development*¹

PSY 3332 Social and Personality Development

PSY 3362 Cognitive Development

Guided Electives Courses (select 9 hours)

PSY 3342 Exceptional Children¹

PSY 4344 Child Psychopathology

PSY 4373 Psychological Assessment

PSY 4394 Internship in Psychology

or ED 4693 Student Teaching Grades EC - 6¹ (approval of Associate Dean required)

SPAU 3303 Normal Language Development¹

SPAU 4308 Language Disorders in Children

Other courses as approved by the Associate Dean

*PSY majors take an additional 3 hours of guided electives to replace PSY 3310 or PSY 4334.

¹ Required for EC-4 Teacher Certification.

Cognitive Science (B.S.)

Cognitive science is the study of complex information processing in humans and machines and includes the multidisciplinary study of biological and artificial systems. The field of cognitive science draws from diverse approaches to understanding these processes, including research from experimental psychology, neuroscience, linguistics, computer science, mathematics, and engineering. Cognitive scientists believe that the design of artificially intelligent computer systems can benefit from a better understanding of human psychology and neuroscience. Likewise, our understanding of human thought and behavior can be informed by a better understanding of work in the area of artificial intelligence, computer science, and mathematical modeling. In addition to providing a sound preparation for graduate work in Cognitive Science and related areas, the Cognitive Science major is an ideal choice for students pursuing careers that combine interests in neuroscience, cognition, mathematics, and computer science. There are exciting career prospects in both industry and academics. For example, the Human Computer Interaction specialization area provides students with a unique set of skills in both software engineering and behavioral science research methods that can prepare students for careers involving the evaluation and design of user-friendly software interfaces. The Intelligent Systems specialization area provides students with a unique background in mathematical modeling, computer programming, psychology, and neuroscience which can prepare students for careers associated with the development and implementation of intelligent systems (e.g., web search engine design, speech recognition technology, computer vision, and computer games).

Students can complete Core Curriculum and Cognitive Science major requirements in a minimum of 78 semester credit hours, leaving 42 elective hours.

Bachelor of Science in Cognitive Science Degree Requirements (120 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (CGS 3340 or PSY 3393)²
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Science Elective (PSY 2301)²
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 6 hours Calculus (MATH 2417 and 2419)³
- E. Science (9 hours)
 - 6 hours Science (NSC 3361 and CGS 2301)²
 - 3 hours Science Electives (including at least one course with a substantial laboratory component)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements: 57 hours (39 hours beyond Core Curriculum)

Major Preparatory Courses: 27 hours

All of the following:

- CGS 2301 Cognitive Science² (also satisfies 3 hours part E of Core Curriculum)
- CS 1337 Computer Science I
- CS 2305 Discrete Mathematics for Computing I
- MATH 2417 Calculus I ³ (also satisfies 3 hours part D of Core Curriculum)
- MATH 2418 Linear Algebra
- MATH 2419 Calculus II ³ (also satisfies 3 hours part D of Core Curriculum)
- PSY 2301 Introduction to Psychology ² (also satisfies 3 hours part B of Core Curriculum)
- PSY 2317 Statistics for Psychology

or CS/SE 3341 Probability and Statistics in Computer Science and Software Engineering
 or EE 3341 Probability Theory and Statistics
 or STAT 4351 Probability

Major Core Courses: 18 hours

All of the following:

CGS 3325 Historical Perspectives on Psychology: Mind and Machines Since 1600

CGS 3361 Cognitive Psychology

CGS 4312 Computational Models of Language Understanding

or CGS 3342 Cognitive and Neural Modeling Laboratory

or CS 4365 Artificial Intelligence

NSC 3361 Behavioral Neuroscience² (also satisfies 3 hours part E of Core Curriculum)

PSY 3392 Research Design and Analysis

CGS 3340 Empirical Methods in Cognitive Science²

or PSY 3393 Experimental Projects in Psychology² (also satisfies 3 hours part A of Core Curriculum)

Major Related Electives (12 hours)

Students majoring in Cognitive Science must complete 12 additional hours of elective Cognitive Science coursework associated with a particular specialization area. The specialization areas listed in the Specializations section serve as examples of possible concentrations. Other specialization areas are permissible with the approval of the Program Head of the Cognitive Science program.

² A required Major course that also fulfills a Core Curriculum requirement.

³ Six hours of Calculus are counted to fulfill the Mathematics Core Requirement.

III. **Elective Requirements: 42 hours**

Advanced Electives:

Six hours of upper-division courses which do not have a CGS prefix.

Free Electives (36 hours)

Students are encouraged to explore areas of concentration in Cognitive Science as well as explore interests outside the field. Be aware that at least 51 hours of upper division credit hours are required for graduation.

Specialization Areas

Human Computer Interaction

Students specializing in the Human Computer Interaction area obtain skills in designing behavioral and computer software engineering. This area provides excellent preparation for careers associated with the design, software implementation, and evaluation of user-friendly software interfaces. The Human Computer Interaction specialization area has a *Behavioral Science Track* and a *User-Interface Development Track*.

Behavioral Science Track

Students electing this option should take at least two of the following courses:

PSY 3362 Cognitive Development

PSY 4362 Perception

PSY 4364 Attention and Memory

PSY 4374 Judgment and Decision Making

And take at least two of the following courses:

CGS 4352 Human Computer Interactions I

CGS 4353 Human Computer Interactions II

CGS 4355 Human Computer Interactions Lab

User-Interface Track

Students electing this option should take:

CS 3333 Data Structures

CS 3354 Software Engineering

And take at least two of the following courses:

CGS 4352 Human Computer Interactions I

CGS 4353 Human Computer Interactions II
CGS 4355 Human Computer Interactions Lab

Intelligent Systems

Students specializing in the Intelligent Systems area obtain skills in computer programming, mathematical modeling, and intelligent system design and evaluation. This area provides excellent preparation for careers associated with the design, software implementation, and evaluation of intelligent systems. Intelligent systems arise in such diverse areas as the development of web-based intelligent search engines, speech recognition, robotics, pattern recognition, and computer vision. All students electing this option should take the following courses during their freshmen and sophomore years:

CS 2336 Computer Science II
CS 3305 Discrete Mathematics for Computing II
MATH 2418 Linear Algebra
MATH 2419 Calculus II

Students in the Intelligent Systems specialization area have the option of selecting either the *Mathematical Modeling Track* or the *Computer Simulation Modeling Track*.

Mathematical Modeling Track

CGS 4313 Neural Net Mathematics
CGS 4314 Intelligent Systems Analysis
CGS 4315 Intelligent Systems Design
MATH 2451 Multivariable Calculus with Applications
STAT 4351 Probability (or CS/EE/SE 3341)

Computer Simulation Modeling Track

All students in this track should take:

CS 3345 Data Structures and Introduction to Algorithmic Analysis

And three of the following courses:

CGS 3342 Cognitive and Neural Modeling Laboratory
CGS 4312 Computational Models of Language Understanding
CS 4365 Artificial Intelligence
CS 4391 Introduction to Computer Vision

Cognition and Neuroscience

The Cognition and Neuroscience specialization provides a multidisciplinary program for preparing students to pursue graduate work in the areas of cognitive psychology and neuroscience. Students electing this option should take at least two neuroscience courses from the following list:

CGS 4359 Cognitive Neuroscience
NSC 4352 Cellular Neuroscience
NSC 4353 Neuroscience Laboratory Methods
NSC 4354 Integrative Neuroscience
NSC 4355 Advanced Neuroscience Laboratory
NSC 4363 Neuropharmacology
NSC 4366 Neuroanatomy
NSC 4367 Developmental Neurobiology
NSC 4368 Computational Neuroscience

and at least two of the following psychology courses:

PSY 3362 Cognitive Development
PSY 4362 Perception
PSY 4364 Attention and Memory
PSY 4374 Judgment and Decision Making

Language and Speech

The Language and Speech specialization provides a multidisciplinary program for preparing students to pursue graduate work in areas such as language and communications disorders. Students electing this option should select at least four courses from the following list.

- LIT 3330 Linguistics
- SPAU 3303 Normal Language Development
- SPAU 3304 Communication Sciences
- SPAU 3343 Phonetics
- SPAU 3344 Anatomy and Physiology of Speech and Hearing
- SPAU 3345 Neural Basis of Communication

Additional Advanced Major Related CGS Electives

All School of Behavioral and Brain Science courses with a PSY (Psychology) or NSC (Neuroscience) prefix are approved CGS electives. In addition, advanced CGS students in good academic standing may request permission from the Cognitive Science Program Head to take graduate Applied Cognition and Neuroscience coursework (CAN prefix) to fulfill the CGS elective course requirements.

In addition, the following advanced electives are associated with all specialization areas. Approval from a Cognitive Science Faculty Advisor is required in order to take these electives.

- CGS 4V90 Special Topics in Cognitive Science
- CGS 4394 Internship in Cognitive Science
- CGS 4397 Honors Thesis
- CGS 4V98 Directed Research
- CGS 4V99 Individual Study

Minor in Cognitive Science

Students who are not majoring in Cognitive Science may minor in Cognitive Science by completing 18 semester credit hours. At least 12 of the 18 semester credit hours required by the minor in Cognitive Science must be upper-division courses. In addition, 9 of the 18 semester credit hours required for the minor in Cognitive Science must have a Cognitive Science (CGS) prefix and be upper-division courses. No credit hours may be used to satisfy both major and minor requirements; however, free elective hours or major preparatory classes may be used to satisfy the minor. At least one-third of the hours for a minor must be taken at U.T. Dallas. The following two specialization areas provide examples of possible course sequences which satisfy the requirements of the minor in Cognitive Science.

Intelligent Systems Specialization Area in Mathematical Modeling. Students with an Electrical Engineering or Mathematics background who have taken linear algebra, multivariable calculus, and probability theory and are interested in careers associated with the design, software implementation, and testing of intelligent systems should take CGS 4313 Neural Net Mathematics, CGS 3342 Cognitive and Neural Modeling Laboratory, CGS 4314 Intelligent Systems Analysis, and CGS 4315 Intelligent Systems Design.

Human Computer Interactions Specialization Area in User-Interface Development. Students with a Computer Science background who have taken CS 3354 Software Engineering and who are interested in careers associated with the design, software implementation, and testing of user-friendly computer interfaces should take the course CGS 3361 Cognitive Psychology; take two of the following courses: CGS 4352 Human Computer Interactions I, CGS 4353 Human Computer Interactions II, and CGS 4355 Human Computer Interactions Lab; and one of the following courses: CGS 4362 Perception, and CGS 4364 Attention and Memory, and PSY 4374 Judgment and Decision Making.

Fast Track Baccalaureate/Master's Degrees

U.T. Dallas undergraduate students with strong academic records who intend to pursue a master's degree in Applied Cognition and Neuroscience at UTD may consider an accelerated undergraduate-graduate plan of study. When accepted into the program, students may take up to 12 hours of graduate courses that may be used to complete the bachelor's degree and also to satisfy

requirements for the Master's degree. Students must maintain a 3.00 grade point average and earn grades of B or better in the graduate courses taken. The Fast Track makes it possible for students to complete upper-division undergraduate education and graduate training in three years. To qualify for application, students must have completed at least 72 semester credit hours toward their bachelor degree, including at least 18 semester credit hours in major core courses at UTD. Apply to the Fast Track program through the Cognitive Science Program Office. Students should consult with a graduate advisor regarding admissions criteria and plans of study at the beginning of their junior year.

Neuroscience (B.S.)

Neuroscience is the multidisciplinary study of brain function that draws on recent advances in cell and molecular biology, biochemistry, biophysics, and computer and cognitive sciences. It examines the brain's global and nanoscale biochemistry, its complex and extensively networked anatomical structure, and its remarkably adaptive physiology. The field considers neuronal development from early embryology through advanced senescence, and examines the brain's plasticity from the level of single neurons, through networks and systems of cells, on up to complete organisms. It studies the regulation and expression of behavior, and the complex interactions of multiple neuronal systems that underlie the emergence of cognitive function. The Neuroscience program at U. T. Dallas provides students with the opportunity to focus on the brain from a systems-level perspective, drawing on behavioral and cognitive expertise combined with cellular and molecular perspectives. It allows undergraduates extensive interactions with working neuroscientists who use the latest experimental techniques.

The Neuroscience program is designed to prepare students for admission to graduate or medical school, or for careers in related biomedical research, industry, and allied health science fields. Required courses and guided electives can include the approved pre-medical curriculum and offer an alternative to other traditional pre-medical majors. Students who wish to continue their education in the fields of medicine, dentistry or allied professional areas should register with the Health Professions Advisory Committee during their first semester. Students are encouraged to design a personalized degree plan of guided electives with their advisor that combines courses from the neurosciences and related disciplines of mathematics, physics, chemistry, biology, engineering, computer science, psychology, and speech pathology and audiology in a way that will suit their individual interests and goals. Students are also encouraged to gain research experience as part of their undergraduate training in Neuroscience.

Students can complete Core Curriculum and Neuroscience major requirements in a minimum of 85 semester credit hours, leaving 35 elective hours. Students can complete Core Curriculum, Neuroscience major, and Pre-health Professions requirements in a minimum of 111 semester credit hours, leaving 9 remaining elective hours.

Bachelor of Science in Neuroscience Degree Requirements (120 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (NSC 4353)²
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Science Elective (PSY 2301)²
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 3 hrs College Math (MATH 2414 or MATH 2417)²
 - 3 hrs Quantitative Methods (PSY 2317 or STAT 1342)²
- E. Science (9 hours)
 - 9 hrs Science (CHEM 1311 and CHEM 1111, BIOL 2311 and BIOL 2281)²

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements: 64 hours (43 hours beyond Core Curriculum)

Major Preparatory Courses: 24 hours

All of the following:

- BIOL 2281 Introductory Biology Laboratory² (also satisfies 3 hours part E of Core Curriculum)
- BIOL 2311/2111 Introduction to Modern Biology I ² with Workshop
- CHEM 1311/1111 General Chemistry I with Laboratory² (also satisfies 3 hours part E of Core Curriculum)
- CHEM 1312/1112 General Chemistry II with Laboratory
- MATH 2414 Integral Calculus
 - or MATH 2417 Calculus I² (also satisfies 3 hours part D of Core Curriculum)
- PSY 2301 Introduction to Psychology² (also satisfies 3 hours part B of Core Curriculum)
- PSY 2317 Statistics for Psychology²
 - or STAT 1342 Statistical Decision Making² (also satisfies 3 hours part D of Core Curriculum)

Major Core Courses: 25 hours

All of the following:

- NSC 3361 Behavioral Neuroscience
- NSC 4066 Neuroanatomy Workshop
- NSC 4352 Cellular Neuroscience
- NSC 4353 Neuroscience Laboratory Methods² (also satisfies 3 hours part A of Core Curriculum)
- NSC 4354 Integrative Neuroscience
- NSC 4356 Neurophysiology
- NSC 4363 Neuropharmacology
- NSC 4366 Neuroanatomy
- NSC 4367 Developmental Neurobiology

Major Related Courses: 15 hours (15 hours beyond the Core Curriculum)

Advanced Guided Electives. 15 semester hours from the following. Consultation with an advisor is required.

- BIOL 3301 Classical and Molecular Genetics
- BIOL 3302 Eukaryotic Molecular and Cell Biology
- BIOL 3361 Biochemistry I
- BIOL 3362 Biochemistry II
- BIOL 3455 Human Anatomy and Physiology w/ Lab I
- BIOL 3456 Human Anatomy and Physiology w/ Lab II
- CGS 4312 Computational Models of Language Understanding
- MATH 2413 Differential Calculus
- NSC 3344 Anatomy and Physiology of Speech and Hearing
- NSC 3345 Neural Basis of Communication
- NSC 4355 Advanced Neuroscience Laboratory
- NSC 4357 Neurobiology of Learning
- NSC 4358 Neurobiology of Sensation and Perception
- NSC 4368 Computational Neuroscience
- NSC 4359 Cognitive Neuroscience
- NSC 4370 Neuroendocrinology
- NSC 4372 Neuroimmunology
- NSC 4374 Neural Plasticity in Neuropathologies
- NSC 4375 Honors Seminar
- NSC 4376 Stress and the Nervous System
- NSC 4394 Internship in Neuroscience
- NSC 4397 Honors Thesis
- NSC 4V90 Special Topics in Neuroscience
- NSC 4V98 Directed Research³
- NSC 4V99 Individual Study⁴
- PSY 4362 Perception
- SPAU 3304 Communication Sciences

² A required Major course that also fulfills a Core Curriculum requirement. Hours are counted in Core Curriculum.

³ May be repeated for credit, up to 9 hours.

⁴ May be repeated for credit, up to 6 hours.

III. Elective Requirements: 35 hours

Advanced Electives (6 hours)

Breadth Electives; 6 hours of upper-division courses, or lower-division courses that have prerequisites that are outside of Neuroscience.

Free Electives (29 hours)

At least 30 hours of lower- or upper-division courses of the student's choice. Students are encouraged to explore areas of concentration in Neuroscience as well as explore interests outside the field. Be aware that at least 51 hours of upper-division credit hours are required for graduation.

Premedical and/or other pre-health professions students: 27 hours

Students seeking to complete Pre-health Professions requirements should take the following as free electives:

Required pre-medical courses (12 hours):

- BIOL 2112 Introduction to Modern Biology II Workshop
- BIOL 2312 Introduction to Modern Biology II
- CHEM 2123 Introductory Organic Chemistry Laboratory I
- CHEM 2125 Introductory Organic Chemistry Laboratory II
- CHEM 2323 Introductory Organic Chemistry I
- CHEM 2325 Introductory Organic Chemistry II

Pre-med Advanced Biology requirement (6 hours, select 2 courses):

- BIOL 3301 Classic and Molecular Genetics
- BIOL 3302 Eukaryotic Molecular and Cell Biology
- BIOL 3361 Biochemistry I
- BIOL 3362 Biochemistry II

Pre-med Physics requirement (8 hours, select 2 courses):

- PHYS 1101 College Physics Laboratory I
- PHYS 1102 College Physics Laboratory II
- PHYS 1301 College Physics I *
- PHYS 1302 College Physics II *
- PHYS 2125 Physics Laboratory I
- PHYS 2126 Physics Laboratory II
- PHYS 3341 Physics for Bio Science I **
- PHYS 3342 Physics for Bio Science II **

* algebra based Physics courses

** calculus based Physics courses

Minor in Neuroscience

Students who are not majoring in Neuroscience may minor in Neuroscience by taking 18 semester credit hours selected from the lists of major core courses and major related courses. At least 12 hours must be upper-division Neuroscience core courses. No credit hours may be used to satisfy both major and minor requirements; however, free elective hours or major preparatory classes may be used to satisfy the minor. At least one-third of the hours for a minor must be taken at U.T. Dallas.

Fast Track Baccalaureate/Master's Degrees

U.T. Dallas undergraduate students with strong academic records who intend to pursue a master's degree in Applied Cognition and Neuroscience at UTD may consider an accelerated undergraduate-graduate plan of study. When accepted into the program, students may take up to 12 hours of graduate courses that may be used to complete the baccalaureate degree and also satisfy requirements for the master's degree. Students must maintain a 3.00 grade point average and earn grades of B or better in graduate courses taken. The Fast Track makes it possible for students to complete upper-division undergraduate education and graduate training in three years, including summer study. To qualify for application, students must have completed at least 72 semester credit hours toward their bachelor degree, including at least 18 semester credit hours in major core courses at UTD. Apply to the Fast Track program through the Applied Cognition and Neuroscience Program Office. Students should consult with a graduate advisor regarding admissions criteria and plans of study.

Psychology (B.A.)

William James characterized psychology as “the study of mental life.” Psychology is both a domain of scientific inquiry and a field of applied practice. The science of psychology is concerned with the study of how people perceive, learn, feel, think, develop, and interact with others. The practice of psychology helps people improve learning, performance, and mental health.

Undergraduate degrees in psychology provide students a number of career path options. Further study in graduate school leads to professional careers as clinical, counseling, industrial, academic and other kinds of psychologists. Psychology is also a useful major for students planning careers in law, management, medicine, or social work. A psychology major provides students with the knowledge about human behavior and methods of research and data analysis that is valuable in business, helping fields, and many other occupations.

The Psychology program at UTD approaches the field from a scientific perspective, applying behavioral science research methods to the study of the human mind and behavior. Thus, students will have laboratory experiences in addition to lectures, reading, and demonstrations. Psychology students learn to evaluate evidence relating to theories of social behavior, personality development, perception, memory, brain processes, and other facets of human experience. Students also gain hands-on experience through internship placements, directed research experiences in professor’s labs, and individualized study with faculty in specialized topics.

Selected courses are offered in a “conference” format (i.e., discussion seminar format), and students are encouraged to include some of these courses in their course of study. Conference courses are generally limited to an enrollment of 20, emphasize discussion of reading from primary sources, include written assignments with feedback from instructors, and are aimed at providing students with interactive experiences in critical thinking and writing.

The undergraduate degree awarded through the Psychology program is a bachelor of arts. Students may choose electives to obtain a broader grounding in psychology or a general education in the liberal arts. Students should note that it is possible to select clusters of electives that lead to particular concentrations in careers and graduate study. Students can complete Core Curriculum and Psychology major requirements in a minimum of 72 semester credit hours, leaving 48 elective hours

Bachelor of Arts in Psychology Degree Requirements (120 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (PSY 3393)²
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Science Elective (PSY 2301)²
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (recommend ARTS 1301)
 - 3 hours Humanities (recommend HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 3 hours College Math (recommend MATH 1306, 1314 or 2417)
 - 3 hours Quantitative Methods or Math (PSY 2317)²
- E. Science (9 hours with at least one lab course)
 - 3 hours Science (NSC 3361)²
 - 6 hours Science Elective (see PSY Advisor for options)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements: 42 hours including at least 30 upper-division hours of required and guided elective courses in the major (30 hours beyond the Core Curriculum)

Major Preparatory Courses

- PSY 2301 Introduction to Psychology² (also satisfies 3 hours part B of Core Curriculum)
 PSY 2317 Statistics for Psychology²
 or STAT 1342 Statistical Decision Making (also satisfies 3 hours part D of Core Curriculum)
- Major Core Courses (30 upper-division hours)
 NSC 3361 Behavioral Neuroscience²
 PSY 3360 Historical Perspectives on Psychology: Mind and Machines Since 1600
 PSY 3361 Cognitive Psychology
 or CGS 2301 Cognitive Science
 PSY 3392 Research Design & Analysis
 or PSY 3490 Accelerated Quantitative Methods
 PSY 3393 Experimental Projects in Psychology² (also satisfies 3 hours part A of Core Curriculum)
 PSY 4331 Personality
 or PSY 3331 Social Psychology
 PSY 4334 Lifespan Development
 or PSY 3310 Child Development
 PSY 4343 Abnormal Psychology
- Major Related Courses (12 hours)
 Advanced Guided Electives; 3 hours of one of the following:
 PSY 4394 Internship in Psychology
 PSY 4395 Co-op Fieldwork
 PSY 4V96 Teaching Internship
 PSY 4V97 Honors Thesis
 PSY 4V98 Directed Research
 PSY 4V99 Individual Study
- Plus any 9 hours of courses with PSY or CGS or NSC prefixes or the following SPAU courses: 3301, 3303, 3304, 3340, 3343, 3344, 3345 or 4308.

²A required Major course that also fulfills a Core Curriculum requirement. Hours are counted in Core Curriculum.

III. Elective Requirements: 48 hours III. Elective Requirements: 48 hours

Advanced Electives (6 hours) Advanced Electives (6 hours)

Breadth Electives; 6 hours of upper-division courses, or lower-division courses that have prerequisites, that are outside of Psychology (and not cross-listed with Psychology).

Free Electives (42 hours)

Courses of the student's choice. Students are encouraged to explore areas of concentration in Psychology as well as explore interests outside the field. Both lower- and upper-division courses may count as electives but students must be sure to complete at least 51 hours of upper-division courses to qualify for graduation.

Minor in Psychology

Students who are not majoring in Psychology may minor in Psychology by taking 18 semester credit hours selected from the lists of Psychology major core courses and major related courses (see Bachelor of Arts in Psychology, Degree Requirements – Major Core Courses and Major Related Courses lists are found within Numeral II, Major Requirements). At least 12 hours must be upper-division courses, of which at least 9 hours must be Psychology major core courses. No credit hours may be used to satisfy both major and minor requirements; however, free elective hours or major preparatory classes may be used to satisfy the minor. At least one-third of the hours for a minor must be taken at U.T. Dallas. Because Psychology is concerned with a wide range of social behaviors, it provides a strong foundation for all careers that deal with people. Students considering careers in business, education, law, medicine, clinical psychology, counseling or social work can benefit from minoring (or majoring) in psychology. The following courses are suggested preparation for each of these career paths.

Business Careers. Graduate schools of business look for students with a strong liberal arts background that focuses on both writing and quantitative skills. Suggested courses are Cognitive Psychology, Personality Psychology, Social Psychology, Psychology in the Workplace, Industrial and Organizational Psychology, Human Relations, and Research Design and Analysis.

Education Careers. Psychology courses are especially relevant for students pursuing careers in child development, educational psychology, education counseling, and school psychology. Suggested courses are Child or Lifespan Development, Cognitive Psychology, Educational Psychology, Cognitive Development, Exceptional Children, Social and Personality Development, Adolescent Psychology, Psychological Testing, Statistics for Psychology, and Research Design and Analysis.

Law and Crime and Justice Careers. A background in psychology can be enormously useful for the study and practice of law and law enforcement. Suggested courses are Forensic Psychology, Psychology and the Legal System, Lifespan Development, Cognitive Psychology, Judgement and Decision-Making, Personality Psychology, Social Psychology, Abnormal Psychology, Psychological Testing, Statistics for Psychology, and Research Design and Analysis.

Medical Careers. Psychology is highly recommended as a major or minor for premedical students interested in psychiatry or neurology, or any student who wishes to practice medicine. The intended area of medical specialization should influence choice of courses; for example, a future pediatrician would benefit from courses in developmental psychology. In general, suggested courses are Lifespan or Child Development, Behavioral Neuroscience, Health Psychology, Abnormal Psychology, Cognitive Psychology, Adolescent Psychology, Approaches to Clinical Psychology, Statistics for Psychology, and Research Design and Analysis.

Careers in Clinical Psychology, Counseling, or Social Work. All courses in psychology are good preparation for these careers. It is especially important that students take Lifespan Development, Behavioral Neuroscience, Cognitive Psychology, Personality Psychology, Abnormal Psychology, Statistics for Psychology, and Research Design and Analysis. Other courses of interest include Approaches to Clinical Psychology, Social Communication, Human Relations, Health Psychology, Psychological Testing, Child Psychopathology, and Violence in the Family.

Fast Track Baccalaureate/Master's Degrees

U.T. Dallas undergraduate students with strong academic records who intend to pursue a master's degree in Human Development and Early Childhood Disorders or in Applied Cognition and Neuroscience at U.T. Dallas may consider an accelerated undergraduate-graduate plan of study. When accepted into the program, students may take up to 12 hours of graduate courses that may be used to complete the baccalaureate degree and also to satisfy requirements for the master's degree. Students must maintain a 3.00 grade point average and earn grades of B or better in graduate courses taken. The Fast Track makes it possible for students to complete upper-division undergraduate education and graduate training in three years, including summer study. To qualify for application, students must have completed at least 72 semester credit hours toward their bachelor degree, including at least 18 semester credit hours in major core courses at UTD. Apply to the Fast Track program through the Human Development and Early Childhood Disorders or Applied Cognition and Neuroscience Program Offices. Students should consult with a graduate advisor regarding admissions criteria and plans of study.

Speech-Language Pathology and Audiology (B.S.)

The Speech-Language Pathology and Audiology program offers study in the processes and disorders of speech, language, and hearing. The program provides the foundation for graduate study leading to career opportunities and clinical certification as a speech-language pathologist or audiologist. Students completing the B.S. degree and required clock hours of clinical practicum are also eligible for Texas state licensure as a speech-language pathology assistant. The curriculum in Speech-Language Pathology and Audiology focuses on the development of communicative abilities; the anatomical and physiological mechanisms underlying speech, language, and hearing; the causes of communication disorders in children and adults; and theories and techniques of assessment and treatment of communication disorders. Supervised clinical practicum provides students experience in clinical assessment and intervention with persons having communication impairments.

Students majoring in Speech-Language Pathology and Audiology are strongly encouraged to select electives in Psychology to complement course work in their major field. PSY 3361 Cognitive Psychology, PSY 4334 Lifespan Development, and NSC 3361 Behavioral Neuroscience are especially relevant for Speech-Language Pathology and Audiology majors. Suggested electives in the major include SPAU 3390 Clinical Practicum in Speech-Language Pathology (may be taken twice for credit), SPAU 4325/PSY 3342 Exceptional Children, SPAU 4342 Assessment Procedures in Speech-Language Pathology, and SPAU 4395 Issues in the Management of Persons with Hearing Impairment.

Students who wish to combine Speech-Language Pathology and Audiology with Psychology or Neuroscience should be able to meet requirements in both majors, and, with the approval of the Associate Dean, complete a double major. Students considering a double major should consult with their advisor regarding specific requirements. Students can complete Core Curriculum and Speech-Language Pathology and Audiology major requirements in a minimum of 78 semester credit hours, leaving 42 elective hours.

Bachelor of Science in Speech-Language Pathology and Audiology Degree Requirements (120 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (SPAU 3390)²
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Science Elective (PSY 2301)²
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 3 hours College Math (see Advisor for recommended courses)
 - 3 hours Quantitative Methods (see Advisor for recommended courses)
- E. Science (9 hours with at least one lab course)
 - 3 hours Science (SPAU 3344)²
 - 6 hours Science Elective (Students planning to attend graduate school in speech-language pathology or audiology should take a minimum of one course in the biological sciences and one course in the physical sciences. See Advisor for options.)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements: 42 hours (33 hours beyond the Core Curriculum)

Major Preparatory Courses

PSY 2301 Introduction to Psychology² (also satisfies 3 hours part B of Core Curriculum)

Major Core Courses (39 hours)

SPAU 3301 Communication Disorders

SPAU 3303 Normal Language Development

SPAU 3304 Communication Sciences

SPAU 3340 Articulation Disorders

SPAU 3341 Audiology

SPAU 3343 Phonetics

SPAU 3344 Anatomy and Physiology of Speech and Hearing² (also satisfies 3 hours part E of Core Curriculum)

SPAU 3345 Neural Basis of Communication

or NSC 3361 Behavioral Neuroscience

SPAU 3388 Clinical Observation in Speech-Language Pathology (3 semester hrs)

SPAU 3390 Clinical Practicum in Speech-Language Pathology (3 semester hrs)² (also satisfies 3 hours part A of Core Curriculum)

SPAU 4308 Language Disorders in Children

SPAU 4394 Multicultural Aspects of Communication Disorders

or SPAU 4393 Language in Culture and Society

SPAU elective (3 hours of course with SPAU prefix)

² A required Major course that also fulfills a Core Curriculum requirement. Three hours are counted in Core Curriculum.

III. Elective Requirements: 45 hours

Advanced Electives (6 hours)

Breadth Electives: 6 hours of upper-division courses, or lower-division courses that have prerequisites that are outside of Speech-Language Pathology and Audiology.

Free Electives (39 hours)

At least 39 hours of lower- or upper-division courses of the student's choice. Students are encouraged to explore areas of concentration in Speech-Language Pathology and Audiology as well as explore interests outside the field. At least 51 hours of upper-division credit hours are required for graduation.

Minor in Speech-Language Pathology and Audiology

Students interested in communication sciences and disorders may elect to minor in Speech-Language Pathology and Audiology. Students complete 18 credit hours including 12 required hours of foundation coursework and 6 elective hours. Foundation coursework in conjunction with elective hours permits students to choose to emphasize hearing science/audiology, language development and disorders, or speech production and perception. Students majoring in Psychology, Neuroscience, or Cognitive Science, or students with interests in the health sciences may find that a minor in Speech-Language Pathology and Audiology adds a valuable interdisciplinary dimension to their overall plan of study and may enhance their opportunities for graduate study. No credit hours may be used to satisfy both major and minor requirements; however, free elective hours or major preparatory classes may be used to satisfy the minor. At least one-third of the hours for a minor must be taken at U.T. Dallas.

Foundation Courses (12 hours required)

SPAU 3301 Communication Disorders

SPAU 3303 Normal Language Development

SPAU 3304 Communication Sciences

SPAU 3343 Phonetics

Elective Courses (select 6 hours)

SPAU 3340 Articulation Disorders

SPAU 3341 Audiology

SPAU 3344 Anatomy and Physiology of Speech and Hearing

SPAU 3388 Clinical Observation in Speech-Language Pathology

SPAU 3390 Clinical Practicum in Speech-Language Pathology

SPAU 4308 Language Disorders in Children

SPAU 4393 Language in Culture and Society

SPAU 4395 Issues in the Management of Persons with Hearing-Impairment

Fast Track Baccalaureate/Master's Degrees

U.T. Dallas undergraduate students with strong academic records who intend to pursue a master's degree in Communication Disorders at the University may consider an accelerated undergraduate-graduate plan of study. When accepted into the program, students may take up to 12 hours of graduate courses that may be used to complete the baccalaureate degree and also to satisfy requirements for the master's degree. Students must earn grades of B or better in graduate courses taken. For application forms and information on application procedures, please contact the Associate Dean's Office.

School of Economic, Political and Policy Sciences

As a collective of several disciplines, social science is the study of people, groups of people, institutions, and organizations. It is a commitment to the description, explanation and prediction of human behavior. Social scientists ask such questions as: How are groups formed? How do people produce and distribute goods? Why do cities grow, and why do some cities decay? What are the causes of war, of racial discrimination, of revolutions? What roles do government, law and politics play in our society? And, how can we improve our quality of life? Social science uses rigorous methodologies to apply ideas and theories to the real world. Degrees in the social sciences provide students with the tools of critical thinking that allow them to work and succeed in business, government and not-for-profit organizations.

The School of Economic, Politics and Policy Sciences offers undergraduate degrees in Criminology, Economics, Geography, International Political Economy, Political Science, Public Affairs, and Sociology. Each degree offers a large number of elective hours that allow students to direct their educational focus. Careers building on social science degrees include law, public service, finance, banking, criminal justice, human resource management, teaching, market research and analysis, urban planning and counseling to name a few.

Faculty

Professors: Sheila Amin Gutiérrez de Piñeres, Daniel Arce, Kurt Beron, Brian J. L. Berry (Dean), Anthony M. Champagne, Harold Clarke, Rachel Croson, Lloyd J. Dumas, Catherine Eckel, Euel Elliott (Senior Associate Dean), Daniel Griffith, Edward J. Harpham, Donald A. Hicks, Paul Jargowsky, L. Douglas Kiel, Murray J. Leaf, Robert Lowry, James Marquart, James C. Murdoch, Lawrence J. Redlinger, Todd Sandler, Richard K. Scotch, Barry J. Seldon, Marianne C. Stewart, Paul Tracy, Wim P. M. Vijverberg, Douglas Watson

Associate Professors: Bobby C. Alexander, Philip K. Armour, Nathan Berg, Thomas Brunell, Marie Chevrier, Simon Fass, Jennifer S. Holmes, Bruce Jacobs, Thomislav Kovandzik, Susan Williams McElroy, Fang Qui, Kevin Siqueria, Gregory S. Thielemann, Michael Tiefelsdorf, John Worrall

Assistant Professors: Paul Battaglio, Patrick Brandt, Kevin Curtin, Chetan Dave, Douglas Dow, Karen Hayslett-McCall, Melinda Kane, Linda Kemp Keith, Robert Morris, Stephanie Newbold, Denise Pacquette-Boots, Clint Peinhardt, Alicia Schortgen, Sheryl Skaggs, Lynne Vieraitis, Carole Wilson

Professors Emeritus: Alexander L. Clark, Irving J. Hoch

Research Professor: Sonya Salamon

Clinical Professors: Donald Arbuckle, Stuart Murchison

Clinical Associate Professor: Wendy Hassett

Clinical Assistant Professors: Timothy Bray, Wenhua Di, Danielle Lavin-Loucks

Senior Lecturers: Brian Bearry, Teodora Benevides, Cliff Bowden, Kruti Dholakia (Associate Dean for Undergraduate Education)

Programs and General Courses

The School of Economic, Political and Policy Sciences has seven degree-granting programs: Criminology, Economics, Geography, International Political Economy, Political Science, Public Affairs, and Sociology. Within each of these programs, students may specialize in areas that complement their interests and career plans, such as urban studies, political economy, law and society, and comparative studies. Students should also note that many courses listed under Interdisciplinary Studies (ISSS) and Social Sciences (SOCS) apply within their major.

Minor Areas of Study

The School of Economic, Political and Policy Sciences offers minors in Criminology, Economics, Geography, International Political Economy, Political Science, Public Affairs, and Sociology. Minors are described following each major. The School of Economic, Political and Policy Sciences requires that a minimum of 12 of the 18 hours for a minor be taken at UTD.

Related Minor Areas: (See Minor's Handbook for specific course requirements)

Minor in Urban Development (18 hours)

Minor in Gender Studies (18 hours)

Minor in Global Studies (18 hours)

Social Studies Teacher Certification

Teacher certification is offered in Composite Social Studies, Economics, Geography, Government, and History. Specific course requirements are available in the Teacher Development Center.

Economic, Political, and Policy Sciences Core Requirements

All undergraduates receiving degrees in the School of Economic, Political and Policy Sciences must have taken and passed a core of courses designed to provide breadth and an interdisciplinary perspective beyond any individual social science discipline. These courses include:

Three semester hours in economics (normally ECON 2302 or ECON 2301)

Three semester hours in sociology (normally SOC 1301 or SOC 2319)

Four semester hours in statistics (normally SOCS 3405)

Three semester hours in an approved ISSS or other Social Science course with a comparative or international focus; see required comparative or international courses under Major Core Courses under each Major.

Three semester hours in an approved Social Science course satisfying the advanced writing requirement; see courses under Major Core Courses for each Major.

Three semester hours in an approved ISSS or other Social Science course with a distributive justice focus; see required distributive justice courses under Major Core Courses for each Major.

Internship and Independent Study Policy

The total number of independent study and internship hours are limited to nine total hours with the exception of extenuating circumstances to be approved by the Associate Dean for Undergraduate Education.

Fast Track Baccalaureate/Master's Degrees

Undergraduate EPPS majors with a strong academic record (3.00 or above) are encouraged to enter the Fast Track program, which allows qualified seniors to take up to 15 credit hours of graduate courses during their senior year. The number of hours required to complete the graduate degree is reduced by the number of Fast-Track graduate hours completed with grades of B or better. So, for example if the degree requirements were 36 hours, a Fast-Track undergraduate who passed 12 hours of well-chosen graduate coursework with grades of A or B, would have only $36-12=24$ hours of graduate coursework left in order to complete the graduate degree. When a successful Fast-Track student graduates with the B.S./B.A. degree, he or she still needs to complete an application for admission to the graduate school at UT Dallas and meet all requirements for admission, including the Graduate Records Exam (GRE) and letters of recommendation. Degree requirements and hours vary by programs. Students enrolled in the Fast Track must maintain a 3.00 grade point average and earn grades of B or better in graduate courses taken. Students who are interested in the Fast Track should speak with the Program Head and complete an application form with their academic advisor prior to the final 30 credit hours of work for the B.A. or B.S. degree.

Economics, Political, and Policy Sciences Honors Program

The School Honors Program in the School of EPPS provides eligible students with the opportunity for recognition at the Program level for scholarly performance in degree programs within the School. In order to earn EPPS honors a student must:

1. graduate with an overall GPA of 3.40 or higher
 2. graduate with a GPA of 3.40 or higher in their major program of study
 3. complete any two of the following requirements:
 - a. Complete 9 hours of honors designated courses as determined by the program, with no less than a "B" in each course.
 - b. Complete an internship by completing three hours of 4V98 internship. The internship must be approved by the Program Head, and have a significant research component
 - c. Register for 4V99 Senior Honors and complete an Honors paper.
-

School Honors with Distinction will be awarded to those students who complete a Senior Honors thesis, and whose paper is judged by a faculty committee to be of exemplary quality and provided the student meets the other requirements stated above.

Students must apply for admission to the Program Head and Undergraduate Program advisor of the academic program in which they expect to receive their degree. Students must apply no later than 30 semester hours prior to graduation and no earlier than 60 hours prior to graduation.

Criminology (B.A.)

The Criminology Program is an interdisciplinary academic program, based primarily in criminology and sociology that studies the interrelationships among law, policy, and societal conditions. The relationships among these factors are dynamic and complex, therefore Criminology integrates a variety of perspectives, approaches, and social science disciplines in order to analyze and understand the origins of crime and injustice and society's response to these issues.

Mission Statement

The mission of the Criminology Program is to examine the causes and consequences of crime and crime control politics by providing a program of study involving a variety of perspectives, approaches, and social science disciplines to undergraduate students. Our faculty members are dedicated teachers and scholars who have published their work in the most prestigious journals in the field. They are committed to expanding the knowledge of the discipline and preparing students to be leaders in influencing our society's response to crime.

Majors in the Criminology program at U.T. Dallas will be provided an educational experience, which will allow them to put their academic training, background and experience to use in a wide variety of post-graduate educational and occupational positions, including:

- Employment in Criminal Justice agencies at the federal, state, and local government level;
- Graduate School in Criminology or Criminal Justice (or a related social science discipline);
- Law School; or
- Social Work, Counseling, or other Human Service program.

Bachelor of Arts in Criminology Degree Requirements (120 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (CRIM 3300)²
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Sciences Elective (ECON 2301 or ECON 2302)²
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 3 hours Mathematics (at or above College Algebra, recommended MATH 1306 or 1314)
 - 4 hours Quantitative Reasoning (SOCS 3405)²
- E. Science (9 hours including at least one course with a substantial laboratory component)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parenthesis are the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements: 52 hours

- Major Preparatory Courses (6 hours)
- CRIM 1301 Introduction to Criminal Justice
 - CRIM 1307 Introduction to Crime and Criminology

Major Core Courses (22 hours)

- CRIM 3301 Theories of Justice
or another EPPS course with a distributive justice emphasis such as SOC 4361 Law and Society, SOC 4302 Class, Status, and Power, or ECON 4320 Public Sector Economics
- CRIM 3302 Advanced Criminology
- CRIM 3303 Advanced Criminal Justice
- CRIM 3304 Research Methods in Crime and Justice Studies (taken before SOCS 3405)
- CRIM 3319 Comparative Justice Systems
or another ISSS or Social Science course with a comparative or international focus such as ECON 3370 The Global Economy, or PSCI 3350 Comparative Politics
- CRIM 4305 Social Control and Criminal Sanctions
- CRIM 4321 Senior Research Seminar
- SOCS 3405 Introduction to Social Statistics with Lab²
- 3 hours Communication Elective (See advisor for list of approved courses)²

Major Related Courses (24 hours)

- 15 hours CRIM courses, including at least 12 hours of upper-division courses
- 9 hours Major and Related Electives³

² This course is a Major requirement that also fulfills a Core Curriculum requirement. Hours are counted in Core Curriculum.

³ Students must take 3 hours in Sociology. Most students take 6 hours of upper-division CRIM courses. However, subject to advisor approval, courses from other disciplines may be used to satisfy this requirement.

III. Elective Requirements: 26 hours

Advanced Electives (6 hours)

All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites.

Free Electives (20 hours)

This requirement may be satisfied with lower- and upper-division courses from any field of study. Note: Students must complete at least 51 hours of upper-division credit to qualify for graduation.

Minor in Criminology: 18 hours

For a minor in Criminology, students must take the following: CRIM 1301 and CRIM 1307, and twelve hours of crime and justice studies electives, excluding CRIM 4V97, CRIM 4V98, and CRIM 4V99.

Economics (B.A., B.S.)

Economists study how people make choices in life when scarcity limits what is available. They look at a society's financial, industrial, and labor organizations; its distribution of income and ownership rights; its governmental activities; and its political and economic philosophies, and analyze how these and other factors influence the goods an economy produces, the resources it uses in production, and the distribution of its output. They also look at how incentives affect decisions relating to human behavior, such as whether to obey the law, get married, or have children.

Economic analysis leads to explanations, predictions, and policy suggestions. How are wages and prices set? Why do some cities boom while others decline? Why do we have an energy crisis? How should we use our exhaustible resources? How will consumers and corporations react to a tax cut? How can the crime rate be reduced? If we are to use our resources efficiently, what antitrust and government regulations should be enforced? What can be done to reduce inflation and unemployment? To prevent excess pollution? To achieve economic growth? To distribute income more equitably? In examining these sorts of questions, economics helps us to understand more clearly the choices available to us and the consequences of our decisions.

There is an abundance of career opportunities for an economics major.

Careers in business include consulting, banking and other financial institutions, insurance, corporate strategic planning, real estate, journalism, management, marketing, and public utilities.

Careers in government include consulting, publicly owned utilities, planning and forecasting, regulatory agencies, management, needs assessment, legislative staffs, judicial agencies, and executive support.

Careers in the interfacing of business and government include labor arbitration, regulation, environmental planning, urban and regional planning, and interest representation.

Bachelor of Arts in Economics Degree Requirements (120 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (ECON 4346 or ECON 4382)²
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Political Science (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Sciences Elective (SOC 1301, SOC 2319, CRIM 1301, or CRIM 1307)²
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)³
 - 3 hours Mathematics (at or above the level of College Algebra)
 - 3 or 4 hours Quantitative Reasoning (STAT 1342 or SOCS 3405)²
- E. Science (9 hours including at least one course with a substantial laboratory component)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parenthesis are the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements: 46 hours

- Major Preparatory Courses (6 hours)
 - ECON 2301 Principles of Macroeconomics*
 - ECON 2302 Principles of Microeconomics*
- Major Core Courses (22 hours)
 - ECON 3304 Basic Techniques for Economic Research*
 - ECON 3310 Intermediate Microeconomic Theory
 - ECON 3311 Intermediate Macroeconomic Theory
 - STAT 1342 Statistical Decision Making
 - or SOCS 3405 Introduction to Social Statistics with Lab²
- One of the following:
 - ECON 4346 Technology, Economy and Society
 - ECON 4382 International Finance
- Distributive Justice Course:
 - ECON 4320 Public Sector Economics
- And one of the following:
 - ECON 3370 The Global Economy
 - ECON 4360 International Trade
 - ECON 4362 Development Economics
 - ECON 4382 International Finance
- Major Related Courses (24 hours)
 - 24 hours Economics upper-division ECON courses

² A Major requirement that also fulfills a Core Curriculum requirement. Hours are counted in Core Curriculum above.

³ Students wishing to pursue Master's or Ph.D. degrees in economics should consult their advisor about appropriate mathematics and quantitative methods courses.

* Indicates a prerequisite class to be completed before enrolling for upper-division classes in Economics and Finance.

III. Elective Requirements: 32 hours

Advanced Electives (6 hours)

All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites.

Free Electives (26 hours)

This requirement may be satisfied with lower- and upper-division courses from any field of study. Students must complete at least 51 hours of upper-division credit to qualify for graduation.

Bachelor of Science in Economics Degree Requirements (120 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (recommended ECON 4346 or ECON 4382)²
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Political Science (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Sciences Elective (SOC 1301, SOC 2319, CRIM 1301, or CRIM 1307)²
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)³
 - 3 hours Mathematics (MATH 2417 recommended, or MATH 1325)
 - 3 hours Quantitative Reasoning (STAT 3360)²
- E. Science (9 hours including at least one course with a substantial laboratory component)

¹Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education.

²The courses listed in parenthesis are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements: 53 hours

Major Preparatory Courses (14 hours)

- ECON 2301 Principles of Macroeconomics*
- ECON 2302 Principles of Microeconomics*
- MATH 2417 Calculus I (recommended)
 - or MATH 1325 Applied Calculus I*²
- MATH 2418 Linear Algebra (recommended)
 - or MATH 2333 Matrices, Vectors and Their Application
- MATH 2419 Calculus II (recommended)
 - or MATH 1326 Applied Calculus II

Major Core Courses (24 hours)

- ECON 3310 Intermediate Microeconomic Theory
- ECON 3311 Intermediate Macroeconomic Theory
- ECON 4351 Mathematical Economics
- ECON 4355 Econometrics
- STAT 3360 Probability and Statistics for Management and Economics²

One of the following:²

- ECON 4346 Technology, Economy and Society
- ECON 4382 International Finance

Distributive Justice Course:

- ECON 4320 Public Sector Economics

And one of the following:

- ECON 3370 The Global Economy
- ECON 4360 International Trade

ECON 4362 Development Economics
 ECON 4382 International Finance
 Major Related Courses (15 hours)
 15 hours Economics upper-division ECON courses

² A Major requirement that also fulfills a Core Curriculum requirement. Hours are counted in Core Curriculum.

³ Students wishing to pursue Master's or Ph.D. degrees in economics should consult their advisor about appropriate mathematics and quantitative methods courses.

* Indicates a prerequisite class to be completed before enrolling for upper-division classes in Economics and Finance.

III. **Elective Requirements: 25 hours**

Advanced Electives (6 hours)

All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites.

Free Electives (19 hours)

This requirement may be satisfied with lower- and upper-division courses from any field of study. Students must complete at least 51 hours of upper-division credit to qualify for graduation. Note: students may need more than 19 hours, depending on the mathematics sequence selected.

One option of specialization offered by the Economics program to students pursuing a Bachelor of Science degree is a double major with a Bachelor of Science in Finance with the Chartered Financial Analyst (CFA®) track. The CFA® program, administered by the CFA® Institute, is a globally recognized standard for measuring the competence and integrity of financial analysts. Three levels of examination measure a candidate's ability to apply the fundamental knowledge of investment principles at a professional level. The CFA® examinations are administered annually in more than 70 nations worldwide. For information about registering in the CFA® program, see the CFA® web site at <http://www.cfainstitute.org/>. The Economics Program, in conjunction with the Finance Program in the School of Management, offers a number of courses that help prepare students for the level I examination. Specific information is provided in the section on requirements for the Bachelor of Science in Economics.

Bachelor of Science in Economics and Finance (Double Major) with an emphasis in CFA®

Degree Requirements (126-127 hours)

I. **Core Curriculum Requirements¹: 42 hours**

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (BA 3311)
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Sciences Elective (ECON 2301)²
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)³
 - 3 hours Mathematics (MATH 1325)
 - 3 hours Quantitative Reasoning (STAT 3360)²
- E. Science (9 hours including at least one course with a substantial laboratory component)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parenthesis are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

* Degree is 127 hours if student is required to take RHET 1101.

II. **Major Requirements: 57 hours**

Major Preparatory Courses (18 hours)
 AIM 2301 Introductory Financial Accounting *

AIM 2302 Introductory Management Accounting *

BA 2301 Business and Public Law *

ECON 2301 Principles of Macroeconomics*

ECON 2302 Principles of Microeconomics*

MATH 1325 Applied Calculus I ^{*2, 3}

MATH 1326 Applied Calculus II ^{*2, 3}

MATH 2333 Matrices, Vectors and Their Application ^{*4}

Major Core Courses (42 hours)

BA 3311 Business Communications

BA 3341 Business Finance

BA 3351 Introduction to Management Information Systems

BA 3352 Production Management

BA 3361 Organizational Behavior

BA 3365 Principles of Marketing

BA 3390 Quantitative Methods in Finance

BA 4305 Strategic Management

BA 4346 Investment Management

BA 4371 International Business

ECON 3310 Intermediate Microeconomic Theory

ECON 3311 Intermediate Macroeconomic Theory

ECON 4351 Mathematical Economics

ECON 4355 Econometrics

STAT 3360 Probability and Statistics for Management and Economics ²

² A Major requirement that also fulfills a Core Curriculum requirement. Hours are counted in Core Curriculum.

³ These hours are counted under Mathematics Core above; students may substitute MATH 2417 and MATH 2419.

⁴ Students may substitute MATH 2418 or CS 2305.

* Indicates a prerequisite class to be completed before enrolling for upper-division classes in Economics and Finance.

III. Guided Elective Requirements: 27 hours

Select 9 hours from: BA 4199, BA 4299, BA 4345, BA 4347, BA 4348, BA 4349, BA 4350, or BA 4361.

Select 6 hours from: AIM 3320, AIM 3331, AIM 3351, AIM 4332, AIM 4336, or AIM 4337.

Select 12 hours from: ECON 3370, ECON 4320, ECON 4346, ECON 4360, ECON 4362, ECON 4382, ECON 4396, or ECON 4399.

Minor in Economics (18 hours)

For a minor in Economics, students must take ECON 2301, ECON 2302, ECON 3304, either ECON 3310 or ECON 3311, and six hours of ECON electives. Electives may be any upper-division course with the ECON prefix with the exception of ECON 4V97, ECON 4V98, and ECON 4V99.

Geography (B.A.)

Geography is the science of place and space. Geographers ask where things are located on the surface of the earth, why they are located where they are, how places differ from one another, and how people interact with the environment. It is inherently interdisciplinary and international, and has been revolutionized recently by new technologies such as geographic information systems, global positioning systems and remote sensing.

Geographers forge close ties with many others including urban and regional economists, sociologists and planners, as well as with those who study international trade and economic growth. Geographers who explore environmental relationships become skilled in earth science (for example, geomorphology or climatology) or become leaders in the development of cultural ecology, linking closely with anthropology and archaeology. Geographers play leading roles in such policy arenas as urban and transportation planning, area studies, regional and international development, risk analysis, and environmental management. And they increasingly contribute their technological skills in geographic information systems, remote sensing and spatial analysis.

Mission and Objectives

The mission of the Bachelor of Arts in Geography program is to provide students a rigorous education in the fundamental theories, concepts, quantitative tools and analytical research methodologies central to the field of geography. The program fosters an understanding of the local and global ways in which humans interact with spatially distributed phenomena, organize their activities in space, and use and manage the earth's resources and environments. So equipped, UT Dallas geography graduates will effectively participate as global citizens, successfully compete for professional jobs requiring strong analytical geographic skills and an integrative spatial perspective, and be admitted to the best graduate schools globally.

Students in the program will:

- Demonstrate their knowledge of the fundamental theories and concepts central to the field of geography.
- Apply quantitative tools and analytical research methodologies to spatial issues central to the field of geography.
- Analyze and evaluate the local and global ways in which humans interact with spatially distributed phenomena, organize their activities in space, and use and manage the earth's resources and environments.

Options

UTD offers three degree options to its geography majors: a general B.A. degree, a B.A. with certification in Geographic Information System (GIS) technologies, and a B.A. with a concentration in Regional Development and International Studies.

Those who elect the general BA degree are provided an educational experience to allow them to put their degrees, backgrounds, and experience to use in a wide variety of post-graduate educational and occupational positions, including:

- Graduate School in Geography (or a related social, policy or environmental science discipline, including UTD's own graduate programs in Geospatial Information Science, Public Policy and Political Economy, and Public Affairs;
- Urban, Environmental or Transportation Planning;
- The travel industry;
- Public Policy or Management;
- Marketing, Real Estate or Location Analysis;
- Employment in federal, state and local government agencies.

Those who elect the option for certification in Geographic Information Systems have added opportunities as GIS analysts in many of these same areas, as well as other areas such as natural resource exploration, cartography, crime analysis, and geospatial intelligence.

The concentration in regional development and international studies is interdisciplinary and serves a group of students who cross the disciplines of geography, political science, economics, sociology, and the humanities. Graduates with a specialization in this area will possess the skills that are necessary to meet the needs and demands of the international diplomatic and business sectors, in particular, students will be prepared to identify and develop solutions to current problems in public and international affairs, including regional development. Students also will be prepared for analytical and administrative positions and responsibilities in the government, policy-making, or private sector. The program builds on requirements in foreign language, regional/comparative studies, and an international foundation. Students choose from three fields of study: Globalization and Development, International Political Economy, and Culture and Politics. Each field of study combines theory and social science research methods to provide students with the skills and ability to deal effectively with international issues. The Globalization and Development field focuses on issues related to the global economy and regional development. The International Political Economy field allows students to understand how economic policy is formulated by political leaders, providing a means to better understand complex interactions at the local, national, and international levels. The Culture and Politics field allows students to explore the mutual engagement of culture, space, and political power adding a new and crucial dimension to the study of international affairs.

Bachelor of Arts in Geography Degree Requirements (120 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (GEOG 3377)²

- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Political Science (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Sciences Elective (SOC 1301, SOC 2319, CRIM 1301, or CRIM 1307)²
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 3 hours Mathematics (at or above the level of College Algebra)
 - 4 hours Quantitative Reasoning (SOCS 3405)²
- E. Science (9 hours)
 - GEOS 1103 Physical Geology Laboratory
 - GEOS 1104 History of Earth and Life Laboratory
 - GEOS 1303 Physical Geology
 - GEOS 1304 History of Earth and Life
 - 1 hour Science elective

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. ²The courses listed in parenthesis are the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements: 52 hours

Major Preparatory Courses (9 hours)

- ECON 2302 Principles of Microeconomics*
- GEOG 2303 People and Place: An Introduction to World Geographic Regions
- GEOG 2302 The Global Environment*
- GEOS 1103 Physical Geology Laboratory²
- GEOS 1104 History of Earth and Life Laboratory²
- GEOS 1303 Physical Geology²
- GEOS 1304 History of Earth and Life²

Major Core Courses (25 hours)

- GEOG 3304 Tools for Spatial Analysis
or GEOG 3323 Geographic Information Systems
- GEOG 3377 Urban Planning and Policy²
- SOCS 3405 Introduction to Social Statistics with Lab²

Four of the following:

- GEOG 3301 Cultural Ecology
- GEOG 3331 Urban Growth and Structure
- GEOG 3341 Politics, Place and Space
- GEOG 3357 Spatial Dimensions of Health and Disease
- GEOG 3358 Population: Concepts and Issues
- GEOG 3370 The Global Economy
- GEOG 3372 Population and Development
- GEOG 3373 Transportation and Logistics
- GEOG 4380 Spatial Concepts and Organization

One of the following:

- CRIM 3301 Theories of Justice
- ECON 4320 Public Sector Economics
- PSCI 4364/SOC 4364 Civil Rights Law and Society
- SOC 4361 Law and Society

Major Related Courses (24 hours)

- 18 hours Geography upper-division electives
- 6 hours Major and Related electives³

² A Major requirement that also fulfills a Core Curriculum requirement. Hours are counted in Core Curriculum.

³ Most students take upper-division GEOG courses. However, subject to advisor approval, courses from other disciplines may be used to satisfy this requirement. * Indicates a prerequisite to be completed before enrolling in upper-division GEOG courses.

III. Elective Requirements: 26 hours

Advanced Electives (6 hours)

All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites.

Free Electives (20 hours)

This requirement may be satisfied with lower- and upper-division courses from any field of study. Students must complete at least 51 hours of upper-division credit to qualify for graduation.

Specialization Areas**GIS Certification**

This specialization area requires admission into the Fast Track program. Students interested in this specialization should take the following sequence of courses within the Major Related Requirements.

Major Related Courses (9 hours)

9 hours Geography upper-division electives³

GIS Certification (15 hours)

GISC 6381 GIS Fundamentals

GISC 6382 Applied GIS

GISC 6387 GIS Workshop

Two additional GISC courses

Regional Development and International Studies Concentration

Students interested in this specialization should take the following sequence of courses within the Major Related and Elective Requirements.

Major Related Courses (12 hours)

12 hours Geography upper-division electives³

Regional Development and International Studies (32 hours)

Regional and Comparative Studies (9 hours)

These must be from the same area (e.g. Latin America, Europe, Africa, or The Middle East). See an advisor for a list of approved courses.

International Foundation (9 hours)

Choose 3 of the following:

ECON 4360 International Trade

ECON 4382 International Finance

PSCI 3328 International Relations

PSCI 3350 Comparative Politics

PSCI 4329 Global Politics

Field of Study (14 hours)

Students must choose from Globalization and Development; International Political Economy; or Culture and Politics. All hours must be taken in the same field of study. See an advisor for a list of approved courses.

Advanced Electives (6 hours)

6 hours in the same foreign language. These must be either upper-division classes or lower-division classes that have prerequisites.

³ Most students take upper-division GEOG courses. However, subject to advisor approval, courses from other disciplines may be used to satisfy this requirement.

Minor in Geography (18 hours)

For a minor in Geography, students must take GEOG 2302, GEOG 3304, GEOG 3370 and three additional Geography (GEOG) or Geographic Information Sciences (GISC) courses, with no more than one at the lower division (100 or 200 level).

International Political Economy (B.A., B.S.)

The International Political Economy program is an interdisciplinary academic program to help students function successfully in today's increasingly complex international environment. Graduates will develop skill sets that include critical thinking, knowledge of multiple cultures, and effective communication skills. Students will be prepared for entry level analytical and administrative positions in the public, non-profit, and for profit private sectors. The School of Economic, Political, and Policy Sciences offers both the B.A. and B.S. degree in International Political Economy. The B.A. degree places a somewhat greater emphasis on culture, literature, and history. The B.S. degree places a somewhat greater emphasis in economics and international finance.

Employment options include, but are not limited to:

- Careers in the diplomatic corps;
- Positions with international organizations including The United Nations, World Trade Organization, World Bank, and others;
- Positions with multinational corporations as analysts and managers.

Bachelor of Arts in International Political Economy Degree Requirements (120 hours)

I. Core Curriculum Requirements¹: 43 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (PSCI 3325)²
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History (HIST 1301 and 1302)
 - 3 hours Economics Elective (ECON 2301)²
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (7 hours)³
 - 3 hours Mathematics (at or above College Algebra MATH 1314)
 - 4 hours Quantitative Reasoning (SOCS 3405)²
- E. Science (9 hours including at least one course with a substantial laboratory component)

II. Major Requirements: 27 hours

- Major Core Courses
- ECON 2302 Principles of Microeconomics
 - ECON 3370 The Global Economy
 - GEOG 2303 People and Place: An Introduction to World Geographic Regions
 - GEOG 3304 Tools for Spatial Analysis
 - PSCI 4329 Global Politics
 - PSCI 4356 International Political Economy
 - ISSS 3349 World Resources and Development
 - LIT 3304 Advanced Composition
 - SOC 3333 Religion in Society

III. Elective Requirements: 50 hours

- History – Upper Division (6 hours)
- International Political Economy (18 hours)
 - All students are required to take at least eighteen hours of advanced electives from approved courses in economics, geography, political science, or sociology.
- Area Electives (14 hours)
 - This requirement may be satisfied with upper-division courses from any given area within IPEC and related fields of study. Students must complete at least 51 hours of upper-division credit to qualify for graduation.
- Foreign Language Requirement (12 hours)

Four consecutive semesters in one language of choice

or

If the language credit is obtained without requiring to take classes, 12 hours of Free Electives (upper-division or lower-division) can be taken by student

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parenthesis are the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

² A Major requirement that also fulfills a Core Curriculum requirement. Hours are counted in Core Curriculum above.

³ Students wishing to pursue Master's or Ph.D. degrees in economics should consult their advisor about appropriate mathematics and quantitative methods courses.

Bachelor of Science in International Political Economy Degree Requirements (120 hours)

I. Core Curriculum Requirements¹: 43 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (ECON 4382)²
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History (HIST 1301 and 1302)
 - 3 hours Economics Elective (ECON 2301)²
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (7 hours)³
 - 3 hours Mathematics (MATH 1325)
 - 4 hours Quantitative Reasoning (SOCS 3405)²
- E. Science (9 hours including at least one course with a substantial laboratory component)

II. Major Requirements: 34 hours

Major Core Courses

- ECON 2302 Principles of Microeconomics
- ECON 3310 Intermediate Microeconomic Theory
- ECON 3311 Intermediate Macroeconomic Theory
- ECON 4360 International Trade
- GEOG 2303 People and Place: An Introduction to World Geographic Regions
- GEOG 3304 Tools for Spatial Analysis
- ISSS 3349 World Resources and Development
- LIT 3304 Advanced Composition
- PSCI 4329 Global Politics
- PSCI 4356 International Political Economy
- SOC 3333 Religion in Society

III. Elective Requirements: 44 hours

History – Upper Division (6 hours)

International Political Economy (18 hours)

All students are required to take at least eighteen hours of advanced electives from approved courses in economics, geography, political science, or sociology.

Area Electives (8 hours)

This requirement may be satisfied with upper-division courses from any given area within IPEC and related fields of study. Students must complete at least 51 hours of upper-division credit to qualify for graduation.

Foreign Language Requirement (12 hours)

Four consecutive semesters in one language of choice

or

If the language credit is obtained without requiring to take classes, 12 hours of Free Electives (upper-division or lower-division) can be taken by student

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parenthesis are the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

² A Major requirement that also fulfills a Core Curriculum requirement. Hours are counted in Core Curriculum above.

³ Students wishing to pursue Master's or Ph.D. degrees in economics should consult their advisor about appropriate mathematics and quantitative methods courses.

Minor in International Political Economy (18 hours)

Please see your advisor for the latest requirements for this minor.

Political Science (B.A.)

Political Science involves the study of interesting and important topics about citizenship, government and politics. These topics include the influence of citizens on what government does, the scope, responsibilities and effectiveness of government itself, and the activities of both elected and appointed public officials. These topics are important parts of what political scientists know about American government and politics, comparative government and politics, international relations, political behavior, political economy, political institutions, and political theory. Political scientists and public administrators pay particular attention to the design, implementation, and evaluation of laws and public policies that may affect people's well-being.

The Political Science Program at The University of Texas at Dallas provides:

- (1) the foundations for more advanced, graduate study of citizenship, government and politics in Political Science;
- (2) the special core knowledge needed for subsequent professional education in law and public policy analysis;
- (3) the opportunity to acquire useful skills for careers in federal, state, and local government, community service, educational, and other nonprofit organizations, and business firms.

Bachelor of Arts in Political Science Degree Requirements (120 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (PSCI 3325)²
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Sciences Elective (SOC 1301, CRIM 1301, ECON 2301, or ECON 2302)²
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 3 hours Mathematics (at or above level of College Algebra, recommended: MATH 1306 or 1314)
 - 4 hours Quantitative Reasoning (SOCS 3405)²
- E. Science (9 hours including at least one course with a substantial laboratory component)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parenthesis are the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

²A Core Curriculum Requirement that also fulfills a Major Requirement. Hours are counted in the Core Curriculum.

II. Major Requirements: 55 hours

- GOVT 2301 Constitutional Foundations and Political Behavior in the U.S. and Texas²
- GOVT 2302 Political Institutions in the U.S. and Texas²
- PSCI 3325 American Public Policy²

SOCS 3405 Introduction to Social Statistics with Lab²

One of: ²

CRIM 1301 Introduction to Criminal Justice
or ECON 2301 Principles of Macroeconomics
or ECON 2302 Principles of Microeconomics
or SOC 1301 Introduction to Sociology

Major Core Courses (18 hours)

PSCI 3301 Political Theory
PSCI 3322 Constitutional Law
PSCI 3333 Political Behavior
PSCI 3362 American Political Institutions
PSCI 4329 Global Politics

One of the following:

CRIM 3301 Theories of Justice
PSCI 3303 Civil Liberties
PSCI 3326 Politics and Business
PSCI 3364 Campaigns and Elections
PSCI 4364 Civil Rights Law and Society

Major Core Concentration (9 hours)

Three courses from *one* of the following concentrations:

Theory Concentration

PSCI 3306 Political Economy
PSCI 3323 American Federalism
PSCI 4330 The Bible and Politics
PSCI 4354 Contemporary Political Thought

Law Concentration

PSCI 3303 Civil Liberties
PSCI 3351 Comparative Courts and Law
PSCI 3353 Law and Gender
PSCI 4341 Politics of the Judicial Process
PSCI 4345 Negotiation and Conflict Resolution
PSCI 4357 Human Rights and the Rule of Law
PSCI 4364 Civil Rights Law and Society
PSCI 4365 Law and Medicine

American Politics Concentration

PSCI 3310 Public Administration
PSCI 3323 American Federalism
PSCI 3340 Film and Politics
PSCI 3364 Campaigns and Elections
PSCI 4311 The Political Economy of Modern Texas
PSCI 4326 Political Parties and Interest Groups
PSCI 4342 Legislative Decision Making
PSCI 4343 Congress and Public Policy
PSCI 4344 Race and Redistricting
PSCI 4349 The Politics of the Bureaucratic Process
PSCI 4364 Civil Rights Law and Society
PSCI 4368 Leadership

Global Politics Concentration

PSCI 3327 American Foreign Policy
PSCI 3328 International Relations
PSCI 3350 Comparative Politics
PSCI 3351 Comparative Courts and Law
PSCI 4331 Mexican Politics
PSCI 4332 Latin American Politics
PSCI 4346 War and Peace
PSCI 4347 The War on Drugs

PSCI 4348 Terrorism
 PSCI 4356 International Political Economy
 PSCI 4357 Human Rights and the Rule of Law

Public Policy Concentration

PSCI 3326 Politics and Business
 PSCI 3327 American Foreign Policy
 PSCI 3353 Law and Gender
 PSCI 3364 Campaigns and Elections
 PSCI 4326 Political Parties and Interest Groups
 PSCI 4343 Congress and Public Policy
 PSCI 4347 The War on Drugs
 PSCI 4349 The Politics of the Bureaucratic Process

Major Related Courses (27 hours)

27 hours Major and Related electives³

³ Most students take upper-division PSCI courses. However, subject to advisor approval, courses from other disciplines may be used to satisfy this requirement.

III. Elective Requirements: 23 hours

Advanced Electives (6 hours)

All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites.

Free Electives (17 hours)

This requirement may be satisfied with lower- and upper-division courses from any field of study. Students must complete at least 51 hours of upper-division credit to qualify for graduation.

Minor in Political Science (18 hours)

For a minor in Political Science, students must take GOVT 2301 and GOVT 2302. In addition students must take four upper-division courses with a PSCI prefix with the exception of PSCI 4V97, PSCI 4V98, and PSCI 4V99.

Public Affairs (B.S.)

The Bachelor of Science in Public Affairs is intended for individuals called upon to manage in the arenas of government, non-profits, or business. These generalist managers must synthesize many forms of knowledge derived from government, economics, sociology, and other fields, and must apply that knowledge creatively to meet the varied and multiple challenges of public administration. The ability to understand the substance of policy and program issues; the ability to grasp the administrative, political, and ethical implications imbedded in them; and the ability then to act upon the issues with effect, together define the worth of contemporary managers.

The Public Affairs program promotes acquisition of knowledge and skills essential to the tasks of identification, analysis, design implementation, supervision, evaluation, communication, and other key functions that are integral components of management careers in federal, state, and local governments; criminal justice; in social service, education, community development, arts and other nonprofit organizations; and in business firms.

**Bachelor of Science in Public Affairs
 Degree Requirements (120 hours)**

I. Core Curriculum Requirements¹: 42 hours

A. Communication (6 hours)

3 hours Communication (RHET 1302)

3 hours Communication Elective (PA 3377)²

B. Social and Behavioral Sciences (15 hours)

6 hours Political Science (GOVT 2301 and 2302)

- 6 hours American History
- 3 hours Social and Behavioral Sciences Elective (SOC 1301, SOC 2319, CRIM 1301, or CRIM 1307)²
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 3 hours Mathematics (at or above level of College Algebra, recommended: MATH 1306 or 1314)
 - 3 hours Quantitative Reasoning (SOCS 3405)²
- E. Science (9 hours including at least one course with a substantial laboratory component)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parenthesis are the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements: 49 hours

- Major Preparatory Courses (3 hours)
 - ECON 2301 Principles of Macroeconomics
 - or ECON 2302 Principles of Microeconomics
- Major Core Courses (28 hours)
 - PA 3304 Research Methods in Public Administration
 - PA 3310 Public Administration
 - PA 3333 Human Resources Management
 - PA 3377 Urban Planning and Policy²
 - PA 4312 Organizations
 - PA 4360 Ethics in Public Administration
 - PSCI 3322 Constitutional Law
 - PSCI 3328 International Relations
 - SOCS 3405 Introduction to Social Statistics with Lab²
- Major Related Courses (24 hours)
 - 24 hours Major and Related electives³

² A Major requirement that also fulfills a Core Curriculum requirement. Hours are counted in Core Curriculum.

³ Most students take upper-division PA courses. However, subject to advisor approval, courses from other disciplines may be used to satisfy this requirement.

III. Elective Requirements: 29 hours

- Advanced Electives (6 hours)
 - All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites.
- Free Electives (23 hours)
 - This requirement may be satisfied with lower- and upper-division courses from any field of study. Students must complete at least 51 hours of upper-division credit to qualify for graduation.

Minor in Public Affairs (18 hours)

For a minor in Public Administration, students must take PA/ PSCI 3310, PA 3333, PA 4312/SOC 4340; and any nine semester hours of upper-division classes with a PA prefix with the exception of PA 4V97, PA 4V98, and PA 4V99 or from the following list of courses: ECON 4320, ECON 4330, ECON 3370, ECON 3385, ECON 4342, PSCI 3326.

Sociology (B.A.)

Sociologists analyze the structure of groups in society and the way these groups influence the behavior of individuals. Related to these larger ideas are many specific questions: What explains inequalities? Why do crime and deviance arise? How do families, schools, churches, and corporations effect social control? What are the functions of welfare programs? How do cities grow and change to reflect changing technologies and population trends? How does law interact with society? These are examples of sociological questions.

The mission of the B.A. program in Sociology is to provide undergraduate students (both majors and non-majors) with broad knowledge of the theoretical concepts, empirical research findings, and methodological approaches of the discipline of sociology, with an emphasis on theory and research related to social inequality. The program objectives are that sociology majors should gain mastery of these concepts, findings, and approaches central to sociology, as well as develop basic skills in empirical analysis and professional communication in the analysis of social structures, processes, and institutions.

At The University of Texas at Dallas, sociology majors are encouraged to go beyond scholarly study to explore the ways that sociology can be put to use in businesses, government, or voluntary organizations. Sociology graduates of the university have pursued careers or graduate study in a variety of areas including policy research, social services, business, law, law enforcement, and other social sciences.

Bachelor of Arts in Sociology Degree Requirements (120 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (SOC 3306)²
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Sciences Elective (SOC 1301)
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 3 hours Mathematics (at or above level of College Algebra, recommended: MATH 1306 or 1314)
 - 4 hours Quantitative Reasoning (SOCS 3405)²
- E. Science (9 hours including at least one course with a substantial laboratory component)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parenthesis are the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements: 46 hours

- Major Preparatory Courses (3 hours)
 - ECON 2301 Principles of Macroeconomics
 - or ECON 2302 Principles of Microeconomics
- Major Core Courses (22 hours)
 - SOC 2319 Race, Gender, and Class
 - SOC 3303 Social Theory
 - SOC 3304 Research Methods in Sociology
 - SOC 3306 Professional Writing for Sociology²
 - SOC 4302 Class, Status, and Power
 - SOCS 3405 Introduction to Social Statistics with Lab²
 - One of the following:
 - SOC 3333 Religion in Society
 - SOC 3336 Culture Regions
 - SOC 4361 Law and Society
- Major Related Courses (27 hours)
 - 18 hours upper-division Sociology courses
 - 9 hours Major and Related electives³

² A Major requirement that also fulfills a Core Curriculum requirement. Hours are counted in Core Curriculum.

³ Most students take upper-division SOC courses. However, subject to advisor approval, courses from other disciplines may be used to satisfy this requirement.

III. Elective Requirements: 32 hours

Advanced Electives (6 hours)

All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites.

Free Electives (26 hours)

This requirement may be satisfied with lower- and upper-division courses from any field of study. Students must complete at least 51 hours of upper-division credit to qualify for graduation.

Minor in Sociology (18 hours)

For a minor in Sociology, students must take SOC 1301, SOC 3303, SOC 4302, and nine semester hours of upper-division classes with a SOC prefix with the exception of SOC 4V97, SOC 4V98, and SOC 4V99.

Erik Jonsson School of Engineering and Computer Science

Named in honor of one of the three founders of Texas Instruments, Inc. and of The University of Texas at Dallas, the Erik Jonsson School of Engineering and Computer Science provides undergraduate degree preparation for professional practice as an engineer or computer scientist. Particular emphasis is placed on developing strong analytical and problem solving abilities as a foundation for graduate study in these fields.

The school's curricula emphasize electronic information processing devices and technologies that are involved with the acquisition, interpretation, transmission, and utilization of information. The school offers five degree programs: Computer Engineering, Computer Science, Electrical Engineering, Software Engineering and Telecommunications Engineering. The Computer Science program emphasizes the design and analysis of efficient parallel and sequential algorithms with applications in VLSI layout and routing, distributed networks and operating systems, image processing, computational geometry, automation and robotics. The Software Engineering program concentrates on all aspects of software development including requirements engineering, software architecture and design, program testing, validation, and quality assurance. The Electrical Engineering program offers students an opportunity to acquire a solid foundation in the broad areas of electrical engineering and emphasizes advanced study in digital systems, telecommunications, and microelectronics. The Computer Engineering and Telecommunications Engineering programs are interdisciplinary as they require a blend of knowledge from the areas of Electrical Engineering and Computer Science.

All programs are based on a solid foundation of science and mathematics coursework. Students in these programs are given an opportunity to learn to extend their abilities to analyze and solve complex problems and to design new uses of technology to serve today's society. The Engineering programs provide an integrated educational experience directed toward the development of the ability to apply pertinent knowledge to the identification and solution of practical problems in engineering. These programs ensure that the design experience is developed and integrated throughout the curriculum in a sequential development leading to advanced work and includes both analytical and experimental studies. Established cooperative education programs with area industry further supplement design experiences.

The University of Texas at Dallas is located at the heart of a high concentration of companies that specialize in the areas of microelectronics, telecommunications, signal processing and optics. The Erik Jonsson School of Engineering and Computer Science maintains close relationships with these companies and has established cooperative programs through which students can obtain industrial experience to complement their classroom instruction. Details of specific cooperative programs between Computer Science and Engineering students and local companies are available in the respective program offices.

Industrial Practice Programs

The Industrial Practice Programs (IP Programs or IPP) of the Erik Jonsson School of Engineering and Computer Science include the school's Cooperative Education, Internship, and Curricular Practical Training Programs. These programs combine classroom learning with paid work experience. Qualified students are referred to participating employers seeking candidates for career-related, pre-professional work assignments. The programs enhance a student's education and career preparation by integrating classroom theory with on-the-job performance, providing an understanding of work environments and professional requirements, testing career and professional goals, developing confidence, maturity and skills in human relations, and establishing contacts and interests.

Students are expected to register with and follow the rules of the IP Programs when working in any position titled by the employer as an Internship or a Cooperative Education assignment. Also, the Jonsson School offers one credit hour ECSC courses that may fill UTD free elective requirements and provide students the opportunity to evaluate their work experience.

For more information about the IP programs, call (972)883-4363. The IP Programs Office is located in the Student Services suite (ECS South 2.502).

Department of Computer Science

Computer Science (B.S.) and Software Engineering (B.S.S.E)

Faculty

Professors: Farokh Bastani, Ramaswamy Chandrasekaran, Ding-Zhu Du, András Faragó, Gopal Gupta, Dung T. Huynh, Dan Moldovan, Simeon C. Ntafos, Balaji Raghavachari, Hsing-Mean (Edwin) Sha, Ivan H. Sudborough, Bhavani Thuraisingham, Klaus Truemper (Emeritus), I-Ling Yen, Kang Zang, Si-Qing Zheng

Associate Professors: Sergey Bereg, Lawrence Chung, Jorge A. Cobb, Ovidiu Daescu, Galigekere R. Dattatreya, Sanda Harabagiu, Vasileios Hatzivassiloglou, Jason Jue, Latifur Khan, Rym Mili, Ivor P. Page, B. Prabhakaran, Ravi Prakash, Haim Schweitzer, S. Venkatesan, Yuke Wang, W. Eric Wong

Assistant Professors: Joao Cangussu, Kendra M.L. Cooper, Jing Dong, Xiaohu Guo, Kevin Hamlen, Murat Kantarcioglu, Yang Liu, Ying Liu, Neeraj Mittal, Vincent Ng, Kamil Sarac, Weili Wu

Senior Lecturers: Tim Farage, Herman Harrison, Sam Karrah, Lawrence King, Greg Osbirn, Cort Steinhorst, Laurie Thompson, Nancy Van Ness

The Computer Science Department offers the B.S. degree in Computer Science and the B.S. degree in Software Engineering. Both are based on a solid foundation of mathematics, including calculus, linear algebra, and discrete mathematics. These programs of study are designed to offer students opportunities to prepare for an industrial, business, or governmental career in a rapidly changing profession and to prepare for graduate study in a field in which further education is strongly recommended. The two programs have the same basis in core computer science, including the analysis of algorithms and data structures, modern programming methodologies, and the study of operating systems. The Computer Science program continues with courses in advanced data structures, programming languages, telecommunications networks, and automata theory, while the Software Engineering program include courses in requirements engineering, software validation and testing, and software architecture, culminating in a challenging project course in which students must demonstrate use of software engineering techniques. Both programs offer a rich choice of elective studies, including courses in artificial intelligence, computer graphics, databases, and compiler design.

The school offers a "fast track" B.S. / M.S. option; see Fast Track Baccalaureate/Master's Degree Program.

Mission of the Department of Computer Science

The mission of the Department of Computer Science is to prepare undergraduate and graduate students for productive careers in industry, academia, and government by providing an outstanding environment for teaching, learning, and research in the theory and applications of computing. The Department places high priority on establishing and maintaining innovative research programs to enhance its education quality and make it an important regional, national, and international resource center for discovering, integrating, and applying new knowledge and technologies.

Goals for the Computer Science Program

The undergraduate Computer Science program is committed to provide students with a high-quality education and prepare them for long and successful careers in industry and government.

Our graduates, while eminently ready for immediate employment, will also be fully ready for focused training as required for specific positions in Computer Science and closely related areas. Graduates interested in highly technical careers, research, and/or academia will be fully prepared to further their education in graduate school.

Educational Objectives for the Computer Science Program

On completion of the BS program, students will:

1. have a comprehensive general education background;
 2. have solid knowledge in fundamental areas of Computer Science;
 3. have the ability to apply their knowledge to the solution of practical and useful problems;
-

4. have the ability to communicate effectively and work collaboratively;
5. be able to become successful professionals and, if they desire, be able to pursue graduate study;
6. recognize the need for lifelong learning and have the knowledge and skills that prepare them to adapt to rapid technological changes; and
7. understand the ethical, societal, and global issues associated with the computing field.

Bachelor of Science in Computer Science Degree Requirements (125 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Professional and Technical Communication (ECS 3390)²
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Science (ECS 3361)
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 6 hours Calculus (MATH 2413, 2414 or MATH 2417, 2419)³
- E. Science (9 hours)
 - 6 hours Lecture courses (PHYS 2325 and 2326)⁴
 - 2 hours Laboratory courses (PHYS 2125 and 2126)⁴
 - 4 hours Science Elective⁴

¹Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements: 62 hours

Major Preparatory Courses (18 hours beyond Core Curriculum)

- CS 1337 Computer Science I
- CS 2305 Discrete Mathematics for Computing I
- CS 2336 Computer Science II
- MATH 2413 Differential Calculus
or MATH 2417 Calculus I³
- MATH 2418 Linear Algebra
- MATH 2414 Integral Calculus
or MATH 2419 Calculus II³
- PHYS 2125 Physics Laboratory I⁴
- PHYS 2126 Physics Laboratory II⁴
- PHYS 2325 Mechanics⁴
- PHYS 2326 Electromagnetism and Waves⁴
- 4 hours Science Elective⁴

Major Core Courses (35 hours beyond Core Curriculum)

- CS 3305 Discrete Mathematics for Computing II
- CS 3340 Computer Architecture
- CS 3341 Probability and Statistics in Computer Science and Software Engineering
- CS 3345 Data Structures and Introduction to Algorithmic Analysis
- CS 3354 Software Engineering
- CS 4141 Digital Systems Laboratory
- CS 4337 Organization of Programming Languages
- CS 4341 Digital Logic and Computer Design
- CS 4348 Operating Systems Concepts

CS 4349 Advanced Algorithm Design and Analysis
CS 4384 Automata Theory
CS 4485 Computer Science Project
ECS 3361 Social Issues and Ethics in Computer Science and Engineering⁵
ECS 3390 Professional and Technical Communication²

Major Guided Electives (9 hours)

CS guided electives are 4000 level CS courses approved by the student's CS advisor. The following courses may be used as guided electives without the explicit approval of an advisor:

CS 4314 Intelligent Systems Analysis
CS 4315 Intelligent Systems Design
CS 4334 Numerical Analysis
CS 4336 Advanced Java
CS/SE 4347 Database Systems
CS 4352 Human Computer Interactions I
CS 4353 Human Computer Interactions II
CS 4361 Computer Graphics
CS 4365 Artificial Intelligence
CS 4375 Introduction to Machine Learning
CS 4376 Object-Oriented Programming Systems
CS 4386 Compiler Design
CS 4389 Data and Applications Security
CS 4390 Computer Networks
CS 4391 Introduction to Computer Vision
CS 4392 Computer Animation
CS 4393 Computer and Network Security
CS 4394 Implementation of Modern Operating Systems
CS 4396 Networking Laboratory
CS 4397 Embedded Computer Systems
CS 4398 Digital Forensics
CS 4399 Senior Honors in Computer Science/Software Engineering
EE 4325 Introduction to VLSI Design
SE 4351 Requirements Engineering
SE 4352 Software Architecture and Design
SE 4367 Software Testing, Verification, Validation and Quality Assurance
SE 4381 Software Project Planning and Management
SE 4485 Software Engineering Project

² Hours fulfill the communication elective of the Core Curriculum.

³ Six hours of Calculus are counted under Mathematics Core, and two hours of Calculus are counted as Major Preparatory Courses.

⁴ Nine hours of Science are counted under Science Core. Three hours are counted under Major Preparatory Courses. Students should consult an advisor for specific classes that satisfy this requirement.

⁵ Hours contribute to the Social and Behavioral Sciences component of the Core Curriculum

III. Elective Requirements: 21 hours

Advanced Electives (6 hours)

All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites.

Free Electives (15 hours)

All students must accumulate at least 120 hours of university credit to graduate. Both lower- and upper-division courses may count as free electives but students must complete at least 51 hours of upper-division credit to qualify for graduation. Not all courses offered by the University can be used as a free elective. Please consult with your advisor.

At least 9 hours of electives (out of the 21 hours required) must be outside Science and Engineering. At least 6 hours (out of the designated 21) should be in Humanities, Arts, and other areas that broaden the student's educational experience. Consult an advisor for specific classes.

Fast Track Baccalaureate/Master's Degrees

In response to the need for post-baccalaureate education in the exciting field of computer science, a Fast Track program is available to exceptionally well-qualified students who choose their courses carefully. At the end of five years of successful study, it is possible to earn both the B.S. and the M.S. degrees in Computer Science (or M.S. in Computer Science with Major in Software Engineering). Being within 30 hours of graduation, a student admitted to the graduate program and accepted into the Fast Track program may, during the senior year, take 15 graduate hours that may be used to complete the baccalaureate degree and also to satisfy requirements for the master's degree.

Interested students should see the Associate Dean of Undergraduate Education (ADU) for specific admission requirements to the Fast Track program.

Honors Programs

The Department of Computer Science offers upper-division Honors for outstanding students in both the B.S. in Computer Science and B.S. in Software Engineering degree programs. These programs offer special sections of designated classes and other activities designed to enhance the educational experience of exceptional students. Admission to the Honors programs requires a 3.50 or better GPA in at least 30 hours of coursework. Graduation with Honors requires a 3.50 or better GPA and completion of at least 6 honors classes, including a Senior Thesis or Senior Design Project class. For more details, contact the Office of Undergraduate Advising (ECS South 2.502; 972-883-2004).

Departmental Honors with Distinction may be awarded to students whose Senior Thesis or Senior Design Project is judged by a faculty committee to be of exemplary quality. Only students graduating with Departmental Honors are eligible. Thesis/projects must be submitted by the deadline that applies to M.S. Theses and Ph.D. Dissertations in the graduating semester to allow for proper evaluation. Students interested in Honors with Distinction are encouraged to start working on their thesis/project a year prior to graduation.

Minors

A minor in Computer Science requires 21 credit hours earned through the following courses:

- CS 1337 Computer Science I
- CS 2305 Discrete Mathematics for Computing I
- CS 2336 Computer Science II
- CS 3305 Discrete Mathematics for Computing II
- CS 3345 Data Structures and Introduction to Algorithmic Analysis
- CS 3354 Software Engineering
- CS 43XX Elective (any 4000-level organized CS class)

A minor in Information Assurance requires 30 credit hours earned through the following courses:

- CS 1337 Computer Science I
- CS 2305 Discrete Mathematics for Computing I
- CS 2336 Computer Science II
- CS 3305 Discrete Mathematics for Computing II
- CS 3345 Data Structures and Introduction to Algorithmic Analysis
- CS 4347 Database Systems
- CS 4348 Operating Systems Concepts
- CS 4389 Data and Applications Security
- CS 4393 Computer and Network Security
- CS 4398 Digital Forensics

Certificates

A Certificate in Information Assurance can be obtained by completing the following (as well as any required prerequisites):

- CS 4389 Data and Applications Security
 - CS 4393 Computer and Network Security
-

CS 4398 Digital Forensics

The certificate is intended for those individuals who are working in the industry and who already have background similar to a BS-CS degree. CS and SE majors that complete the required classes, as well as students that complete the Minor in Information Assurance will be awarded certificates in Information Assurance.

Goals of the Software Engineering Program

The focus of the Software Engineering degree is to provide world class education in modern software engineering. The overall goals of the Bachelor of Science in Software Engineering Program are:

1. To prepare students for software engineering positions in industry or government;
2. To prepare students for graduate study in Software Engineering; and
3. To provide a solid foundation in Computer Science and Software Engineering principles that will allow graduates to adapt effectively in a quickly changing field.

Educational Objectives of the Software Engineering Program

The current objectives for graduates of the Bachelor of Science in Software Engineering Program are to:

1. effectively apply knowledge of programming, algorithms, data structures, and software engineering to the development of complex software systems;
2. communicate technical concepts effectively in both written documents and oral presentations;
3. design and analyze software at the component, subsystem, and software architecture levels and make informed, sound software design tradeoffs;
4. understand the social and ethical issues that arise in their work and deal with them professionally;
5. understand the importance of all phases of the software lifecycle, with emphasis on the need to plan for change and continuously vie to improve the software process;
6. work effectively in a software development team and with other engineering professionals;
7. appreciate the need for lifelong learning and adapt to rapid technological changes.

Bachelor of Science in Software Engineering Degree Requirements (124 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Professional and Technical Communication (ECS 3390)²
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Science (ECS 3361)
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 6 hours Calculus (MATH 2413, 2414 or MATH 2417, 2419)³
- E. Science (9 hours)
 - 6 hours Lecture courses (PHYS 2325 and 2326)
 - 2 hours Laboratory courses (PHYS 2125 and 2126)
 - 4 hours Science Elective⁴

¹Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements: 64 hours

Major Preparatory Courses (18 hours beyond Core Curriculum)

- CS 1337 Computer Science I
- CS 2305 Discrete Mathematics for Computing I
- CS 2336 Computer Science II
- MATH 2413 Differential Calculus
or MATH 2417 Calculus 1³
- MATH 2418 Linear Algebra
- MATH 2414 Integral Calculus
or MATH 2419 Calculus II³
- PHYS 2125 Physics Laboratory I⁴
- PHYS 2126 Physics Laboratory II⁴
- PHYS 2325 Mechanics ⁴
- PHYS 2326 Electromagnetism and Waves⁴
- 4 hours Science Elective⁴

Major Core Courses (34 hours beyond Core Curriculum)

- ECS 3361 Social Issues and Ethics in Computer Science and Engineering ⁵
- ECS 3390 Professional and Technical Communication²
- SE 3306 Mathematical Foundations of Software Engineering
- SE 3340 Computer Architecture
- SE 3341 Probability and Statistics in Computer Science and Software Engineering
- SE 3345 Data Structures and Introduction to Algorithmic Analysis
- SE 3354 Software Engineering
- SE 4348 Operating Systems Concepts
- SE 4351 Requirements Engineering
- SE 4352 Software Architecture and Design
- SE 4367 Software Testing, Verification, Validation and Quality Assurance
- SE 4381 Software Project Planning and Management
- SE 4485 Software Engineering Project

Major Guided Electives (12 hours)

SE guided electives are 4000 level CS/SE courses approved by the student's CS/SE advisor. The following courses may be used as guided electives without the explicit approval of an advisor:

- CS 4141 Digital Systems Laboratory
- CS 4314 Intelligent Systems Analysis
- CS 4315 Intelligent Systems Design
- CS 4334 Numerical Analysis
- CS 4337 Organization of Programming Languages
- CS 4341 Digital Logic and Computer Design
- CS 4349 Advanced Algorithm Design and Analysis
- CS 4352 Human Computer Interactions I
- CS 4353 Human Computer Interactions II
- CS 4361 Computer Graphics
- CS 4365 Artificial Intelligence
- CS 4375 Introduction to Machine Learning
- CS 4384 Automata Theory
- CS 4386 Compiler Design
- CS 4389 Data and Applications Security
- CS 4390 Computer Networks
- CS 4391 Introduction to Computer Vision
- CS 4392 Computer Animation
- CS 4393 Computer and Network Security
- CS 4394 Implementation of Modern Operating Systems
- CS 4396 Networking Laboratory
- CS 4397 Embedded Computer Systems
- CS 4398 Digital Forensics

CS 4485 Computer Science Project
EE 4325 Introduction to VLSI Design
SE 4347 Database Systems
SE 4376 Object Oriented Programming Systems
SE 4399 Senior Honors in Computer Science/Software Engineering

Application Domains (9- hours)

An important aspect of Software Engineering education is the use of software engineering concepts in a particular application domain. Students should use two of their three guided electives to complete one of the applications domains below. Additional application domains may become available. Completing an application domain may require careful scheduling since many of these classes will not be offered every semester. It is strongly encouraged that you consult with an advisor.

Networks (9 hours)

CS 4390 Computer Networks
CS 4393 Computer and Network Security
CS 4396 Networking Laboratory

Information Assurance (9 hours)

CS 4389 Data and Applications Security
CS 4393 Computer and Network Security
CS 4398 Digital Forensics

Embedded Systems (9 hours)

CS 4141 Digital Systems Laboratory
CS 4341 Digital Logic and Computer Design
CS 4397 Embedded Computer Systems
SE 4348 Operating Systems Concepts

Computer Imaging (9 hours)

CS 4361 Computer Graphics
CS 4391 Introduction to Computer Vision
CS 4392 Computer Animation

Artificial Intelligence and Cognitive Modeling (9 hours; take 3 of 4)

CS 4314 Intelligent Systems Analysis
CS 4315 Intelligent Systems Design
CS 4365 Artificial Intelligence
CS 4375 Introduction to Machine Learning

Human-Computer Interaction (9 hours)

CS 4352 Human Computer Interactions I
CS 4353 Human Computer Interactions II
CS 4361 Computer Graphics

² Hours fulfill the communication elective of the Core Curriculum.

³ Six hours of Calculus are counted under Mathematics Core, and two hours of Calculus are counted as Major Preparatory Courses.

⁴ Nine hours of Science are counted under Science Core. Three hours are counted as Major Preparatory Courses. Students should consult an advisor for specific classes that satisfy this requirement.

⁵ Hours contribute to the Social and Behavioral Sciences component of the Core Curriculum

III. Elective Requirements: 18 hours

Advanced Electives (6 hours)

All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites.

Free Electives (12 hours)

All students must accumulate at least 124 hours of university credit to graduate. Both lower- and upper-division courses may count as free electives but students must complete at least 51 hours of upper-division credit to qualify for graduation. Not all courses offered by the University can be used as a free elective. Please consult with your advisor.

Fast Track Baccalaureate/Master's Degrees

In response to the need for post-baccalaureate education in the exciting field of software engineering, a Fast Track program is available to exceptionally well-qualified students who choose their courses carefully. At the end of five years of successful study, it is possible to earn both the B.S. degree in Software Engineering and the M.S. degree in Computer Science or the M.S. degree in Computer Science with Major in Software Engineering. Being within 30 hours of graduation, a student admitted to the graduate program and accepted into the Fast Track program may, during the senior year, take 15 graduate hours that may be used to complete the baccalaureate degree and also to satisfy the requirements for the master's degree.

Interested students should see the Associate Dean of Undergraduate Education (ADU) for specific admission requirements to the Fast Track program.

Honors Programs

The Department of Computer Science offers upper-division Honors for outstanding students in both the B.S. in Computer Science and B.S. in Software Engineering degree programs. These programs offer special sections of designated classes and other activities designed to enhance the educational experience of exceptional students. Admission to the Honors programs requires a 3.50 or better GPA in at least 30 hours of coursework. Graduation with Honors requires a 3.50 or better GPA and completion of at least 6 honors classes, including a Senior Thesis or Senior Design Project class. For more details, contact the Office of Undergraduate Advising (ECS South 2.502; 972-883-2004).

Departmental Honors with Distinction may be awarded to students whose Senior Thesis or Senior Design Project is judged by a faculty committee to be of exemplary quality. Only students graduating with Departmental Honors are eligible. Thesis/projects must be submitted by the deadline that applies to M.S. Theses and Ph.D. Dissertations in the graduating semester to allow for proper evaluation. Students interested in Honors with Distinction are encouraged to start working on their thesis/project a year prior to graduation.

Minors

A minor in Software Engineering requires 21 credit hours earned through the following courses:

- CS 1337 Computer Science I
- CS 2305 Discrete Mathematics for Computing I
- CS 2336 Computer Science II
- SE 3306 Mathematical Foundations of Software Engineering
- SE 3345 Data Structures and Introduction to Algorithmic Analysis
- SE 3354 Software Engineering
- SE 43XX Elective (any 4000-level organized SE class)

Department of Electrical Engineering

Electrical Engineering (B.S.E.E.)

Faculty

Professors: Naofal Al-Dhahir, Larry P. Ammann, Poras T. Balsara, Andrew Blanchard, Cyrus D. Cantrell III, Yves Chabal, David E. Daniel, John P. Fonseka, William R. Frensley, Andrea F. Fumagelli, Bruce Gnade, John H.L. Hansen, C.R. Helms, Louis R. Hunt, Nasser Kehtarnavaz, Kamran Kiasaleh, Gil S. Lee, Philipos C. Loizou, Duncan L. MacFarlane, Raimund J. Ober, Lawrence J. Overzet, William J. Pervin, Carl Sechen, Don W. Shaw (Emeritus), Lakshman S. Tamil, Robert M. Wallace, Dian Zhou

Associate Professors: Dinesh Bhatia, Gerald O. Burnham, KJ Cho, Matthew J. Goeckner, Jiyoung Kim, Jeong-Bong Lee, Jin Liu, Won Namgoong, Aria Nosratinia, Mehrdad Nourani, Mohammad Saquib, Murat Torlak, Eric M. Vogel

Assistant Professors: Bhaskar Banerjee, Rashaunda Henderson, Walter Hu, Roozbeh Jafari, Hoi Lee, Hlaing Minn, Issa Panahi, Rama Sangireddy

Research Professor: Vojin G. Oklobdzija

Senior Lecturers: Charles Bernardin, William W. Boyd, Nathan B. Dodge, Edward J. Esposito, Muhammad A. Kalam, Randall E. Lehman, P. K. Rajasekaran, Ricardo Saad, Marco Tacca

The Electrical Engineering Department offers a bachelor's degree in Electrical Engineering. The Electrical Engineering program offers students an opportunity to acquire a solid foundation in the broad areas of electrical engineering and emphasizes advanced study in digital systems, telecommunications, and microelectronics.

The Electrical Engineering program offers students a solid educational foundation in the areas of electrical networks, electronics, electromagnetics, computers, digital systems, and communications and is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). Mastery of these areas provides students with the ability to adapt and maintain leadership roles in their post-baccalaureate pursuits through the application of fundamental principles to a rapidly changing and growing discipline.

Students in the Electrical Engineering program a broad general program in electrical engineering and can then take advanced courses in computer hardware and software; the analysis and design of analog and digital communication systems; analog and digital signal processing; the analysis, design, and fabrication of microelectronic components and systems; and guided and unguided wave propagation. A broad choice of electives (within and external to electrical engineering) allows students to broaden their education as well as develop expertise in areas of particular interest. In keeping with the role of a professional, students are expected to develop communication skills and an awareness of the relationship between technology and society.

The Electrical Engineering program is based on a solid foundation of science and mathematics coursework. Students in this program are given an opportunity to learn and extend their abilities to analyze and solve complex problems and to design new uses of technology to serve today's society. The engineering programs at UTD provide an integrated educational experience directed toward the development of the ability to apply pertinent knowledge to the identification and solution of practical problems in Electrical and other related engineering fields. These programs ensure that the design experience, which includes both analytical and experimental studies, is integrated throughout the curriculum in a sequential development leading to advanced work. Design problems are frequently assigned in both lecture and laboratory courses. Each student is required to complete a major design project during the senior year. In addition, established cooperative education programs with area industry further supplement design experiences.

Mission of the Electrical Engineering Program

The focus of the Electrical Engineering degree is to provide excellent education in modern electrical engineering practice. Our graduates are uniquely qualified for rewarding and successful careers in materials, devices, circuits, digital systems, signal processing, and communications. In the spring of 2005 the EE faculty adopted a new set of Program Educational objectives which refined the prior objectives and established measurements and benchmarks to monitor progress. The ECS Office of Assessment developed a new Alumni Survey instrument to measure progress toward these objectives and conducted a preliminary survey to collect data. The results of this survey should be available in the fall of 2005. The Electrical Engineering faculty will set the thresholds for performance based on this survey in the fall of 2005.

Specific Program Educational Objectives

One broad goal for the Erik Jonsson School is an excellent education for our students. Our earlier Program Educational Objectives (PEOs) toward this goal are:

- Preparation for a successful, long-lived, engineering career
 - Perform, review and assess sophisticated engineering design and manufacturing
 - Further the necessities of innovation, functionality, safety, and economy in engineering
 - Critical thinking, decision making and communicating
 - Ability to contribute and to lead engineering teams
-

- Place engineering design and decision making in a market and societal context.

Additional Program Educational Objectives for a high quality educational infrastructure include:

- Growing and maintaining an outstanding faculty that remains motivated and empowers
- Excellent facilities, including teaching laboratories, computing facilities and classrooms with advanced presentation capabilities.

Our most recent set of Program Educational Objectives and the measurement associated with each is listed below:

- **A successful long-lived engineering career.** *Measurement:* The percentage of our graduates still working as engineers five (5) years after graduation.
- **Meeting the needs of local industry.** *Measurement:* The percentage of our graduates receiving job offers from the top twenty (20) local engineering firms.
- **Leading engineering teams.** *Measurement:* The percentage of our graduates lead engineering design team supervising two or more engineers in a designing effort within five (5) years after graduation.
- **Actively use engineering skills to mentor and promote the engineering profession in populations still underrepresented in it.** *Measurement:* The percentage of our graduates involved in such activities within five (5) years after graduation.
- **Actively pursuing life-long learning.** *Measurement:* The percentage of our graduates either attending graduate school or taking additional college level course work to enhance their skills five (5) years after graduation.

High School Preparation

Engineering education requires a strong high school preparation. Pre-engineering students should have high school preparation of at least one-half year in trigonometry and at least one year each in elementary algebra, intermediate and advanced algebra, plane geometry, chemistry, and physics, thus developing their competencies to the highest possible levels and preparing to move immediately into demanding college courses in calculus, calculus-based physics, and chemistry for science majors. It is also essential that pre-engineering students have the competence to read rapidly and with comprehension, and to write clearly and correctly.

Lower-Division Study

All lower-division students in either Electrical Engineering or Telecommunications Engineering concentrate on mathematics, science and introductory engineering courses, building competence in these cornerstone areas for future application in upper-division engineering courses. The following requirements apply both to students seeking to transfer to U.T. Dallas from other institutions as well as to those currently enrolled at U.T. Dallas, whether in another school or in the Erik Jonsson School of Engineering and Computer Science.

ABET Requirements

All engineering degree plans must satisfy the requirements specified by the Accreditation Board for Engineering and Technology (ABET). The course work must include at least:

- 1) One year (32 SCH) of an appropriate combination of mathematics and basic sciences,
- 2) One and one-half years (48 SCH) of engineering topics.
- 3) A general education component that complements the technical content.

Although the electrical engineering and telecommunications engineering curricula that follow have been designed to meet these criteria, students have the responsibility, in consultation with an advisor, to monitor their own choice of courses carefully to be certain that all academic requirements for graduation are being satisfied. Students are strongly encouraged to take courses in such subjects as accounting, industrial management, finance, personnel administration, and engineering economy.

Academic Progress in Electrical Engineering

In order to make satisfactory academic progress as an Electrical Engineering major, a student must meet all University requirements for academic progress, and must earn a grade of C- or better in each of the major core courses. No "Major Requirement" course (as listed under Section II of the B.S.E.E. degree requirement) may be taken until the student has obtained a grade of C- or better in each of the prerequisites (if a higher grade requirement is stated for a specific class, the higher requirement applies).

Bachelor of Science in Electrical Engineering Degree Requirements (128 hours)

I. Core Curriculum Requirements¹: 42 hoursI. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Professional and Technical Communication (ECS 3390)⁵
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Science elective (ECS 3361)
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 6 hours Calculus (MATH 2417 and 2419)²
- E. Science (9 hours)
 - 8 hours Physics (PHYS 2325, 2125, 2326 and 2126)
 - 4 hours Chemistry (CHEM 1311 and 1111)³

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements: 74 hours⁴

- Major Preparatory Courses (20 hours beyond Core Curriculum)
 - CHEM 1111 General Chemistry Laboratory ^{3, 4}
 - CHEM 1311 General Chemistry ^{3, 4}
 - CS 1337 Computer Science I
 - EE 1102 Introduction to Experimental Techniques
 - EE 2110 Introduction to Digital Systems Laboratory
 - EE 2300 Linear Algebra for Engineers
 - EE 2310 Introduction to Digital Systems
 - MATH 2417 Calculus I²
 - MATH 2419 Calculus II²
 - MATH 2420 Differential Equations with Applications
 - PHYS 2125 Physics Laboratory I
 - PHYS 2126 Physics Laboratory II
 - PHYS 2325 Mechanics
 - PHYS 2326 Electromagnetism and Waves
- Major Core Courses (45 hours beyond Core Curriculum)
 - ECS 3361 Social Issues and Ethics in Computer Science and Engineering ⁶
 - ECS 3390 Professional and Technical Communication⁵
 - EE 3101 Electrical Network Analysis Laboratory
 - EE 3102 Signals and Systems Laboratory
 - EE 3110 Electronic Devices Laboratory
 - EE 3111 Electronic Circuits Laboratory
 - EE 3120 Digital Circuits Laboratory
 - EE 3150 Communications Systems Laboratory

EE 3300 Advanced Engineering Mathematics
 EE 3301 Electrical Network Analysis
 EE 3302 Signals and Systems
 EE 3310 Electronic Devices
 EE 3311 Electronic Circuits
 EE 3320 Digital Circuits
 EE 3341 Probability Theory and Statistics
 EE 3350 Communications Systems
 EE 4301 Electromagnetic Engineering I
 EE 4310 Systems and Controls
 EE 4368 RF Circuit Design Principles
 EE 4388 Senior Design Project I
 EE 4389 Senior Design Project II

Major Guided Electives (9 hours)

Students pursuing the general program take 9 semester hours from either list below.

Students pursuing a concentration in Microelectronics take 3 of the following courses:

EE 4302 Electromagnetic Engineering II
 EE 4304 Computer Architecture
 EE 4325 Introduction to VLSI Design
 EE 4330 Integrated Circuit Technology
 EE 4340 Analog Integrated Circuit Analysis and Design
 EE 4341 Digital Integrated Circuit Analysis and Design
 EE 4391 Technology of Plasma Class and Laboratory

Students pursuing a concentration in Telecommunications take 3 of the following courses:

EE 4360 Digital Communications
 EE 4361 Introduction to Digital Signal Processing
 EE 4365 Introduction to Wireless Communication
 EE 4367 Telecommunications Networks
 EE 4390 Computer Networks
 EE 4392 Introduction to Optical Systems

² Six hours of Calculus are counted under Mathematics Core, and two hours of Calculus are counted as Major Preparatory Courses.

³ One hour of Chemistry is counted under Science core, and three hours are counted as Major Preparatory Courses.

⁴ Students must pass each of the EE, CS, Math and Science courses listed in this degree plan and each of their prerequisites, with a grade of C- or better.

⁵ Hours fulfill the communication component of the Core Curriculum

⁶ Hours contribute to the Social and Behavioral Sciences component of the Core Curriculum

III. Elective Requirements: 12 hours

Advanced Electives (6 hours)

All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites.

Free Electives (6 hours)

Both lower- and upper-division courses may count as free electives but students must complete at least 51 hours of upper-division credit to qualify for graduation. Not all courses offered by the University can be used as a free electives. Please consult with your advisor.

Fast Track Baccalaureate/Master's Degrees

In response to the need for advanced education in electrical engineering, a Fast Track program is available to exceptionally well-qualified U.T. Dallas undergraduate students who meet the requirements for admission to the graduate school. The Fast Track program is designed to accelerate a student's education so that both a B.S.E.E. and an M.S.E.E. degree can be earned in five years of full-time study. This is accomplished by (1) taking courses (typically electives) during one or more summer semesters, and (2) beginning graduate course work during the senior year. Details of the requirements for admission to this program are available from the Associate Dean.

Honors Program

The Department of Electrical Engineering offers upper-division Honors for outstanding students in the B.S. Electrical Engineering degree program. This program offers special sections of designated classes and other activities designed to enhance the educational experience of exceptional students. Admission to the Honors programs requires a 3.50 or better GPA in at least 30 hours of coursework. Graduation with Honors requires a 3.50 or better GPA and completion of at least 6 honors classes. These honors classes must include either Senior Honors in Electrical Engineering (EE 4399) or Undergraduate Research in Electrical Engineering (EE 4V98) and a Senior Honors Thesis must be completed within one of those two classes. (While the topics may be related, the Senior Thesis does not replace the need for the student to complete a regular Senior Design Project). The other 5 honors classes can come from a mixture of Graduate level (up to a count of 4) classes and special honor sections of regular undergraduate EE classes (up to a count of 2). Current undergraduate honors courses include but are not limited to EE 2310(H), EE 3350(H), EE 4302, EE 4399, and EE 4V98. Course grades in the 6 honors classes used to determine Honors status must be B- or higher to qualify.

Departmental Honors with Distinction may be awarded to students whose Senior Honors Thesis is judged by a faculty committee to be of exemplary quality. Only students graduating with Departmental Honors are eligible. Thesis/projects must be submitted by the deadline that applies to M.S. Theses in the graduating semester to allow for proper evaluation. Students interested in Honors with Distinction are encouraged to start working on their thesis/project a year prior to graduation.

Minors

The Department of Electrical Engineering does not offer minors at this time.

Interdisciplinary Programs

The Erik Jonsson School of Engineering and Computer Science offers Bachelor of Science programs in Computer Engineering and in Telecommunications Engineering. These programs are delivered by faculty from the Department of Computer Science and Electrical Engineering and are led by Program Heads, Drs. William Pervin for the Computer Engineering Program and Andrea Fumagalli for the Telecommunications Engineering Program.

Computer Engineering (B.S.C.E.)

Affiliated Faculty

Professors: Poras T. Balsara, Cyrus D. Cantrell III, R. Chandrasekaran, Kamaran Kiasaleh, Vojin Oklobdzija, William J. Pervin, Carl Sechen, Edwin Sha, Kang Zhang, S.Q. Zheng, Dian Zhou

Associate Professors: Dinesh K. Bhatia, Jorge Cobb, G. R. Dattatreya, Mehrdad Nourani, Ivor Page, Ravi Prakash, S. Venkatesan, Yuke Wang

Assistant Professors: Roozbeh Jafari, Issa Panahi, Rama Sangireddy

Senior Lecturers: Nathan Dodge

The Computer Engineering program is interdisciplinary. It was designed by the combined faculties of the Computer Science Department and the Electrical Engineering Department. Computer Engineering requires a blend of knowledge from the areas of hardware (Electrical Engineering) and software (Computer Science). The focus of the Computer Engineering degree is to provide excellent education in modern computer systems and prepare its graduates for outstanding careers in the rapidly changing and growing profession and for further continuing education.

The Computer Engineering program is based on a solid foundation of science and mathematics coursework. Students in this program are given an opportunity to learn to extend their abilities to analyze and solve complex problems and to design new uses of technology to serve today's society. This program provides an integrated education experience directed toward the development of the ability to apply pertinent knowledge to the identification and solution of practical problems in computer engineering.

The Computer Engineering curriculum ensures that the design experience, which includes both analytical and experimental studies, is integrated throughout in a sequential development leading to advanced work. Design problems are frequently assigned in both lecture and laboratory courses. Each student is required to complete a major design project during the senior

year. In addition, established cooperative education programs with area industries may further supplement a student's design experiences.

Mission of the Computer Engineering (CE) Program

The mission of the Computer Engineering Program is to provide education in the theory and practice of modern computer engineering. We will prepare our graduates to have rewarding and successful careers in a diverse range of computer engineering fields, including materials, devices, circuits, digital systems, signal/speech processing, and communications.

CE Undergraduate Program Educational Objectives (PEOs)

The focus of the Computer Engineering degree at U.T. Dallas is to provide excellent education in both computer science and electrical engineering. Our graduates shall be uniquely qualified to apply traditional engineering design and problem solving skills to modern computer systems comprising both hardware and software components.

Additional PEOs:

- Preparation for a successful, long-lived, engineering career
- Perform, review and assess sophisticated engineering design and manufacturing
- Further the necessities of innovation, functionality, safety, and economy in engineering
- Critical thinking, decision making and communicating
- Ability to contribute and to lead engineering teams

High School Preparation

Engineering education requires a strong high school preparation. Pre-engineering students should have high school preparation of at least one-half year in trigonometry and at least one year each in elementary algebra, intermediate and advanced algebra, plane geometry, chemistry, and physics, thus developing their competencies to the highest possible levels and preparing them to move immediately into demanding college courses in calculus, calculus-based physics, and chemistry for science majors. Pre-Computer Engineering students should have some experience with elementary programming in a high level language such as C, C++, or Java. It is also essential that pre-engineering students have the competence to read rapidly and with comprehension, and to write clearly and correctly.

Lower-Division Study

All lower-division students in Computer Engineering concentrate on mathematics, science, and introductory engineering courses, building competence in these cornerstone areas for future application in upper-division engineering courses. The following requirements apply both to students seeking to transfer to U.T. Dallas from other institutions as well as to those currently enrolled at U.T. Dallas, whether in another school or in the Erik Jonsson School of Engineering and Computer Science.

ABET Requirements

All engineering degree plans must satisfy the requirements specified by the Accreditation Board for Engineering and Technology (ABET). The course work must include at least:

1. One year (32 SCH) of an appropriate combination of mathematics and basic sciences;
2. One and one-half years (48 SCH) of engineering topics;
3. A general education component that complements the technical content.

Although the computer engineering curriculum that follows has been designed to meet these criteria, students have the responsibility, in consultation with an advisor, to monitor their own choice of courses carefully to be certain that all academic requirements for graduation are being satisfied.

Academic Progress in Computer Engineering

In order to make satisfactory academic progress as a Computer Engineering major, a student must meet all University requirements for academic progress, and must earn a grade of C- or better in each of the major core courses. No "Major Requirement" course (as listed under Section II of the B.S.C.E. degree requirement) may be taken until the student has obtained a grade of C- or better in each of the prerequisites (if a higher grade requirement is stated for a specific class, the higher requirement applies).

Bachelor of Science in Computer Engineering Degree Requirements (126 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Professional and Technical Communication (ECS 3390)
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Science elective (ECS 3361)
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 6 hours Calculus (MATH 2417 and 2419)²
- E. Science (9 hours)
 - 8 hours Physics (PHYS 2325, 2125, 2326 and 2126) or (PHYS 2421 and 2422)
 - 1 hour Science (CE/EE/TE 1102)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education with the approval of an advisor. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

² Six hours of Calculus are counted under the Mathematics Core (D) above, and two hours of Calculus are counted as Major Preparatory Courses.

II. Major Requirements: 75 hours

Major Preparatory Courses (19 hours including 2 listed above in Core Curriculum)

- CE 1337 Computer Science I
- CE 2110 Introduction to Digital Systems Laboratory
- CE 2300 Linear Algebra for Engineers
- CE 2310 Introduction to Digital Systems
- CE 2336 Computer Science II
- MATH 2420 Differential Equations With Applications

Major Core Courses (56 hours beyond Core Curriculum)

- CE 3101 Electrical Network Analysis Laboratory
- CE 3102 Signals and Systems Laboratory
- CE 3110 Electronic Devices Laboratory
- CE 3111 Electronic Circuits Laboratory
- CE 3120 Digital Circuits Laboratory
- CE 3300 Advanced Engineering Mathematics
- CE 3301 Electrical Network Analysis
- CE 3302 Signals and Systems
- CE 3307 Discrete Mathematics
- CE 3310 Electronic Devices
- CE 3311 Electronic Circuits
- CE 3320 Digital Circuits
- CE 3341 Probability Theory and Statistics
- CE 3346 Computer Algorithms and Data Structures
- CE 3354 Software Engineering

CE 4304 Computer Architecture
CE 4337 Organization of Programming Languages
CE 4348 Operating Systems Concepts
CE 4370 Embedded Microprocessor Systems
CE 4388 Senior Design Project I
CE 4389 Senior Design Project II
CE 4390 Computer Networks

III. **Elective Requirements: 9 hours**

Advanced Electives (6 hours)

All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites.

Free Electives (3 hours)

Both lower- and upper-division courses may count as free electives, but students must complete at least 51 hours of upper-division credit to qualify for graduation. Not all courses offered by the University can be used as a free elective. Please consult with your advisor.

Fast Track Baccalaureate/Master's Degrees

In response to the need for advanced education in computer engineering, a Fast Track program is available to exceptionally well-qualified U.T. Dallas undergraduate students who meet the requirements for admission to the graduate school. The Fast Track program is designed to accelerate a student's education so that both a B.S.C.E. and an M.S.C.E. degree can be earned in five years of full-time study. This is accomplished by (1) taking courses (typically electives) during one or more summer semesters, and (2) beginning graduate course work during the senior year. Details of the requirements for admission to this program are available from the Associate Dean's office.

Honors Program

The Computer Engineering Program offers upper-division Honors for outstanding students in the B.S. Computer Engineering degree program. This program offers special sections of designated classes and other activities designed to enhance the educational experience of exceptional students. Admission to the Honors programs requires a 3.50 or better GPA in at least 30 hours of coursework. Graduation with Honors requires a 3.50 or better GPA and completion of at least 6 honors classes. These honors classes must include either Senior Honors in Computer Engineering (CE 4399) or Undergraduate Research in Computer Engineering (CE 4V98) and a Senior Honors Thesis must be completed within one of those two classes. (While the topics may be related, the Senior Thesis does not replace the need for the student to complete a regular Senior Design Project.) The other 5 honors classes can come from a mixture of Graduate level (up to a count of 4) classes and special honor sections of regular undergraduate CE classes (up to a count of 2). Current undergraduate honors courses include but are not limited to: CE 2310(H), CE 4334, CE 4372, CE 4399, and CE 4V98. Course grades in the 6 honor classes used to determine Honors status must be B- or higher to qualify.

Departmental Honors with Distinction may be awarded to students whose Senior Honors Thesis is judged by a faculty committee to be of exemplary quality. Only students graduating with Departmental Honors are eligible. Thesis/projects must be submitted by the deadline that applies to M.S. Theses in the graduating semester to allow for proper evaluation. Students interested in Honors with Distinction are encouraged to start working on their thesis/project a year prior to graduation.

Minors

The School of Engineering and Computer Science does not offer a minor in Computer Engineering at this time.

Telecommunications Engineering (B.S.T.E.)

Affiliated Faculty

Professors: Farokh Bastani, Cyrus D. Cantrell III, Andras Farago, Andrea F. Fumagelli, John L. Hansen, Kamran Kiasaleh, Philipos C. Loizou, Duncan L. MacFarlane, William Pervin, Balaji Raghavachari, Lakshman Tamil, S.Q. Zheng

Associate Professors: Jorge Cobb, Jason Jue, Latifur Khan, Aria Nosratinia, Balakrishnan Prabhakaran, Ravi Prakash, Mohammad Saquib, Murat Torlak, S. Venkatesan, Yuke Wang, Eric Wong

Assistant Professors: Neeraj Mittal, Kamil Sarac

Senior Lecturers: Charles Bernardin, William Boyd, Nathan Dodge, Muhammad Kalam, PK Rajasekaran, Marco Tacca

The Telecommunications Engineering program is interdisciplinary. Telecommunications Engineering requires a blend of knowledge from the areas of Electrical Engineering, Computer Science, and Economics/Policy. The focus of the Telecommunications Engineering degree is to provide excellent education in modern communications networks and systems and prepare the students for outstanding careers in telecommunications, data communications, network architecture, wireless, and optical networking.

The Electrical and Telecommunications Engineering programs are based on a solid foundation of science and mathematics coursework. Students in these programs are given an opportunity to learn to extend their abilities to analyze and solve complex problems and to design new uses of technology to serve today's society. The engineering programs provide an integrated educational experience directed toward the development of the ability to apply pertinent knowledge to the identification and solution of practical problems in electrical and telecommunications engineering. These programs ensure that the design experience, which includes both analytical and experimental studies, is integrated throughout the curriculum in a sequential development leading to advanced work. Design problems are frequently assigned in both lecture and laboratory courses. Each student is required to complete a major design project during the senior year. In addition, established cooperative education programs with area industry further supplement design experiences.

Mission of the Telecommunications Engineering (TE) Program

The focus of the Telecommunications Engineering degree is to provide excellent education in modern communications networks and systems. Our graduates are trained in a variety of subfields of telecommunications engineering at the systems level. This prepares them for rewarding and successful careers in telecommunications, data communications, network architecture, wireless, optical networking and next generation networks.

TE Undergraduate Program Educational Objectives (PEOs)

The focus of the UTD's Telecommunications Engineering degree is to provide excellent education in modern communications networks and systems. Our graduates shall be uniquely qualified to apply traditional engineering design and problem solving skills in modern telecommunications.

Additional Program Educational Objectives

- Preparation for a successful, long-lived, engineering career
 - Perform, review and assess sophisticated engineering design and manufacturing
 - Further the necessities of innovation, functionality, safety, and economy in engineering
 - Critical thinking, decision making and communicating
 - Ability to contribute and to lead engineering teams
 - Place engineering design and decision making in a market and societal context.
 - Growing and maintaining an outstanding faculty that remains motivated and empowers
 - Excellent facilities, including teaching laboratories, computing facilities and classrooms with advanced presentation capabilities.
-

High School Preparation

Engineering education requires a strong high school preparation. Pre-engineering students should have high school preparation of at least one-half year in trigonometry and at least one year each in elementary algebra, intermediate and advanced algebra, plane geometry, chemistry, and physics, thus developing their competencies to the highest possible levels and preparing to move immediately into demanding college courses in calculus, calculus-based physics, and chemistry for science majors. It is also essential that pre-engineering students have the competence to read rapidly and with comprehension, and to write clearly and correctly.

Lower-Division Study

All lower-division students in either Electrical Engineering or Telecommunications Engineering concentrate on mathematics, science and introductory engineering courses, building competence in these cornerstone areas for future application in upper-division engineering courses. The following requirements apply both to students seeking to transfer to U.T. Dallas from other institutions as well as to those currently enrolled at U.T. Dallas, whether in another school or in the Erik Jonsson School of Engineering and Computer Science.

ABET Requirements

All engineering degree plans must satisfy the requirements specified by the Accreditation Board for Engineering and Technology (ABET). The course work must include at least:

- 1) One year (32 SCH) of an appropriate combination of mathematics and basic sciences,
- 2) One and one-half years (48 SCH) of engineering topics.
- 3) A general education component that complements the technical content.

Although the electrical engineering and telecommunications engineering curricula that follow have been designed to meet these criteria, students have the responsibility, in consultation with an advisor, to monitor their own choice of courses carefully to be certain that all academic requirements for graduation are being satisfied. Students are strongly encouraged to take courses in such subjects as accounting, industrial management, finance, personnel administration, and engineering economy.

Academic Progress in Telecommunications Engineering

In order to make satisfactory academic progress as a Telecommunications Engineering major, a student must meet all University requirements for academic progress, and must earn a grade of C- or better in each of the major core courses. No "Major Requirement" course (as listed under Section II of the B.S.T.E. degree requirement) may be taken until the student has obtained a grade of C- or better in each of the prerequisites (if a higher grade requirement is stated for a specific class, the higher requirement applies).

Bachelor of Science in Telecommunications Engineering Degree Requirements (125 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Professional and Technical Communication (ECS 3390)⁵
 - B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Science elective (ECS 3361)
 - C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
 - D. Mathematics and Quantitative Reasoning (6 hours)
 - 6 hours Calculus (MATH 2417 and 2419)²
-

- E. Science (9 hours)
8 hours Physics (PHYS 2325, 2125, 2326 and 2126)³
4 hours Chemistry (CHEM 1311 and 1111)³

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements: 71 hours⁴

Major Preparatory Courses (16 hours beyond Core Curriculum)

- CHEM 1111 General Chemistry Laboratory I³
- CHEM 1311 General Chemistry I³
- CS 1337 Computer Science I
- CS 2336 Computer Science II
- EE 1102 Introduction to Experimental Techniques
- MATH 2417 Calculus I²
- MATH 2419 Calculus II²
- MATH 2420 Differential Equations With Applications
- PHYS 2125 Physics Laboratory I³
- PHYS 2126 Physics Laboratory II³
- PHYS 2325 Mechanics³
- PHYS 2326 Electromagnetism and Waves³

Major Core Courses (55 hours beyond Core Curriculum)

- CS 3340 Computer Architecture
- CS 4141 Digital Systems Laboratory
- CS 4341 Digital Logic and Computer Design
- ECS 3361 Social Issues and Ethics in Computer Science and Engineering⁵
- ECS 3390 Professional and Technical Communication⁵
- EE 3150 Communications Systems Laboratory
- EE 3300 Advanced Engineering Mathematics
- EE 3350 Communications Systems
- EE 4360 Digital Communications
- EE 4361 Introduction to Digital Signal Processing
- TE 3101 Electrical Network Analysis Laboratory
- TE 3102 Signals and Systems Laboratory
- TE 3301 Electrical Network Analysis
- TE 3302 Signals and Systems
- TE 3307 Discrete Mathematics
- TE 3341 Probability Theory and Statistics
- TE 3346 Computer Algorithms and Data Structures
- TE 4348 Operating Systems Concepts
- TE 4365 Introduction to Wireless Communication
- TE 4367 Telecommunication Networks
- TE 4388 Senior Design Project I
- TE 4389 Senior Design Project II
- TE 4390 Computer Networks

² Six hours of Calculus are counted under Mathematics Core above, and two hours of Calculus are counted as Major Preparatory Courses.

³ Nine hours of science are counted under Science Core. Three hours are counted under Major Preparatory Courses.

⁴ Students must have passed each of the CS, Math, Science, EE and TE courses listed above, and each of their prerequisites, with a grade of C- or better.

⁵ Hours fulfill the communication component requirement of the Core Curriculum

⁶ Hours contribute to the Social and Behavioral Sciences component of the Core Curriculum

III. Elective Requirements: 12 hours

Advanced Electives (6 hours)

All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites.

Free Electives (6 hours)

Both lower-and upper division courses may count as free electives, but students must complete at least 51 hours of upper-division credit to qualify for graduation. Not all courses offered by the University can be used as a free elective. Please consult with your advisor.

Fast Track Baccalaureate/Master's Degrees

In response to the need for advanced education in electrical engineering, a Fast Track program is available to exceptionally well-qualified U.T. Dallas undergraduate students who meet the requirements for admission to the graduate school. The Fast Track program is designed to accelerate a student's education so that both a B.S.E.E. and an M.S.E.E. degree can be earned in five years of full-time study. This is accomplished by (1) taking courses (typically electives) during one or more summer semesters, and (2) beginning graduate course work during the senior year. Details of the requirements for admission to this program are available from the Associate Dean's Office.

Honors Program

The Telecommunications Engineering Program offers upper-division Honors for outstanding students in the B.S. Telecommunications Engineering degree program. This program offers special sections of designated classes and other activities designed to enhance the educational experience of exceptional students. Admission to the Honors programs requires a 3.50 GPA in at least 30 hours of coursework. Graduation with Honors requires a 3.50 or better GPA and completion of at least 6 honors classes. These honors classes must include either Senior Honors (TE 4399) or Undergraduate Research in Telecommunications Engineering (TE 4V98) and a Senior Honors Thesis must be completed within one of those two classes. (While the topics may be related, the Senior Thesis does not replace the need for the student to complete a regular Senior Design Project.) The other 5 honors classes can come from a mixture of Graduate level (up to a count of 4) classes and special honor sections of regular undergraduate TE classes (up to a count of 2). Current undergraduate honors courses include but are not limited to: TE 2310(H), TE 3350(H), TE 4399 and TE 4V98. Course grades in the 6 honor classes used to determine Honors status must be B- or higher to qualify.

Departmental Honors with Distinction may be awarded to students whose Senior Honors Thesis is judged by a faculty committee to be of exemplary quality. Only students graduating with Departmental Honors are eligible. Thesis/projects must be submitted by the deadline that applies to M.S. Theses in the graduating semester to allow for proper evaluation. Students interested in Honors with Distinction are encouraged to start working on their thesis/project a year prior to graduation.

Minors

The School of Engineering and Computer Science does not offer minors in Telecommunications Engineering at this time.

School of General Studies

The School of General Studies provides an interdisciplinary environment that allows students to understand and integrate the liberal arts and sciences. The school administers interdisciplinary degree programs that afford students the opportunity to design their degree plans on an individualized basis. To assist the student in pursuing a course of study leading to successful completion of an undergraduate degree, the school provides a unique support structure. Included in this structure is the school's Internship Program that arranges professional work experience in diverse career settings. The educational environment of General Studies is especially congenial to students eager to pursue unconventional or innovative combinations of course work.

Faculty

All faculty in the university are eligible to participate.

Professors: George W. Fair, Karen J. Prager, Lawrence J. Redlinger

Associate Professor: Erin A. Smith

Senior Lecturers: Candice T. Chandler, Susan P. Chizeck, Dachang Cong, Patricia A. Leek, Angela McNulty, Elizabeth M. Salter, Nancy C. Van, Tonya Wissinger

Associate Dean for Teacher Development: Scherry F. Johnson

Programs

The School of General Studies administers the programs for the Bachelor of Arts in American Studies, the Bachelor of Arts in Gender Studies, the Bachelor of Arts in Interdisciplinary Studies, and the Bachelor of Science in Interdisciplinary Studies. The program in American Studies is designed for students who wish to learn more about United States' institutions, arts, and society, both in the past and present. The Bachelor of Arts in Gender Studies is designed to examine the ways that gender, as a set of ideas, fundamentally shapes our institutions, history and culture. The Bachelor of Arts and the Bachelor of Science in Interdisciplinary Studies Programs emphasize a broad learning experience and a wider perspective than that provided by traditional undergraduate majors. All programs are designed for students who wish to choose among conventional disciplines, both to explore a variety of topics and to integrate courses focusing on a particular area of interest. They are also appropriate for those students who seek a thorough grounding in the traditional arts and sciences from an interdisciplinary perspective. For students in other schools who wish to broaden their education by including a School of General Studies program, the double degree is recommended. This option calls for a minimum of 30 semester credit hours at the upper division beyond those necessary for the major with the larger credit hour requirement. In addition, the student must satisfy all requirements for both majors. The School of General Studies encourages double majors in both American Studies and Gender Studies, but a double major is not an option in Interdisciplinary Studies. Students seeking to double major in American Studies or Gender Studies must consult with the Associate Dean for Undergraduate Education in the School of General Studies.

Internship Program

All undergraduates in the School of General Studies are encouraged to take an internship with an organization in the community. Internships provide students with the opportunity to apply the knowledge and skills that they have mastered in their academic work. Students applying for internships must be in their junior or senior year and in good academic standing, have completed the appropriate course work, and receive approval of the Internship Director. Students normally enroll for 3 to 6 semester hours. Students interested in the program should see the Internship Director of the School of General Studies or call 972/883-2354.

Honors in the Major

The School of General Studies offers Honors Programs, which vary, by major, and provide an intellectually challenging opportunity for the brightest and best students in the School of General Studies.

Junior and Senior students with a cumulative UTD GPA of 3.75 are eligible to apply for the honors programs which consist of a 30 hour defined curriculum, including an honors upper level writing course, and an internship component. Due to our high GPA entrance requirements, an honors thesis is not required for honors in the major. For Honors with distinction, however, an honors thesis is required. This thesis must be submitted at least one week before the end of classes, and must be nominated by the supervising professor as being of exceptional quality. The faculty of the school (or a subgroup thereof) will then determine if the

thesis warrants this level of distinction. Students must apply for Departmental Honors through their academic advisor at the time they apply for graduation. For applications and more details, please consult your General Studies academic advisor.

Minors

The School of General Studies offers minors in American Studies and in Gender Studies. Students in the B.A. in American Studies and the B.A. in Gender Studies programs are encouraged to pursue a minor as part of their degree plan. Students in the IS degree programs cannot have a minor. Nor is there a minor offered in Interdisciplinary Studies. The requirements for each minor are listed below the degree requirements.

American Studies (B.A.)

The program in American Studies has as its focus the institutions, arts, structure, and social processes of the United States. It emphasizes interdisciplinary work which integrates disciplinary perspectives. Students choose two broad areas within which to work.

American Studies graduates work in business, non-profit organizations, media and culture industries. The B.A. in American Studies is also an excellent preparation for law school or graduate school. Each student designs his or her own program within specific guidelines and in consultation with a faculty advisor. The courses a student takes as part of the American Studies program may be given in any school within the university but will include American Studies courses and appropriate Interdisciplinary Studies courses. A list of courses which apply to the American Studies degree may be obtained from the academic advisors in the School of General Studies. Double majors including American Studies are encouraged.

Bachelor of Arts in American Studies Degree Requirements (120 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (BIS 3320)¹
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours History (HIST 1301 and 2301)
 - 3 hours Social and Behavior Sciences Elective
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (AMS 2341)¹
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 3 hours College Algebra (MATH 1306 or MATH 1314)¹
 - 3 hours Statistics (STAT 1342 or PSY 2317)
- E. Science (9 hours including at least one course with a substantial laboratory component)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parenthesis are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements: 54 hours (42 hours beyond the Core Curriculum)

- Major Preparatory Courses (6 hours)
 - One of the following:
 - MATH 1306 College Algebra for the Non-Scientist ²
 - MATH 1314 College Algebra ²
 - MATH 1325 Applied Calculus I ²
 - MATH 2417 Calculus I ²
 - One of the following:
 - PSY 2317 Statistics for Psychology ²
 - or STAT 1342 Statistical Decision Making ²
- Major Core Courses (12 hours)
 - AMS 3302 American Cultures

or AMS 2341 American Studies for the Twenty-First Century ² (at the lower division)
BIS 3320 The Nature of Intellectual Inquiry²

Two of the following courses:

HIST 3369 United States Foreign Relations

PSCI 3325 American Public Policy

PSCI 3327 American Foreign Policy

Major Related Courses (36 hours)

In addition to the core requirements, students will take 18 semester credit hours of course work in each of two of the following disciplinary options, for a total of 36 hours:

The American Body Politic

Americans Past and Present

America and the World Community

American Business and Technology

American Literature and the Arts

Popular Culture

² A required Major course that also fulfills a Core Curriculum requirement. An additional IS course will be taken if BIS 3320 is used to satisfy the Core Curriculum Communication Elective requirement.

III. Elective Requirements: 36 hours

Advanced Electives (6 hours)

Free Electives (30 hours)

Students must complete 51 hours of upper-division course work to graduate.

Honors in American Studies

GPA: 3.75 cumulative GPA, 3.75 GPA in courses described below, and a total of 27 or 30 upper level UTD hours as described below. (The variation is determined by whether or not AMS 3302 or AMS 2341 is chosen). The total hours must be 30.

Required courses:

AMS 3302 American Cultures or AMS 2341 American Studies for Twenty-First Century (3 hours)

BIS 3320 The Nature of Intellectual Inquiry Honors Section (3 hours)

Two of HIST 3369, PSCI 3325 or PSCI 3327 (6 hours)

Core Course of first chosen option area (3 hours)

Core Course of second chosen option area (3 hours)

One approved AMS course from option area 1 (3 hours)

One approved course from option area 2 (3 hours)

Options: (6 hours)

6 hours of Internship

3 hours of Internship and one approved three hour course from option area 1 or 2

Notation on Transcript: Honors in Major

Minor in American Studies

The American Studies minor is 18 semester hours. AMS 3302 and BIS 3320 are required in addition to four other approved American Studies courses chosen from AMS 3300, AMS 3370, AMS 3374, AMS 3384, AMS 4378, AMS 4379, and ISGS 3338. Students pursuing a degree in American Studies are encouraged to incorporate a minor from another discipline in their degree program.

Gender Studies (B.A.)

The Bachelor of Arts in Gender Studies is an interdisciplinary degree that draws upon courses in Gender Studies, American Studies, Arts and Humanities, Social Sciences, Psychology, and other gender-related courses. The program is designed to examine the ways that gender as a complex social construction intersects with class, race, age, ethnicity, nationality, sexual orientation,

and sexual identity; to examine the lives and experiences of groups which have been underrepresented in traditional academic work; and to acquaint students with the fundamental methodologies of women's and gender studies. Gender Studies graduates work in fields such as human resources, management, social service, and sales. The B.A. in Gender Studies also prepares students to pursue professional degrees in education, law, health sciences, social work, policy studies, and management or graduate degrees in the humanities and social sciences. Each student in the Gender Studies program is actively involved in the formulation of his or her program of study, working with a faculty advisor to devise an individualized degree plan. Students pursuing a degree in Gender Studies may incorporate a minor from another discipline in their degree program. Students are encouraged to double major in Gender Studies and another discipline.

Bachelor of Arts in Gender Studies Degree Requirements (120 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication (BIS 3320)
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours American Government (GOVT 2301 and GOVT 2302)
 - 6 hours History (HIST 1301 and HIST 2301)
 - 3 hours Social and Behavioral Science Elective
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Humanities (AMS 2341 or HUMA 1301)
 - 3 hours Fine Arts (ARTS 1301)
- D. Mathematics and Quantitative Methods (6 hours)
 - 3 hours College Algebra (MATH 1306 or MATH 1314)¹
 - 3 hours Quantitative Methods or Math (STAT 1342 or PSY 2317)¹
- E. Science (9 hours)
 - One course must have a lab component
 - See your academic advisor for appropriate courses

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parenthesis are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements: 48-49 hours (36-37 hours beyond the Core Curriculum)

- Major Preparatory Courses (9 hours)
 - MATH 1306 College Algebra for the Non-Scientist ²
or MATH 1314 College Algebra ²
 - STAT 1342 Statistical Decision Making ²
or PSY 2317 Statistics for Psychology ²
 - GST 2300 Introduction to Gender Studies ²
- Major Courses (36 hours)
 - A. Gender Studies Core Courses (9 hours)
 - GST 3301 Psychology of Gender
 - GST 3302 Gender in Western Thought
 - GST 3303 Gender, Society and Politics
 - B. Disciplinary Methods (3-4 hours)
 - One of the following:
 - AP 3300 Elements of Art and Performance
 - HIST 3301 Historical Inquiry
 - LIT 2341 Literary Analysis
 - SOC 3304 Research Methods in Sociology
 - C. Gender Studies Major and Related Courses (27 hours)
 - See academic advisor. Must include BIS 3320 The Nature of Intellectual Inquiry ²

² A required Major course that also fulfills a Core Curriculum requirement. An additional IS course will be taken if BIS 3320 is used to satisfy the Core Curriculum Communication Elective requirement.

III. Elective Requirements: (41-42 hours)

Advanced Electives (6 hours)

Free Electives (35-36 hours)

Students must complete 51 hours of upper-division credit to graduate.

Honors in Gender Studies**GPA:** 3.75 cumulative GPA, 3.75 GPA in courses described below, and a total of 27 upper level UTD hours and GST 2300.**Required courses:**

BIS 3320 The Nature of Intellectual Inquiry Honors Section (3 hours)

GST 2300 Introduction to Gender Studies (3 hours)

GST 3301 Psychology of Gender (3 hours)

GST 3302 Gender in Western Thought (3 hours)

GST 3303 Gender, Society, and Politics (3 hours)

Other approved upper level courses in the Gender Studies (9 hours)

Options: (6 hours)

6 hours of Internship

3 hours of Internship and one three hour upper level approved course from in the Gender Studies curriculum

Notation on Transcript: Honors in Major**Minor in Gender Studies**

The Gender Studies minor is 18 semester hours. The courses consist of GST 2300/SOC 2300, two courses chosen from GST 3301/PSY 3324, GST 3302/HIST 4380 (when the topic is Gender in Western Thought), and GST 3303/PSCI 3354/SOC 3354, and nine hours chosen from: AHST 4342 (when the topic is Venus to Vampire), AMS 3300, AMS 3318, BIS 4V04, CRIM 3324, GST 4311, GST 4380/SOC 4380, HIST 3324, HIST 3366, HIST 3371, HIST 3384, HIST 4360, ISGS 3306, ISGS 3312LIT 3327, LIT 3380, PSCI 3353/SOC 3353, PSCI 4358/SOC 4355, PSY 3338, PSY 4345, PSY 4346, SOC 3343, SOC 3352, SOC 3353/ PSCI 3353, SOC 4355/ PSCI 4358, SOC 4375, or SOC 4380/GST 4380.

Interdisciplinary Studies (B.A. and B.S.)

The Bachelors' degrees in Interdisciplinary Studies emphasize a broad learning experience and a wider perspective than that provided by traditional undergraduate majors. They are designed to offer the student the opportunity to participate in an interdisciplinary, coherent, academically sound, and goal-oriented education directly relevant to the student's intellectual development and career aspirations. They are appropriate for those students who seek a thorough grounding in the traditional arts and sciences from an interdisciplinary perspective. Each student in the Interdisciplinary Studies program becomes an active partner in the formulation of his or her program of study, working in consultation with an academic advisor to devise an appropriate individual degree plan. Within the framework of two foundation areas, a university-wide Interdisciplinary Studies sequence, and a multidisciplinary concentration, a student may draw upon the resources of all schools of the university to create a degree program.

Common areas of concentration for the B.A.I.S. are Business Issues, Communications, Environmental Studies, Human Resources, International Relations, Law, Public Relations, Urban Studies and courses toward Teacher Certification (EC-4 and 4-8). Graduates have been accepted into graduate programs in Divinity, Environmental Studies, the health professions, Humanities, Interdisciplinary Studies, Law, Management, and Social Sciences. The B.S. in Interdisciplinary Studies is selected by students interested in Environmental Studies, the health professions, and other science-related fields. Students interested in pre-health are advised to contact the HPAC (Health Professions Advisory Committee) Office during their first semester.

Minors and Double Majors are not allowed in these two Interdisciplinary Studies degrees. In order to make the Interdisciplinary Studies degrees reflect their name, no more than 21 hours of courses with the same prefix are allowed in the combined major requirements and the 6 hours of advanced electives. (BA and ACCT courses count as a single prefix.) In the major requirements and 6 hours of advanced electives, there must be a minimum of 51 hours of upper-division courses. In the concentration, a minimum of three (3) prefixes must be represented. Please consult an academic advisor for further elaboration.

Bachelor of Arts in Interdisciplinary Studies Degree Requirements (120 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (BIS 3320) ¹
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Sciences Elective
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 3 hours College Algebra (MATH 1306 or MATH 1314) ¹
 - 3 hours Statistics (STAT 1342 or PSY 2317) ¹
- E. Science (9 hours including at least one course with a substantial laboratory component)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parenthesis are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements: 60 hours (51 hours beyond the Core Curriculum)

Major Preparatory Courses (6 hours)

- MATH 1306 College Algebra for the Non-Scientist ²
or MATH 1314 College Algebra ²
- STAT 1342 Statistical Decision Making ²
or PSY 2317 Statistics for Psychology ²

Major Core Courses (12 hours)

- One 3 hour ISGS course
- One 3 hour IS course offered by another school (ISAH, ISEC, ISHD, ISNS, or ISSS)
- One 3 hour course chosen from AMS, GST or ISGS
- BIS 3320 The Nature of Intellectual Inquiry ²

Major Related Courses (42 hours) consisting of:

Two Foundations: 12 hours each (24 credit hours)

The two foundations are drawn from the Schools of Arts and Humanities, Behavior and Brain Sciences, Economic, Political and Policy Sciences, Computer Science, General Studies, Management, and Natural Sciences and Mathematics

One Concentration: 18 hours

Each student devises, in consultation with his/her advisor, the topic for the Concentration and selects 18 semester credit hours of course work related to the topic, drawn from at least three academic disciplines.

Appropriate IS course work may be selected.

² A required Major course that also fulfills a Core Curriculum requirement. An additional IS course will be taken if BIS 3320 is used to satisfy the Core Curriculum Communication Elective requirement.

III. Elective Requirements: 27 hours

Advanced Electives (6 hours)

Free Electives (21 hours) ²

Students must complete 51 hours of upper-division course work to graduate.

³ An additional (or fourth) IS course (science or non-science) will be taken if BIS 3320 is used to satisfy the Core Curriculum Communication Elective requirement.

Honors in Interdisciplinary Studies (BA)

GPA: 3.75 cumulative GPA, 3.75 GPA in courses described below, and a total of 30 upper level UTD hours as described below.

Required courses:

- BIS 3320 The Nature of Intellectual Inquiry Honors Section (3 hours)
- Foundation I (3 hours)
- Foundation 2 (3 hours)
- Concentration (15 hours)
- Options: (6 hours)
 - 6 hours of Practice Teaching
 - 6 hours of Internship
 - 3 hours of Internship and one three hour ISGS/AMS/GST course

Notation on Transcript: Honors in Major

Bachelor of Science in Interdisciplinary Studies Degree Requirements (120 hours)**I. Core Curriculum Requirements¹: 42 hours**

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (BIS 3320) ¹
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Sciences Elective
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 6 hours Calculus (MATH 1325 and 1326 or MATH 2417 and 2419) ¹
- E. Science (9 hours including at least one course with a substantial laboratory component)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parenthesis are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements: 60 hours (51 hours beyond the Core Curriculum)

- Major Preparatory Courses (6-8 hours)
 - Either MATH 1325 Applied Calculus I²
and MATH 1326 Applied Calculus II²
or MATH 2417 Calculus I²
and MATH 2419 Calculus II²
- Major Core Courses (12 hours)
 - Three Science IS courses
 - BIS 3320 The Nature of Intellectual Inquiry³
- Major Related Courses (42 hours) consisting of:
 - Two Foundations: 12 hours each (24 student credit hours)
 - Foundation I consists of courses taught by the School of Natural Sciences and Mathematics, Computer Science, or Science courses from the School of Behavior and Brain Sciences.
 - Foundation II is drawn from Arts and Humanities, Behavior and Brain Sciences (if not used for Foundation I), Computer Science (if not used in Foundation I), Economical, Political and Policy Sciences, General Studies, and Management.
 - One Concentration: 18 hours
 - Each student devises, in consultation with his/her advisor, the topic for the Concentration and selects 18 semester credit hours of course work related to the topic, drawn from at least three academic disciplines. Appropriate IS course work may be selected. Three courses must be science courses and one must be a statistics course.

² A required Major course that also fulfills a Core Curriculum requirement. An additional IS course will be taken if BIS 3320 is used to satisfy the Core Curriculum Communication Elective requirement.

III. Elective Requirements: 27 hours

Advanced Electives (6 hours)

Free Electives (21 hours) ²

Students must complete 51 hours of upper-division course work to graduate.

³ Students may elect to substitute MATH 2417 and 2419 for MATH 1325 and MATH 1326 and count two of the credit hours as Free Electives.**Honors in Interdisciplinary Studies (BS)****GPA:** 3.75 cumulative GPA, 3.75 GPA in courses described below, and a total of 30 upper level UTD hours as described below.**Required courses:**

BIS 3320 The Nature of Intellectual Inquiry Honors Section (3 hours)

Foundation I – Natural Science and Mathematics (6 hours)

Concentration (15 hours)

Options: (6 hours)

6 hours of Practice Teaching

6 hours of Internship

3 hours of Internship and one three hour ISGS/AMS/GST course

Notation on Transcript: Honors in Major**Highly Recommended**

Internships, basic computer skills, foreign languages, international studies, and courses in literature and history, offered by the School of General Studies are highly recommended in all General Studies degree plans. Students should consult closely with their advisors on particular areas of interest they wish to include in their programs.

School of Management

The School of Management's mission is to meet the challenges of a rapidly changing, technology-driven, global society by partnering with the business community to:

- Conduct research enhancing management knowledge;
- Deliver high quality management education to a diverse group of undergraduate and graduate students and practicing executives;
- Develop, innovate and continuously improve programs advancing management education and practice.

The School of Management is committed to providing our students an outstanding educational experience that will expand and sharpen their skills, help them become leaders of business and leave them with strong career prospects. Focusing on the rapidly changing challenges of our technology-driven global society, many of the School's programs have been instituted in response to requests from business and designed to meet the needs of tomorrow's industry. Our programs stress innovations in the latest technologies while providing a foundation in the basics of business management.

The Bachelor of Science degree in Business Administration is designed to provide students with a broad preparation for a business career and to lay the foundation for further study in business administration. Strong emphasis is placed on problem solving techniques that are typical of the modern business organization. Students are prepared to apply their skills and knowledge toward solving the complex problems that face business and industry in today's society. The Bachelor of Science in Business Administration offers concentrations in Management Information Systems, Entrepreneurship, International Business, Marketing, and Operations Management in addition to the general degree. A double major in Biology is offered in conjunction with the Biology Department.

The program leading to the degree of Bachelor of Science in Accounting and Information Management provides students a broad-based education that balances conceptual with pragmatic knowledge and exposes accounting students to other related areas. The objective of the Program is to develop professionals who understand the role of information in organizations and financial markets; have the necessary skills to integrate financial analysis and information technology; and possess analytical and management functional area skills. Completion of this program will enable students to seek careers in information-intensive organizations as information managers, consultants or financial analysts. Students who desire a comprehensive accounting education and are seeking to become Certified Public Accountants are advised to pursue the 150 credit-hour, B.S. and M.S. Fast-Track Program in Accounting and Information Management. Students who successfully complete both degrees may choose to sit for the CPA examination upon completion of the 150 semester hour educational requirement of the Texas State Board of Public Accountancy.

The Bachelor of Science degree in Finance provides students with both practical and theoretical training in financial decision making. Students who choose this degree will have the opportunity to develop the quantitative skills required to rigorously analyze financial information, the analytical foundation needed for making corporate financial decisions, and the problem solving skills necessary for prudent investment management. Completion of the degree requirements will permit students to seek careers as financial analysts, as well as careers with corporations, financial institutions and government agencies. With the appropriate choice of courses, a student should be able to successfully complete the Certified Financial Planning (CFP®) program. A double major is also offered in conjunction with the Economics program to students interested in pursuing the Chartered Financial Analyst (CFA®) designation. The CFA® program, administered by the CFA® Institute, is a globally recognized standard for measuring the competence and integrity of financial analysts. Like the Bachelor of Science degree in Finance, the double major prepares students for the CFA® Level I examination. However, the double major provides students with more analytical preparation for the Level II and III examinations, which typically require graduate course work as well.

All degrees contain a central core of 30 hours. In the core courses, students have an opportunity to learn theories and analytical techniques that can be applied to the functional areas of business, such as finance and marketing. They are exposed to the international dimensions of business activities and to social and political factors that impinge on business behavior. A capstone course in strategic management provides an integrative experience where students are challenged to solve real world business problems. Fifty percent of the total business credit hours must be taken at U.T. Dallas.

Students are also required to take courses outside the School of Management in order to broaden their educational experience in preparation for leadership roles as professionals and/or managers in the modern business organization.

Faculty

Professors: Ashiq Ali, Alain Bensoussan, Ramaswamy Chandraskaran, William Cready, Rachel Croson, Theodore Day, Gregory Dess, Adolf J.H. Enthoven, David L. Ford, Jr., Varghese S. Jacob, Constantine Konstans, Stan Liebowitz, Sumit Majumdar, Larry J. Merville, Vijay Mookerjee, Shun Chen Niu, Mike Peng, Hasan Pirkul, Suresh Radhakrishnan, Srinivasan Raghunathan, Ram C. Rao, Brian Ratchford, Michael Rebello, Sumit Sarkar, Suresh P. Sethi, Chelliah Sriskandarajah, Kathryn Stecke, John Wiorowski, Harold Zhang

Associate Professors: Mark Anderson, Indranil Bardhan, Metin Cakanyildirim, Milind Dawande, David Deeds, J. Richard Harrison, Surya Janakiraman, Robert Kieschnick, Nanda Kumar, Zhiang (John) Lin, Livia Markoczy, Syam Menon, B.P.S. Murthi, Ramachandran Natarajan, Ashutosh Prasad, Orlando Richard, Young Ryu, Jane Salk, David Springate, Eric Tseng, Yunzeng Wang, Yexiao Xu

Assistant Professors: Jayatirtha Asundi, Nina Baranchuk, Norris Bruce, Alex Butler, Octavian Carare, Zhongdian Dai, Kutsal Dogan, Laurel Franzen, Rakesh Gupta, Umith Guran, Ernan Haruvy, Seung-Hyun Lee, Xu Li, Xiaohi Liu, Holly Lutze, Stan Markov, Volkan Muslu, Valery Polkovnichenko, Hyeun-Suk Rhee, Andrei Strijnev, Mark Vargus, Yu Wang, Kelsey Wei, Yuanping Ying, Wei Yue, Alejandro Zentner, Jun Zhang, Qin Zhang, Eric Zheng, Yibin Zhou

Visiting Professors: Huseyin Cavusoglu, Usman Ghani, Xiuli He

Professor Emeritus: Dale Osborne

Clinical Faculty: Tefvik Dalgic, Charlie Hazzard, Peter Lewin, John McCracken, Michael Oliff, Divakar Rajamani, Fang Wu

Senior Lecturers: Joachim Adler, Art Agulnek, Frank Anderson, Jasper Arnold, John Barden, George Barnes, Abhijit Biswas, Ron Blair, Tiffany Bortz, Mary Chaffin, Anne Ferrante, Richard Fisher, Mary Beth Goodrich, Rob Hicks, Jonathon Hochberg, Marilyn Kaplan, Chris Linsteadt, Diane S. McNulty, Radha Mookerjee, Kumar Nair, Joseph Picken, Nataliya Polkovnichenko, Matt Polze, Carolyn Reichert, Robert Robb, Tracey Rockett, Mark Salamasick, Michael Savoie, Avanti Sethi, Charles Solcher, Lou Thompson, Amy Troutman, Habte Woldu, Laurie Ziegler

Management Honors Program

The Management Honors Program provides an intellectually challenging and stimulating academic experience in a unique learning environment for the best and brightest students. Sophomores, juniors and seniors with a 3.50 grade point average are eligible to apply for the program. Freshmen are considered for membership based on high school class rank and SAT/ACT scores. To graduate with Management Honors students must have a 3.50 GPA based on at least 30 graded hours at UTD, complete an honors curriculum which includes a thesis, and complete a community service requirement. Management Honors with Distinction will be awarded to students whose thesis is judged by the faculty to be of exemplary quality. Applications and detailed information are available in the School of Management Advising Office.

Professional Program in Accounting

The Professional Program in Accounting (PPA) is designed for students who wish to pursue a career in professional accounting. This program is a two-and-a-half year program, beginning in the spring semester of the student's junior year. Qualified students will earn their Bachelor of Science in Accounting and Information Management (BS-AIM) degree once all degree requirements for the bachelor's degree have been satisfied, additionally, the Master of Science in Accounting and Information Management (MS-AIM) degree will be awarded upon successful completion of requirements for that degree. The goals of the program are to place PPA students in professional accounting internships and full-time positions, increase networking opportunities among students with professionals, and prepare students to become Certified Public Accountants. Applications to the program are accepted in the fall semester of a student's junior year. Applications and detailed information are available in the School of Management Advising Office.

Fast Track Baccalaureate/Master's Degrees

Fast Track programs are designed to permit undergraduate students enrolled at U.T. Dallas to begin work on the MBA or M.S. degrees before graduation. Qualified seniors may take graduate courses in Management that will apply toward the Bachelor of Science degree and also satisfy requirements for the Master's degree. These courses will be selected from a list determined by the School.

Fast Track courses taken during the undergraduate senior year must be well chosen so that they satisfy the requirements of the B.S. degree AND those of the intended MBA/M.S. degree. Students in one major may choose to Fast Track into another major.

Students can take the Fast Track courses as substitutes for major related courses, as guided and/or free electives. Students from other Schools at UTD can Fast Track into SOM degrees as long as they meet the Fast Track admission requirements. Students must earn a grade of at least B in Fast Track courses – otherwise the courses only count toward the undergraduate degree.

Admission to a Fast Track program does not guarantee admission to the graduate program. Students are required to meet admission requirements of the MBA and M.S. programs, including the GMAT. Students may delay for up to one year entering the graduate program and have their Fast Track courses count toward their graduate degree.

Students can also take graduate courses to use only for undergraduate or graduate credit. Students must submit an acceptable GMAT score and receive permission from the Associate Dean before taking more than 12 graduate hours for any use. Details of the programs are available from the School of Management Advising Office.

Fast Track Options in the School of Management

Fast Track B.S. /MBA: The MBA program is a 53 hour program. Qualified seniors may take up to 12 hours of graduate courses that will apply to the B.S. degree and the MBA degree.

Fast Track B.S. /M.S. in Accounting and Information Management: The M.S. in AIM is a 36 hour program. It is primarily designed to permit students to meet the educational requirements of the Texas State Board of Public Accountancy to become Certified Public Accountants. Qualified seniors may take up to 6 hours of graduate courses that will apply to the B.S. degree and the M.S. degree.

Fast Track B.S. /M.S. in Management and Administrative Science: Students may choose concentrations in Finance, Electronic Commerce, Organizations and Strategy, Supply Chain Management, Healthcare, and Innovation and Entrepreneurship. The Fast Track M.S. with a concentration in Finance permits students interested in career paths that require Chartered Financial Analyst (CFA®) certification to take the graduate finance courses that are required to master the complex topics covered on the CFA® examination. Qualified seniors may take up to 9 hours of graduate courses that will apply to the Bachelor of Science degree and also satisfy the requirements for an M.S. degree.

Fast Track B.S. /M.S. in Information Technology and Management: Students may choose a concentration in Information Technology Management and Consulting, E-Business Information Technology, or Telecommunications Management. Qualified seniors may take up to 9 hours of graduate courses that will apply to the Bachelor of Science degree and also satisfy the requirements for an M.S. degree.

Fast Track B.S. /M.A. in International Management Studies: The program provides students the opportunity to learn in-depth the fundamentals of functional areas of management, international management, and cultural, sociopolitical and geographical constraints affecting international business decisions. Qualified seniors may take up to 9 hours of graduate courses that will apply to the B.S. degree and also satisfy the requirements for the M.A. degree.

Minors

Minors are available in Business Administration, Accounting and Information Management, Finance and Entrepreneurship.

For a minor in Business Administration, students must take: BA 3361, BA 3365 and AIM 2300 with an additional 9 hours to be selected from upper-level BA and AIM courses. All course prerequisites must be met.

For a minor in Accounting and Information Management (AIM), students must take: AIM 2301, AIM 2302, and AIM 3320. Students choose an additional nine hours from upper-level AIM courses. All course prerequisites must be met.

For a minor in Finance, students must take: AIM 2300, BA 3341, BA 3390, and an additional nine hours to be selected from upper-level finance courses listed as options under the finance degree. All course prerequisites must be met.

For a minor in Entrepreneurship, students must take AIM 2300, BA 3310 (or BA 4310), BA 3365, BA 4308, and, BA 4311 with an additional 3 hours to be selected from BA 3372, BA 4335 or BA 4336. All course prerequisites must be met.

Bachelor of Science in Business Administration Degree Requirements (120 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (BA 3311)
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Science Elective (ECON 2301)
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 6 hours Calculus (MATH 1325 and 1326)
- E. Science (9 hours including at least one course with a substantial laboratory component)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements: 48-54 hours

- Major Preparatory Courses (15 hours)
 - AIM 2301* Introductory Financial Accounting
 - AIM 2302* Introductory Management Accounting
 - BA 2301* Business and Public Law
 - ECON 2301* Principles of Macroeconomics²
 - ECON 2302* Principles of Microeconomics
 - MATH 1325* Applied Calculus I^{2, 3}
 - MATH 1326* Applied Calculus II^{2, 3}
 - MATH 2333* Matrices, Vectors, and Their Application⁴
- Major Core Courses (27 hours)
 - BA 3311 Business Communications²
 - BA 3341 Business Finance
 - BA 3351 Introduction to Management Information Systems
 - BA 3352 Production Management
 - BA 3361 Organizational Behavior
 - BA 3365 Principles of Marketing
 - BA 4305 Strategic Management
 - BA 4371 International Business
 - STAT 3360 Probability and Statistics for Management and Economics
- Major Related Courses
 - Core Courses for the MIS Concentration (15 hours)
 - BA 4318 Programming in Visual Basic
 - BA 4321 Database Fundamentals
 - BA 4322 Systems Analysis and Design
 - BA 4323 Business Data Communications
 - BA 4326 Systems Development Project
 - Core Courses for the Entrepreneurship Concentration (12 hours)
 - BA 4308 Entrepreneurship
 - BA 4310 Entrepreneurial Finance
 - BA 4311 Entrepreneurial Strategy
 - BA 4335 Marketing Research
 - Core Courses for the International Business Concentration (9 hours)
 - BA 4361 International Finance Management

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- BA 4372 International Organizational Behavior and Human Resource Management
 - BA 4373 Global Strategy
 - Core Courses for the Marketing Concentration (9 hours)
 - BA 4335 Marketing Research
 - BA 4337 Product and Brand Management
 - BA 4338 Sales and Distribution Management
 - Core Courses for the Operations Management Concentration (9 hours)
 - BA 4366 Introduction to Supply Chain Management
 - BA 4368 Lean and Six Sigma Processes
 - BA 4369 Integrated SCM Information Systems
 - Breadth Core Courses for students not choosing a concentration – General Breadth Core Courses for students not choosing a concentration – General Business (15 hours)Business
 - Select from the following with at least 1 course from 3 of the 6 groups:
 - Group 1: Management
 - BA 3345 Introduction to Leading and Managing
 - BA 4308 Entrepreneurship
 - BA 4332 Negotiation and Dispute Resolution
 - BA 4333 Performance Management
 - BA 4372 International Organizational Behavior and Human Resource Management
 - BA 4373 Global Strategy
 - Group 2: Marketing
 - BA 3372 Export Market Development
or BA 3374 International Marketing
 - BA 4335 Marketing Research
 - BA 4336 Marketing Strategy
 - BA 4337 Product and Brand Management
 - Group 3: Finance and Accounting
 - AIM 3320 Financial Information Management
 - AIM 3341 Cost Management Systems
 - AIM 3351 Individual Taxation
 - AIM 4336 Financial Statement Analysis
 - AIM 4337 Business Valuation
 - BA 4310 Entrepreneurial Finance
 - BA 4346 Investment Management
 - BA 4350 Personal Financial Management and Planning
 - Group 4: Information Systems
 - AIM 3321 Managing Financial Data
or BA 4321 Database Fundamentals
 - AIM 4342 Analysis and Design of Accounting Systems
 - BA 3360 Managerial Decision Making
 - BA 4322 Systems Analysis and Design
 - BA 4323 Business Data Communications
 - BA 4330 Information Technology Security and Audit
 - BA 4356 Enterprise Resource Planning
 - Group 5: Business Environment
 - BA 3301 Employment Law
 - BA 4307 Corporations, Politics and Society
 - BA 4309 Regulation of Business and Financial Markets
 - BA 4345 Financial Markets and Institutions
 - Group 6: Operations Management
 - BA 3360 Managerial Decision Making
 - BA 4366 Introduction to Supply Chain Management
 - BA 4367 Introduction to Project Management
 - BA 4368 Lean and Six Sigma Processes
 - BA 4369 Integrated SCM Information Systems
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²A required Major course that also fulfills a Core Curriculum requirement. Hours are counted in Core Curriculum.

³These hours are counted under Mathematics Core above; students may substitute MATH 2417 and 2419.

⁴Students may substitute MATH 2418 or CS 2305.

*Indicates a prerequisite class to be completed before enrolling for upper-division classes.

III. Elective Requirements: 24-30 hours

Advanced Electives (6 hours)

All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites.

Free Electives

Both lower- and upper-division courses may count as electives but students must complete at least 51 hours of upper-division credit to qualify for graduation.

MIS Concentration: (9 hours) (6 hours must be non-business courses)

Entrepreneurship Concentration: (12 hours) (6 hours must be non-business courses)

International Business Concentration: (12 hours) (3 hours must be non-business courses)

Marketing Concentration: (12 hours) (6 hours must be non-business courses)

Operations Management Concentration: (12 hours) (6 hours must be non-business courses)

General Business: (18 hours) (6 hours must be non-business courses)

Guided Electives

MIS Concentration: (9 hours) to be selected from AIM 4343, BA 4199, BA 4299, BA 4319, BA 4320, BA 4324, BA 4328, BA 4329, BA 4330, BA 4331, BA 4355, BA 4356, BA 4V95.

Entrepreneurship Concentration: (9 hours)

Three hours to be selected from BA 3372 or BA 3374.

Six hours to be selected from AIM 3320, AIM 3341, BA 3372, BA 4309, BA 4321, BA 4336 or BA 4199 and BA 4299.

International Business Concentration: (12 hours)

Three hours to be selected from BA 3372 or BA 3374.

Three hours to be selected from BA 4311, BA 4322 or BA 4366.

Six hours to be selected from an approved list provided by the department.

Marketing Concentration: (12 hours)

Three hours to be selected from BA 3372, BA 3374, BA 4336, BA 4339 or BA 4V93.

Nine hours to be selected from BA 3372, BA 3374, BA 4308, BA 4311, BA 4329, BA 4336, BA 4339, BA 4366, BA 4199 and BA 4299, BA 4V93 or ECON 3310. If approved, the student may select from graduate marketing courses.

Operations Management Concentration: (12 hours)

Three hours to be selected from BA 3360, BA 4356, or BA 4367.

Nine hours to be selected from AIM 3341, BA 3360, BA 3372, BA 4321, BA 4332, BA 4338, BA 4356, or BA 4367.

Bachelor of Science in Business Administration and Biology Degree Requirements (137-138 hours)*

I. Core Curriculum Requirements¹: 42 hours

A. Communication (6 hours)

3 hours Communication (RHET 1302)

3 hours Communication Elective (BA 3311)

B. Social and Behavioral Sciences (15 hours)

6 hours Government (GOVT 2301 and 2302)

6 hours American History

3 hours Social and Behavioral Sciences Elective (ECON 2301)

C. Humanities and Fine Arts (6 hours)

3 hours Fine Arts (ARTS 1301)

3 hours Humanities (HUMA 1301)

D. Mathematics and Quantitative Reasoning (6 hours)

6 hours Calculus (MATH 1325 and 1326)

- E. Science (9 hours)
9 hours Chemistry (CHEM 1311, 1111, 1312, 1112 and 2123)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

* Degree is 138 hours if students is required to take RHET 1101.

II. Major Requirements: 83 hours

Business and Management Major Preparatory Courses (15 hours beyond Core Curriculum)

- AIM 2301* Introductory Financial Accounting
- AIM 2302* Introductory Management Accounting
- BA 2301* Business and Public Law
- ECON 2301* Principles of Macroeconomics²
- ECON 2302* Principles of Microeconomics
- MATH 1325* Applied Calculus I^{2, 3}
- MATH 1326* Applied Calculus II^{2, 3}
- MATH 2333* Matrices, Vectors, and Their Application⁴

Business and Management Core Courses (27 hours)

- BA 3311 Business Communications²
- BA 3341 Business Finance
- BA 3351 Introduction to Management Information Systems
- BA 3352 Production Management
- BA 3361 Organizational Behavior
- BA 3365 Principles of Marketing
- BA 4305 Strategic Management
- BA 4371 International Business
- STAT 3360 Probability and Statistics for Management and Economics
or STAT 3332 Statistics for Life Sciences

Biology Major Preparatory Courses (15 hours beyond Core Curriculum)

- CHEM 1111 General Chemistry Laboratory I²
- CHEM 1112 General Chemistry Laboratory II²
- CHEM 1311 General Chemistry I²
- CHEM 1312 General Chemistry II²
- CHEM 2123* Introductory Organic Chemistry Laboratory I
- CHEM 2125* Introductory Organic Chemistry Laboratory II
- CHEM 2323* Introductory Organic Chemistry I
- CHEM 2325* Introductory Organic Chemistry II
- PHYS 1301/1101² College Physics I with Laboratory
or PHYS 3341/2125 Physics for Bio Science I with Laboratory
- PHYS 1302/1102 College Physics II with Laboratory
or PHYS 3342/2126 Physics for Bio Science II with Laboratory

Biology Core Courses (29 hours)

- BIOL 2111* Introduction to Modern Biology Workshop I
- BIOL 2112* Introduction to Modern Biology Workshop II
- BIOL 2281* Introductory Biology Laboratory
- BIOL 2311* Introduction to Modern Biology I
- BIOL 2312* Introduction to Modern Biology II
- BIOL 3101 Classical and Molecular Genetics Workshop
- BIOL 3102 Eukaryotic Molecular and Cell Biology Workshop
- BIOL 3161 Biochemistry Workshop I
- BIOL 3162 Biochemistry Workshop II
- BIOL 3301 Classical and Molecular Genetics
- BIOL 3302 Eukaryotic Molecular and Cell Biology
- BIOL 3361 Biochemistry I
- BIOL 3362 Biochemistry II
or BIOL 3335 Microbial Physiology

BIOL 3380 Biochemistry Laboratory

² A required Major course that also fulfills a Core Curriculum requirement. Hours are counted in Core Curriculum.

³ Students may substitute Calculus (MATH 2417 and 2419).

⁴ Students may substitute MATH 2418 or CS 2305.

*Indicates a prerequisite class to be completed before enrolling for upper-division classes.

III. Elective Requirements: 12 hours

Advanced Electives

All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites. These are satisfied with CHEM 2323 and 2325 counted under Major Preparatory Courses above.

Guided Electives (12 hours)

Business Administration: (9 hours) to be selected from any upper level AIM or BA course. If qualified, the student may select from SOM graduate courses.

Biology: (3 hours) BIOL 4380 Cell and Molecular Biology Laboratory or approved upper-level biology course.

Bachelor of Science in Accounting and Information Management Degree Requirements (120 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (AIM 3311)
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Science Elective (ECON 2301)
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning: (6 hours)
 - 6 hours Calculus (MATH 1325 and 1326)
- E. Science (9 hours including at least one course with a substantial laboratory component)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements: 54 hours

Major Preparatory Courses (15 hours)

- AIM 2301* Introductory Financial Accounting
- AIM 2302* Introductory Management Accounting
- BA 2301* Business and Public Law
- ECON 2301* Principles of Macroeconomics²
- ECON 2302* Principles of Microeconomics
- MATH 1325* Applied Calculus I^{2, 3}
- MATH 1326* Applied Calculus II^{2, 3}
- MATH 2333* Matrices, Vectors, and Their Application⁴

Major Core Courses (27 hours)

- AIM 3311 Accounting Communications²
- BA 3341 Business Finance
- BA 3351 Introduction to Management Information Systems
- BA 3352 Production Management
- BA 3361 Organizational Behavior
- BA 3365 Principles of Marketing

BA 4305 Strategic Management
 BA 4371 International Business
 STAT 3360 Probability and Statistics for Management and Economics
 Major Related Courses for all Tracks (15 hours)
 AIM 3320 Financial Information Management
 AIM 3331 Intermediate Financial Accounting I
 AIM 3341 Cost Management Systems
 AIM 4332 Intermediate Financial Accounting II
 AIM 4342 Analysis and Design of Accounting Systems

² A required Major course that also fulfills a Core Curriculum requirement. Hours are counted in Core Curriculum.

³ These hours are counted under Mathematics Core above; students may substitute MATH 2417 and MATH 2419.

⁴ Students may substitute MATH 2418 or CS 2305.

* Indicates a prerequisite class to be completed before enrolling for upper-division classes.

III. **Elective Requirements: 24 hours**

Advanced Electives (6 hours)

All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites.

Free Electives (6 hours) (must be non-business courses)

Both lower- and upper-division courses may count as electives but students must complete at least 51 hours of upper-division credit to qualify for graduation.

Guided Electives (12 hours)

Electives may be any undergraduate chosen from a list of courses approved by the Director of Accounting and Information Management Programs. Students wishing to fast-track into the graduate program in accounting may take up to six hours of graduate AIM electives.

Bachelor of Science in Finance Degree Requirements (120 hours)

I. **Core Curriculum Requirements¹: 42 hours**

A. Communication (6 hours)

3 hours Communication (RHET 1302)

3 hours Communication Elective (BA 3311)

B. Social and Behavioral Sciences (15 hours)

6 hours Government (GOVT 2301 and 2302)

6 hours American History

3 hours Social and Behavioral Science Elective (ECON 2301)

C. Humanities and Fine Arts (6 hours)

3 hours Fine Arts (ARTS 1301)

3 hours Humanities (HUMA 1301)

D. Mathematics and Quantitative Reasoning: (6 hours)

6 hours Calculus (MATH 1325 and 1326)

E. Science (9 hours including at least one course with a substantial laboratory component)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. **Major Requirements: 48 hours**

Major Preparatory Courses (15 hours)

AIM 2301* Introductory Financial Accounting

AIM 2302* Introductory Management Accounting

BA 2301* Business and Public Law

ECON 2301* Principles of Macroeconomics²

ECON 2302* Principles of Microeconomics

MATH 1325* Applied Calculus ^{1, 3}

- MATH 1326* Applied Calculus II^{2, 3}
 MATH 2333* Matrices, Vectors, and Their Application⁴
 Major Core Courses (27 hours)
 BA 3311 Business Communications²
 BA 3341 Business Finance
 BA 3351 Introduction to Management Information Systems
 BA 3352 Production Management
 BA 3361 Organizational Behavior
 BA 3365 Principles of Marketing
 BA 4305 Strategic Management
 BA 4371 International Business
 STAT 3360 Probability and Statistics for Management and Economics
 Major Related Courses (6 hours)
 BA 3390 Quantitative Methods in Finance
 BA 4346 Investment Management

² A required Major course that also fulfills a Core Curriculum requirement. Hours are counted in Core Curriculum.

³ Students may elect to substitute MATH 2417 and 2419.

⁴ Students may substitute MATH 2418 or CS 2305.

*Indicates a prerequisite class to be completed before enrolling for upper-division classes.

III. Elective Requirements: 30 hours

Advanced Electives (6 hours)

All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites.

Free Electives (12 hours) (6 hours must be non-business courses)

Both lower- and upper-division courses may count as electives but students must complete at least 51 hours of upper-division credit to qualify for graduation.

Guided Electives (15 hours)

Nine hours of finance to be selected from BA 4310, BA 4345, BA 4347, BA 4348, BA 4349, BA 4350, BA 4354, BA 4360 and BA 4361

Six hours to be selected from: AIM 3320, AIM 3331, AIM 3341, AIM 3351, AIM 4332, AIM 4336, BA 3360, BA 4199, BA 4299, BA 4309, BA 4310, BA 4345, BA 4347, BA 4348, BA 4349, BA 4350, BA 4354, BA 4361, BA 4V92, ECON 3310 and ECON 3311.

Bachelor of Science in Finance and Economics (Double Major) with an emphasis in CFA® Degree Requirements (126-127 hours)*

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (BA 3311)
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Sciences Elective (ECON 2301)
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 3 hours Mathematics (MATH 1325)
 - 3 hours Quantitative Reasoning (STAT 3360)
- E. Science (9 hours including at least one course with a substantial laboratory component)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parenthesis are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

* Degree is 127 hours if student is required to take RHET 1101.

II. Major Requirements: 57 hours

Major Preparatory Courses (18 hours)

AIM 2301 Introductory Financial Accounting*

AIM 2302 Introductory Management Accounting*

BA 2301 Business and Public Law*

ECON 2301 Principles of Macroeconomics*

ECON 2302 Principles of Microeconomics*

MATH 1325 Applied Calculus I^{2, 3}

MATH 1326 Applied Calculus II^{2, 3}

MATH 2333 Matrices, Vectors and Their Application⁴

Major Core Courses (42 hours)

BA 3311 Business Communications

BA 3341 Business Finance

BA 3351 Introduction to Management Information Systems

BA 3352 Production Management

BA 3361 Organizational Behavior

BA 3365 Principles of Marketing

BA 3390 Quantitative Methods in Finance

BA 4305 Strategic Management

BA 4346 Investment Management

BA 4371 International Business

ECON 3310 Intermediate Microeconomic Theory

ECON 3311 Intermediate Macroeconomic Theory

ECON 4351 Mathematical Economics

ECON 4355 Econometrics

STAT 3360 Probability and Statistics for Management and Economics ²

² A Major requirement that also fulfills a Core Curriculum requirement. Hours are counted in Core Curriculum.

³ These hours are counted under Mathematics Core above; students may substitute MATH 2417 and MATH 2419.

⁴ Students may substitute MATH 2418 or CS 2305.

* Indicates a prerequisite class to be completed before enrolling for upper-division classes in Economics and Finance.

III. Guided Elective Requirements: 27 hours

Select 9 hours from: BA 4345, BA 4347, BA 4348, BA 4349, BA 4350, BA 4354, BA 4360 and BA 4361.

Select 6 hours from: AIM 3320, AIM 3331, AIM 3351, AIM 4332, AIM 4336, AIM 4337, BA 4199 or BA 4299.

Select 12 hours from: ECON 3370, ECON 4320, ECON 4346, ECON 4360, ECON 4362, ECON 4382, ECON 4396, or ECON 4399.

School of Natural Sciences and Mathematics

The School of Natural Sciences and Mathematics offers both graduate and undergraduate programs in Biology and Molecular Biology, Chemistry and Biochemistry, Geosciences, Mathematical Sciences, and Physics, and a graduate program in Science Education. Undergraduate and post-baccalaureate programs in teacher certification are administratively housed in the School of Natural Sciences and Mathematics but serve other schools as well.

The undergraduate programs in Biology and Molecular Biology provide a basic foundation in molecular and cell biology to prepare students for graduate studies in biological sciences (B.S.), for professional studies in a wide variety of health-related areas, for secondary school teaching, and for employment as research assistants in pharmaceutical, biotechnology, government, and environmental science laboratories (B.S., B.A.).

The undergraduate program in Chemistry provides the fundamental knowledge required for professional participation in chemically oriented industries, for graduate study in chemistry, and for medical or dental studies (B.S.), or for secondary science teaching or ancillary positions (sales, legal, etc.) in the chemical industries (B.A.).

The undergraduate program in Geosciences provides a general scientific background suitable for some careers in business or law, for secondary school teaching (B.A.), or for employment as a professional geologist, or for graduate studies in Geosciences (B.S.).

The undergraduate programs in Mathematical Sciences (B.S.) encompass Mathematics, Statistics, and Applied Mathematics, and are designed so that students can have the opportunity to prepare for employment immediately upon graduation in a broad range of positions in business, industry, government and education - or for continuing with graduate studies in any of these areas.

The undergraduate Physics program offers a basic foundation in classical and modern physics for students interested in professional careers in physics, usually requiring graduate degrees, as well as in related fields, e.g., electrical engineering, medical physics, radiology, lasers, geophysics, computer science (B.S.), or a strong base in physics for students seeking to pursue careers in medicine, patent law, government or industrial laboratories, or secondary school teaching (B.A.).

The School of Natural Sciences and Mathematics also provides opportunities for students to complete Texas Teacher Certification requirements in Biology, Chemistry, Earth Science, Life/Earth Science, Mathematics, and Physics. Students who wish to be certified should consult the Teacher Development Center for specific requirements as soon as possible after formal admission to the University. Further details may be found in the Teacher Education section of the catalog.

Major Honors

The Departments of the School of Natural Science and Mathematics offer the opportunity for outstanding students to graduate with Honors or Honors with Distinction in their major. The program provides for these students to work individually with faculty for an in-depth experience in research.

Eligibility requirements include a) at least 30 graded hours of coursework at UTD with a cumulative grade point average of 3.75, b) at least 12 hours of upper division courses in the student's major with a grade point average of 3.75 over all the upper division courses in the major, and c) completion of an honors thesis evaluated by two faculty members with a grade of at least B+.

The thesis would satisfy the advanced writing requirement if completed as part of a three hour research course, and submitted at least three weeks prior to the last day of classes of the term. It is then critiqued by the faculty mentor, returned to the student for revision and resubmission following the guidelines of the advanced writing requirement by the last day of classes of the term.

Honors with Distinction will be awarded to students whose theses are judged by a faculty committee of at least three members to be of exemplary quality, and if carried to fruition, would warrant publication in a journal in the field of work.

Biology (B.A., B.S.) and Molecular Biology (B.S.)

Faculty

Professors: Lee A. Bulla, Santosh D'Mello, Rockford K. Draper, Juan González, Steven R. Goodman, Donald M. Gray, Stephen D. Levene, Robert M. Marsh, Betty S. Pace, Lawrence J. Reitzer, Li Zhang

Associate Professors: Gail A.M. Breen, John G. Burr, Jeff L. DeJong, Ernest M. Hannig, Dennis L. Miller

Assistant Professors: Tianbing Xia

Professor Emeritus: Hans Bremer, Claud S. Rupert

Senior Lecturers: Vincent P. Cirillo, Robert C. Marsh, John Moltz, Scott A. Rippel, Ilya Sapozhnikov

The Biology Program at U.T. Dallas emphasizes the unifying molecular and cellular nature of organisms. At the center of the Biology undergraduate curriculum are the biochemical, genetic, and cell biology concepts and tools used to study the genes of prokaryotes and eukaryotes, to study the proteins and ribonucleic acids (RNA) encoded by these genes, and to study how the expression of these genes is regulated during the development and lifetimes of organisms. Molecular Biology represents a fusion of the four disciplines of biochemistry, biophysics, genetics, and cell biology. Modern biology requires a background in other disciplines such as chemistry, mathematics, physics, and computer sciences. Principles from these disciplines have to be merged to understand and apply new biotechnology and genetic engineering techniques. It is desirable for entering students to have a broad interest and background in the sciences.

Both B.S. and B.A. degrees are offered in Biology at U.T. Dallas; a B.S. degree is offered in Molecular Biology. The B.S. degrees are intended as preparation for scientific careers in biology or careers in the health professions. The B.A. degree is intended as liberal arts biology major with less emphasis on calculus and more free hours for course work in other disciplines. Each degree in Biology offers a streamlined double major with Business Administration or Crime and Justice Studies. Five-year Fast Track B.S. /M.S. Biology and Molecular Biology degree programs are available.

Minors are offered in Biology, Biomolecular Structure, Microbiology, Molecular and Cell Biology, and Neurobiology.

Transfer Students

Students transferring into Biology or Molecular Biology at the junior level in either the B.S. or the B.A. programs are expected to have completed courses equivalent to:

Introductory Biology with lab, BIOL 2311, 2312, and 2281

General Chemistry with lab, CHEM 1311, 1111, 1312, and 1112

Organic Chemistry with lab, CHEM 2323, 2123, 2325, and 2125

Calculus, MATH 2417 and 2419 (B.S. or B.A. degree); or Applied Calculus, MATH 1325, (B.A. degree only)

Physics with lab, calculus-based PHYS 2325, 2125, 2326 and 2126 (B.S. or B.A. degree); or algebra-based PHYS 1301, 1101, 1302, 1102 (B.A. degree only).

Junior-level transfer students deficient in these lower-division requirements may satisfy the requirements with courses taken at U.T. Dallas; however, students deficient in the biology and chemistry requirements may be delayed in entering upper-division biology courses.

Bachelor of Arts or Bachelor of Science in Biology Degree Requirements (124 hours)

I. Core Curriculum Requirements¹: 42 hours

A. Communication (6 hours)

3 hours Communication (RHET 1302)

3 hours Communication Elective (BIOL 4337, BIOL 4390, BIOL 4391, BIOL 4398, BIOL 4399 or NATS 4310)²

B. Social and Behavioral Sciences (15 hours)

6 hours Government (GOVT 2301 and 2302)

6 hours American History

3 hours Social and Behavior Sciences Elective

- C. Humanities and Fine Arts (6 hours)
 3 hours Fine Arts (ARTS 1301)
 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 6 hours Calculus (MATH 2413 and 2414) - BA or BS ³
or Applied Calculus and Statistics for Life Sciences (MATH 1325 and STAT 3332) -BA only
- E. Science (9 hours)
 9 hours Chemistry (CHEM 1311/1111, 1312/1112 and 2123)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parenthesis are recommended as the most efficient way to satisfy both Core Curriculum and Major requirements at UT Dallas.

II. Major Requirements: 53 - 61 hours (53-55, B.A.; 61, B.S.)

Major Preparatory Courses (16-18 hours beyond Core Curriculum)

- CHEM 1311/1111, 1312/ 1112 General Chemistry I and II with Laboratory
 CHEM 2323*/2123* and 2325/2125 Introductory Organic Chemistry I and II with Laboratory
 MATH 2413 Differential Calculus and 2414 Integral Calculus (BA or BS)
or MATH 1325 Applied Calculus I
 and STAT 3332 Statistics for Life Sciences (BA only)
 PHYS 3341/3041/1101 Physics for Bio Science I with Recitation/Laboratory (BA or BS)
or PHYS 1301/1101 College Physics I with Laboratory (BA only)
 PHYS 3342/3041/1102 Physics for Bio Science II with Recitation/Laboratory (BA or BS)
or PHYS 1302/1102 College Physics II with Laboratory (BA only)

Major Core Courses (29-32 hours)

- BIOL 2281* Introductory Biology Laboratory
 BIOL 2111* Introduction to Modern Biology Workshop
 BIOL 2112* Introduction to Modern Biology Workshop II
 BIOL 2311* Introduction to Modern Biology I
 BIOL 2312* Introduction to Modern Biology II
 BIOL 3101 Classical and Molecular Genetics Workshop
 BIOL 3102 Eukaryotic Molecular and Cell Biology Workshop
 BIOL 3161 Biochemistry Workshop I
 BIOL 3162 Biochemistry Workshop II
 BIOL 3301 Classical and Molecular Genetics
 BIOL 3302 Eukaryotic Molecular and Cell Biology
 BIOL 3361 Biochemistry I
 BIOL 3362 Biochemistry II
or BIOL 3335 Microbial Physiology
 BIOL 3380 Biochemistry Laboratory
 BIOL 4380 Cell and Molecular Biology Laboratory (BS only)

Major Related Courses (9-12 hours)⁴

- 9 hours upper-division BIOL electives (BA only)
 12 hours upper-division BIOL electives (BS only)

² Biology majors may choose BIOL 4337, BIOL 4390, BIOL 4391, BIOL 4398, BIOL 4399 or NATS 4310 or another approved Biology elective to fulfill the Core Curriculum Communication Elective.

³ Six hours of Calculus are counted under Mathematics Core, and 2 hours of Calculus are counted as Major Preparatory Courses.

⁴ Up to 3 hours of individual instruction may be used in fulfilling this requirement.

* Indicates a prerequisite class to be completed before enrolling for upper-division classes.

III. Elective Requirements: 21 - 29 hours

Advanced Electives

All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites. These may be satisfied with CHEM 2323 and 2325, counted under Major Preparatory Courses.

Free Electives (21 hours for BS; 27-29 hours for BA)

All students must complete at least 51 hours of upper-division credit to graduate.

Bachelor of Science in Molecular Biology Degree Requirements (129 hours)

I. Core Curriculum Requirements¹: 41 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (BIOL 4337, BIOL 4390, BIOL 4391, BIOL 4398, BIOL 4399 or NATS 4310)²
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavior Sciences Elective
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 6 hours Calculus (MATH 2417 and 2419)³
- E. Science (9 hours)
 - 9 hours Chemistry (CHEM 1311/1111, 1312/1112 and 2123)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parenthesis are recommended as the most efficient way to satisfy both Core Curriculum and Major requirements at UT Dallas.

II. Major Requirements: 68-69 hours

Major Preparatory Courses (20-21 hours beyond Core Curriculum)

- CHEM 1111 General Chemistry Laboratory I
- CHEM 1112 General Chemistry Laboratory II
- CHEM 1311 General Chemistry I
- CHEM 1312 General Chemistry II
- CHEM 2123* Introductory Organic Chemistry Laboratory I
- CHEM 2125 Introductory Organic Chemistry Laboratory II
- CHEM 2323* Introductory Organic Chemistry I
- CHEM 2325 Introductory Organic Chemistry II
- MATH 2417 Calculus I
- MATH 2419 Calculus II
- MATH 2418 Linear Algebra
- PHYS 2125 Physics Laboratory I
- PHYS 2126 Physics Laboratory II
- PHYS 3341/3041 Physics for Bio Science I with Recitation
- PHYS 3342/3042 Physics for Bio Science II with Recitation

Major Core Courses (36 hours)

- BIOL 2111* Introduction to Modern Biology Workshop I
- BIOL 2112* Introduction to Modern Biology Workshop II
- BIOL 2281* Introductory Biology Laboratory
- BIOL 2311* Introduction to Modern Biology I
- BIOL 2312* Introduction to Modern Biology II
- BIOL 3101 Classical and Molecular Genetics Workshop
- BIOL 3102 Eukaryotic Molecular and Cell Biology Workshop
- BIOL 3161 Biochemistry Workshop I
- BIOL 3162 Biochemistry Workshop II
- BIOL 3301 Classical and Molecular Genetics
- BIOL 3302 Eukaryotic Molecular and Cell Biology
- BIOL 3361 Biochemistry I
- BIOL 3362 Biochemistry II
- or BIOL 3335 Microbial Physiology
- BIOL 3380 Biochemistry Laboratory

BIOL 4380 Cell & Molecular Biology Laboratory
 or BIOL 3V96 (3 hours) Undergraduate Research in Molecular and Cell Biology⁴
 or BIOL 4399 (3 hours) Senior Honors Research in Molecular and Cell Biology
 BIOL 4461 Biophysical Chemistry
 Major Related Courses (12 hours)⁵
 12 hours upper-division approved molecular biology-related BIOL or CHEM electives

² Molecular Biology majors may choose BIOL 4337, BIOL 4390, BIOL 4391, BIOL 4398, BIOL 4399, NATS 4310 or another approved Biology elective to fulfill the Core Curriculum Communication Elective.

³ Six hours of Calculus are counted under Mathematics Core, and 2 hours of Calculus are counted as Major Preparatory Courses.

⁴ These substitutes for BIOL 4380 require permission of the Biology Undergraduate Advisor to ensure equivalent training in recombinant DNA analysis.

⁵ Up to 6 hours of research may be used in fulfilling the major related course requirement.

* Indicates a prerequisite class to be completed before enrolling for upper-division classes.

III. Elective Requirements: 18-19 hours

Advanced Electives

All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites. These may be satisfied with CHEM 2323 and 2325, counted under Major Preparatory Courses.

Free Electives (18-19 hours)

All students must complete at least 51 hours of upper-division credit to graduate.

Bachelor of Arts or Bachelor of Science in Biology and Business Administration Degree Requirements (Double Major - 134-136 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (BA 4305)²
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavior Sciences Elective (ECON 2301)²
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 6 hours Calculus (MATH 2413 and 2414)³ - BA or BS
 or Applied Calculus (MATH 1325 and 1326) - BA only
- E. Science (9 hours)
 - 9 hours Chemistry (CHEM 1311/1111, 1312/1112 and 2123)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parenthesis are recommended as the most efficient way to satisfy both Core Curriculum and Major requirements at UT Dallas.

II. Major Requirements: 80-82 hours

Biology Major Preparatory Courses (15-17 hours beyond Core Curriculum)

- CHEM 1111 General Chemistry Laboratory I
- CHEM 1112 General Chemistry Laboratory II
- CHEM 1311 General Chemistry I
- CHEM 1312 General Chemistry II
- CHEM 2123* Introductory Organic Chemistry Laboratory I
- CHEM 2125* Introductory Organic Chemistry Laboratory II
- CHEM 2323* Introductory Organic Chemistry I
- CHEM 2325* Introductory Organic Chemistry II

- MATH 2413 Differential Calculus and 2414 Integral Calculus (BA or BS) ³
or MATH 1325 and 1326 Applied Calculus I and II (BA only)
 PHYS 3341/3041/1101 Physics for BioScience I with Recitation/Laboratory (BA or BS)
or PHYS 1301/1101 College Physics I with Laboratory (BA only)
 PHYS 3342/3042 Physics for BioScience II with Recitation/Laboratory (BA or BS)
or PHYS 1302/1102 College Physics II with Laboratory (BA only)

Biology Major Core Courses (29 hours)

- BIOL 2111* Introduction to Modern Biology Workshop I
 BIOL 2112* Introduction to Modern Biology Workshop II
 BIOL 2281* Introductory Biology Laboratory
 BIOL 2311* Introduction to Modern Biology I
 BIOL 2312* Introduction to Modern Biology II
 BIOL 3101 Classical and Molecular Genetics Workshop
 BIOL 3102 Eukaryotic Molecular and Cell Biology Workshop
 BIOL 3161 Biochemistry Workshop I
 BIOL 3162 Biochemistry Workshop II
 BIOL 3301 Classical and Molecular Genetics
 BIOL 3302 Eukaryotic Molecular and Cell Biology
 BIOL 3361 Biochemistry I
 BIOL 3362 Biochemistry II
or BIOL 3335 Microbial Physiology
 BIOL 3380 Biochemistry Laboratory

Business Administration Major Preparatory Courses (15 hours beyond Core Curriculum)

- AIM 2301* Introductory Financial Accounting
 AIM 2302* Introductory Management Accounting
 BA 2301* Business and Public Law
 ECON 2301* Principles of Macroeconomics²
 ECON 2302* Principles of Microeconomics
 MATH 2333* Matrices, Vectors and Their Application

Business Administration Core Courses (21 hours)

- BA 3341 Business Finance
 BA 3351 Introduction to Management Information Systems
 BA 3352 Production Management
 BA 3361 Organizational Behavior
 BA 3365 Principles of Marketing
 BA 4305 Strategic Management ²
 BA 4371 International Business
 STAT 3360 Probability and Statistics for Management and Economics
or STAT 3332 Statistics for Life Sciences

² A required Major course that also fulfills a Core Curriculum requirement. Hours are counted in Core Curriculum.

³ Six hours of Calculus are counted under Mathematics Core, and 2 hours of Calculus are counted as Major Preparatory Courses.

* Indicates a prerequisite class to be completed before enrolling for upper-division classes.

III. Elective Requirements: 12 hours

Advanced Electives

All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites. These may be satisfied with CHEM 2323 and 2325, counted under Major Preparatory Courses.

Guided Electives (12 hours)

Business Administration (9 hours): To be selected from AIM and BA courses.

Biology (3 hours): BIOL 4380 Cell and Molecular Biology Laboratory (must be taken for the Biology elective in BS only). All students must complete at least 51 hours of upper-division credit to graduate.

Bachelor of Science in Molecular Biology and Business Administration Degree Requirements (Double Major – 140 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (BA 4305)²
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavior Sciences Elective (ECON 2301)²
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 6 hours Calculus (MATH 2417 and 2419)³
- E. Science (9 hours)
 - 9 hours Chemistry (CHEM 1311/1111, 1312/1112 and 2123)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parenthesis are recommended as the most efficient way to satisfy both Core Curriculum and Major requirements at UT Dallas.

II. Major Requirements: 86 hours

Biology Major Preparatory Courses (17 hours beyond Core Curriculum)

- CHEM 1111 General Chemistry Laboratory I
- CHEM 1112 General Chemistry Laboratory II
- CHEM 1311 General Chemistry I
- CHEM 1312 General Chemistry II
- CHEM 2123* Introductory Organic Chemistry Laboratory I
- CHEM 2125* Introductory Organic Chemistry Laboratory II
- CHEM 2323* Introductory Organic Chemistry I
- CHEM 2325* Introductory Organic Chemistry II
- MATH 2417 Calculus I ³
- MATH 2419 Calculus II ³
- PHYS 3341/3041/1101 Physics for Bio Science I with Recitation/Laboratory
- PHYS 3342/3402/1102 Physics for Bio Science II with Recitation/Laboratory

Biology Major Core Courses (33 hours)

- BIOL 2111* Introduction to Modern Biology Workshop I
- BIOL 2112* Introduction to Modern Biology Workshop II
- BIOL 2281* Introductory Biology Laboratory
- BIOL 2311* Introduction to Modern Biology I
- BIOL 2312* Introduction to Modern Biology II
- BIOL 3101 Classical and Molecular Genetics Workshop
- BIOL 3102 Eukaryotic Molecular and Cell Biology Workshop
- BIOL 3161 Biochemistry Workshop I
- BIOL 3162 Biochemistry Workshop II
- BIOL 3301 Classical and Molecular Genetics
- BIOL 3302 Eukaryotic Molecular and Cell Biology
- BIOL 3361 Biochemistry I
- BIOL 3362 Biochemistry II
- or BIOL 3335 Microbial Physiology
- BIOL 3380 Biochemistry Laboratory
- BIOL 4461 Biophysical Chemistry

Business Administration Major Preparatory Courses (15 hours beyond Core Curriculum)

- AIM 2301* Introductory Financial Accounting

AIM 2302* Introductory Management Accounting
 BA 2301* Business and Public Law
 ECON 2301* Principles of Macroeconomics²
 ECON 2302* Principles of Microeconomics
 MATH 2333* Matrices, Vectors and Their Application
 Business Administration Core Courses (21 hours)
 BA 3341 Business Finance
 BA 3351 Introduction to Management Information Systems
 BA 3352 Production Management
 BA 3361 Organizational Behavior
 BA 3365 Principles of Marketing
 BA 4305 Strategic Management ²
 BA 4371 International Business
 STAT 3360 Probability and Statistics for Management and Economics
 or STAT 3332 Statistics for Life Sciences

² A required Major course that also fulfills a Core Curriculum requirement. Hours are counted in Core Curriculum.

³ Six hours of Calculus are counted under Mathematics Core, and 2 hours of Calculus are counted as Major Preparatory Courses.

* Indicates a prerequisite class to be completed before enrolling for upper-division classes.

III. **Elective Requirements: 12 hours**

Advanced Electives

All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites. These may be satisfied with CHEM 2323 and 2325, counted under Major Preparatory Courses.

Guided Electives (12 hours)

Business Administration (9 hours): To be selected from AIM and BA courses.

Biology (3 hours): To be selected from BIOL 4380, BIOL 3V96 (3 hours)⁴ and BIOL 4399 (3 hours)⁴

All students must complete at least 51 hours of upper-division credit to graduate.

⁴ Requires permission of the Biology Undergraduate Advisor to ensure training in recombinant DNA analysis.

Bachelor of Arts or Bachelor of Science in Biology and Criminology Degree Requirements (Double Major – 122-124 hours)

I. **Core Curriculum Requirements¹: 42 hours**

A. Communication (6 hours)

3 hours Communication (RHET 1302)

3 hours Communication Elective (BIOL 4337, BIOL 4390, BIOL 4391, BIOL 4398, BIOL 4399, CRIM 3300, or NATS 4310)²

B. Social and Behavioral Sciences (15 hours)

6 hours Government (GOVT 2301 and 2302)

6 hours American History

3 hours Social and Behavior Sciences Elective (ECON 2301 or 2302)³

C. Humanities and Fine Arts (6 hours)

3 hours Fine Arts (ARTS 1301)

3 hours Humanities (HUMA 1301)

D. Mathematics and Quantitative Reasoning (6 hours)

6 hours Calculus (MATH 2413 and 2414)⁴ – BA or BS

or Applied Calculus (MATH 1325) and either Statistics for Life Sciences (STAT 3332) or Introduction to Social Statistics with

Laboratory (SOCS 3405) – BA only

E. Science (9 hours)

9 hours Chemistry (CHEM 1311/1111, 1312/1112 and 2123)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parenthesis are recommended as the most efficient way to satisfy both Core Curriculum and Major requirements at UT Dallas.

II. Major Requirements: 68-70 hours

Biology Major Preparatory Courses (15-17 hours beyond Core Curriculum)

- CHEM 1111 General Chemistry Laboratory I
- CHEM 1112 General Chemistry Laboratory II
- CHEM 1311 General Chemistry I
- CHEM 1312 General Chemistry II
- CHEM 2123* Introductory Organic Chemistry Laboratory I
- CHEM 2125* Introductory Organic Chemistry Laboratory II
- CHEM 2323* Introductory Organic Chemistry I
- CHEM 2325* Introductory Organic Chemistry II
- MATH 2413 Differential Calculus and 2414 Integral Calculus (BA or BS) ³
or MATH 1325 Applied Calculus I
and either STAT 3332 Statistics for Life Sciences
or SOCS 3405 Introduction to Social Statistics with Lab (BA only)
- PHYS 3341/3041/1101 Physics for BioScience I with Recitation/Laboratory (BA or BS)
or PHYS 1301/1101 College Physics I with Laboratory (BA only)
- PHYS 3342/3042/1102 Physics for BioScience II with Recitation/Laboratory (BA or BS)
or PHYS 1302/1102 College Physics II with Laboratory (BA only)

Biology Major Core Courses (32 hours)

- BIOL 2111* Introduction to Modern Biology Workshop I
- BIOL 2112* Introduction to Modern Biology Workshop II
- BIOL 2281* Introductory Biology Laboratory
- BIOL 2311* Introduction to Modern Biology I
- BIOL 2312* Introduction to Modern Biology II
- BIOL 3101 Classical and Molecular Genetics Workshop
- BIOL 3102 Eukaryotic Molecular and Cell Biology Workshop
- BIOL 3161 Biochemistry Workshop I
- BIOL 3162 Biochemistry Workshop II
or BIOL 3335 Microbial Physiology
- BIOL 3301 Classical and Molecular Genetics
- BIOL 3302 Eukaryotic Molecular and Cell Biology
- BIOL 3318 Forensic Biology
- BIOL 3361 Biochemistry I
- BIOL 3362 Biochemistry II
- BIOL 3380 Biochemistry Laboratory

Crime and Justice Studies Major Preparatory Course (No hours beyond Core Curriculum)

- ECON 2301 Principles of Macroeconomics
or ECON 2302 Principles of Microeconomics³

Crime and Justice Studies Core Courses (18 hours)

- CRIM 3300 Crime and Civil Liberties
- CRIM 3301 Theories of Justice
or another Social Science course with a distributive justice emphasis such as SOC 4361 Law and Society, *or* ECON 4320 Public Sector Economics
- CRIM 3302 Advanced Criminology
- CRIM 3303 Advanced Criminal Justice
- CRIM 3304 Research Methods in Crime and Justice Studies
- CRIM 3319 Comparative Justice Systems
- CRIM 4305 Social Control and Criminal Sanctions
- CRIM 4321 Senior Research Seminar

² Double majors may choose BIOL 4337, BIOL 4390, BIOL 4391, BIOL 4398, BIOL 4399, CRIM 3301, PSCI 3325, NATS 4310 or another approved Biology elective to fulfill the Core Curriculum Communication Elective.

³ A required Major course that also fulfills a Core Curriculum requirement. Hours are counted in Core Curriculum.

⁴ Six hours of Calculus are counted under Mathematics Core, and 2 hours of Calculus are counted as Major Preparatory Courses.

* Indicates a prerequisite class to be completed before enrolling for upper-division classes.

III. **Elective Requirements: 15 hours**

Advanced Electives

All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites. These may be satisfied with CHEM 2323 and 2325, counted under Major Preparatory Courses.

Guided Electives (15 hours)

Biology (6 hours): BIOL 4380 Cell and Molecular Biology Laboratory (must be taken for one of the Biology electives in BS only).

Crime and Justice Studies and Related Electives (9 hours): All students must complete at least 51 hours of upper-division credit to graduate.

Bachelor of Science in Molecular Biology and Criminology Degree Requirements (Double Major – 128-129 hours)

I. **Core Curriculum Requirements¹: 42 hours**

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (BIOL 4337, BIOL 4390, BIOL 4391, BIOL 4398, BIOL 4399, CRIM 3300, or NATS 4310)²
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavior Sciences Elective (ECON 2301 or 2302)³
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 6 hours Calculus (MATH 2417 and 2419)⁴
- E. Science (9 hours)
 - 9 hours Chemistry (CHEM 1311/1111, 1312/1112 and 2123)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parenthesis are recommended as the most efficient way to satisfy both Core Curriculum and Major requirements at UT Dallas.

II. **Major Requirements: 77-78 hours**

Biology Major Preparatory Courses (20-21 hours beyond Core Curriculum)

- CHEM 1111 General Chemistry Laboratory I
 - CHEM 1112 General Chemistry Laboratory II
 - CHEM 1311 General Chemistry I
 - CHEM 1312 General Chemistry II
 - CHEM 2123* Introductory Organic Chemistry Laboratory I
 - CHEM 2125* Introductory Organic Chemistry Laboratory II
 - CHEM 2323* Introductory Organic Chemistry I
 - CHEM 2325* Introductory Organic Chemistry II
 - MATH 2417 Calculus I ³
 - MATH 2419 Calculus II ³
 - MATH 2418 Linear Algebra
 - or STAT 3332 Statistics for Life Sciences
 - or SOCS 3405 Introduction to Social Statistics with Lab
 - PHYS 3341/3041/1101 Physics for Bio Science I with Recitation/Laboratory
 - PHYS 3342/3042/1102 Physics for Bio Science II with Recitation/Laboratory
- Biology Major Core Courses (36 hours)
- BIOL 2111* Introduction to Modern Biology Workshop I

- BIOL 2112* Introduction to Modern Biology Workshop II
 BIOL 2281* Introductory Biology Laboratory
 BIOL 2311* Introduction to Modern Biology I
 BIOL 2312* Introduction to Modern Biology II
 BIOL 3101 Classical and Molecular Genetics Workshop
 BIOL 3102 Eukaryotic Molecular and Cell Biology Workshop
 BIOL 3161 Biochemistry Workshop I
 BIOL 3162 Biochemistry Workshop II
 BIOL 3301 Classical and Molecular Genetics
 BIOL 3302 Eukaryotic Molecular and Cell Biology
 BIOL 3318 Forensic Biology
 BIOL 3361 Biochemistry I
 BIOL 3362 Biochemistry II
 or BIOL 3335 Microbial Physiology
 BIOL 3380 Biochemistry Laboratory
 BIOL 4461 Biophysical Chemistry
 Crime and Justice Studies Major Preparatory Course (No hours beyond Core Curriculum)
 ECON 2301 Principles of Macroeconomics
 or ECON 2302 Principles of Microeconomics³
 Crime and Justice Studies Core Courses (18 hours)
 CRIM 3300 Crime and Civil Liberties
 CRIM 3301 Theories of Justice
 or another Social Science course with a distributive justice emphasis such as SOC 4361 Law and Society, *or*
 ECON 4320 Public Sector Economics
 CRIM 3302 Advanced Criminology
 CRIM 3303 Advanced Criminal Justice
 CRIM 3304 Research Methods in Crime and Justice Studies
 CRIM 3319 Comparative Justice Systems
 CRIM 4305 Social Control and Criminal Sanctions
 CRIM 4321 Senior Research Seminar

² Double majors may choose BIOL 4337, BIOL 4390, BIOL 4391, BIOL 4398, BIOL 4399, CRIM 3301, PSCI 3325, NATS 4310 or another approved Biology elective to fulfill the Core Curriculum Communication Elective.

³ A required Major course that also fulfills a Core Curriculum requirement. Hours are counted in Core Curriculum.

⁴ Six hours of Calculus are counted under Mathematics Core, and 2 hours of Calculus are counted as Major Preparatory Courses.

* Indicates a prerequisite class to be completed before enrolling for upper-division classes.

III. Elective Requirements: 12 hours

Advanced Electives

All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites. These may be satisfied with CHEM 2323 and 2325, counted under Major Preparatory Courses.

Guided Electives (12 hours)

Crime and Justice Studies and Related Electives (9 hours): All students must complete at least 51 hours of upper-division credit to graduate.

Biology (3 hours): To be selected from BIOL 4380, BIOL 3V96 (3 hours)⁵ and BIOL 4399 (3 hours)⁵

All students must complete at least 51 hours of upper-division credit to graduate.

⁵ Requires permission of the Biology Undergraduate Advisor to ensure training in recombinant DNA analysis.

Minor in Biology

Course Requirements: 18 hours

BIOL 2311/2111 Introduction to Modern Biology I with Workshop

BIOL 3301/3101 Classical and Molecular Genetics with Workshop

BIOL 3361/3161 Biochemistry I with Workshop

Two BIOL electives for majors

Minor in Biomolecular Structure

Course Requirements: 18 hours

- BIOL 3336 Protein and Nucleic Acid Structure
- BIOL 4461 Biophysical Chemistry, unless taken to fulfill the Molecular Biology major requirements
- BIOL 4261 Biomolecular Modeling
- CHEM 2323 and 2325 Introductory Organic Chemistry I and II
- One to two approved BIOL, CHEM, CS, EE, MATH, or PHYS electives

Minor in Molecular and Cell Biology

Course Requirements: 18 hours

- CHEM 2323 and 2325 Introductory Organic Chemistry I and II
- Four approved molecular and cell biology electives

Minor in Microbiology

Course Requirements: 18 hours

- BIOL 3V20 General Microbiology with Laboratory¹
- BIOL 3335 Microbial Physiology²
- BIOL 4350 Medical Microbiology
or BIOL 4316 Parasites and Symbionts
- BIOL 4345 Immunobiology
- CHEM 2323 Introductory Organic Chemistry I
- One approved microbiology elective

¹ Two hrs of BIOL 3V20 may be used to satisfy the Cell and Molecular Biology Laboratory core requirement for Biology and Molecular Biology majors.

² May be substituted with CHEM 2325 Introductory Chemistry II if used to satisfy the Biochemistry II core requirement for Biology and Molecular Biology majors.

Minor in Neurobiology

Course Requirements: 18 hours

- BIOL 4370 Developmental Neurobiology
- BIOL 3371 Biology of the Brain
or NSC 4352 Cellular Neuroscience
- CHEM 2323 and 2325 Introductory Organic Chemistry I and II
- NSC 4353 Neuroscience Laboratory Methods
- NSC 4354 Integrative Neuroscience

Fast Track Baccalaureate/Master's Degrees

U.T. Dallas undergraduate students with strong academic records, including at least 15 hours of upper-division Biology core courses, who intend to pursue graduate work in Biology at U.T. Dallas, may apply for the Fast Track which involves taking selected graduate courses as an upper-division student. After admission to the graduate program, 15 hours of graduate courses with an earned grade of B or better can be used toward completion of the B.S. and to satisfy requirements for those courses at the graduate level. Graduate courses must be approved by the graduate advisor. This program provides an opportunity to obtain the B.S. degree in Biology after 124 hours of work and an M.S. degree in Molecular and Cell Biology after an additional 21 hours of graduate course and research work. Interested students should contact the Biology undergraduate advisor well in advance of the senior year to prepare a degree plan taking maximal advantage of this 5-year Fast Track program.

Degree Planning

Upper-division biology courses taken at other institutions may be included as part of the degree plan subject to the provisions of the section on Transfer Admissions.

Major-related courses may not include more than 9 hours (B.S.) or 6 hours (B.A.) of upper-division transfer credit and not more than 3 hours (Biology major) or 6 hours (Molecular Biology major) of individual instruction (e.g., BIOL 3V90, BIOL 3V91, BIOL 3V92, BIOL 3V95, BIOL 3V96, BIOL 4302, BIOL 4390, BIOL 4391, BIOL 4398, BIOL 4399, BIOL 4V98, or BIOL 4V99).

Students planning a career in a particular allied health profession should consult the school they expect to attend to apprise themselves of the course requirements for admission.

Admission standards for medical and dental schools are set by the individual professional school, whose specific requirements should be reviewed with the help of the U.T. Dallas Health Professions Education Advisors. Most professional schools prefer that admission applications be channeled through the Health Professions Education Office.

Biochemistry (B.S.)

The Biochemistry program at U.T. Dallas, administered through the Department of Chemistry, draws on faculty from the Departments of Chemistry, Molecular and Cell Biology, and researchers from U.T. Southwestern Medical School to provide courses and research opportunities to its majors. The Biochemistry major bridges the gap between modern Chemistry and Biology. The curriculum, designed to prepare students for either graduate work in the Biological Sciences, the Chemical Sciences, or for entry-level positions in the biotechnology industry, builds on a base of biology, chemistry, physics, and mathematics to provide the student the opportunity to develop essential theoretical and practical skills.

Faculty

Chemistry:

Robert A. Welch Chair in Chemistry, Professor of Chemistry: Ray H. Baughman

Cecil and Ida Green Distinguished Chair in Systems Biology; Professor of Chemistry: A. Dean Sherry

Cecil and Ida Green Chair in Systems Biology; Professor of Chemistry: John P. Ferraris

Professors: Kenneth J. Balkus, Jr., Rockford K. Draper (Biology), Bruce E. Gnade (Electrical Engineering)

Associate Professors: Michael C. Biewer, Gregg R. Dieckmann, Warren J. Goux, Inga H. Musselman, Paul Pantano, John W. Sibert IV

Assistant Professors: Jung-Mo Ahn, Steven O. Nielsen

Affiliated Professors: Lee A. Bulla (Biology), Anvar A. Zakhidov (Physics)

Research Professors: Gary E. Kiefer, Duck Joo Yang

Emeritus Professor: Richard A. Caldwell

Senior Lecturers: Sergio Cortes, Sandhya R. Gavva

Molecular and Cell Biology:

Professors: Lee A. Bulla, Santosh D'Mello, Rockford K. Draper, Juan E. González, Steven R. Goodman, Donald M. Gray, Steven D. Levene, Betty S. Pace, Lawrence J. Reitzer, Li Zhang

Associate Professors: Gail A.M. Breen, John G. Burr, Jeff L. DeLong, Ernest M. Hannig, Dennis L. Miller, Stephen Spiro

Assistant Professor: Tianbing Xia

Senior Lecturers: Vincent P. Cirillo, Robert C. Marsh, John Moltz, Scott A. Rippel, Ilya Sapozhnikov

U.T. Southwestern Medical School:

UTD Biochemistry majors may perform their research in the laboratories of faculty members from the departments of Biochemistry, Internal Medicine, Pharmacology and Physiology at U.T. Southwestern, as available.

Bachelor of Science in Biochemistry Degree Requirements (B.S. 129 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 1 hour Oral Communication (RHET 1101)
 - 3 hours Communication Elective (Satisfied by BIOL/CHEM 4390 or equivalent) ²
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Sciences Elective
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours) ³
 - 6 hours Calculus (MATH 2417 and 2419) ^{2, 3}
- E. Science (9 hours)
 - Introductory Chemistry (CHEM 1311/1111, 1312/1112, and 2401) ³

II. Major Requirements:

- Major Preparatory Courses (29 hours beyond core curriculum)
 - BIOL 2111 Introduction to Modern Biology Workshop I
 - BIOL 2311 Introduction to Modern Biology I
 - CHEM 1111 General Chemistry Laboratory I ^{2, 3}
 - or CHEM 1115 Honors Freshman Chemistry Laboratory I ^{2, 3}
 - CHEM 1112 General Chemistry Laboratory II ^{2, 3}
 - or CHEM 1116 Honors Freshman Chemistry Laboratory II ^{2, 3}
 - CHEM 1311 General Chemistry I ^{2, 3}
 - or CHEM 1315 Honors Freshman Chemistry I ^{2, 3}
 - CHEM 1312 General Chemistry II ^{2, 3}
 - or CHEM 1316 Honors Freshman Chemistry II ^{2, 3}
 - CHEM 2123 Introductory Organic Chemistry Laboratory I *
 - CHEM 2125 Introductory Organic Chemistry Laboratory II *
 - CHEM 2323 Introductory Organic Chemistry I *
 - CHEM 2325 Introductory Organic Chemistry II *
 - CHEM 2401 Introductory Quantitative Methods in Chemistry ^{2, 3}
 - MATH 2417 Calculus I ³
 - MATH 2419 Calculus II ³
 - MATH 2451 Multivariable Calculus with Applications
 - PHYS 2125 Physics Laboratory I
 - PHYS 2126 Physics Laboratory II
 - PHYS 2325 Mechanics
 - or PHYS 3341 Physics for Bio Science I
 - or PHYS 2421 Honors Physics I – Mechanics and Heat
 - PHYS 2326 Electromagnetism and Waves
 - or PHYS 3342 Physics for Bio Science II
 - or PHYS 2422 Honors Physics II – Electromagnetism and Waves
- Major Core Courses (40 hours beyond core curriculum)
 - BIOL 3101 Classical and Molecular Genetics Workshop
 - BIOL 3102 Eukaryotic Molecular and Cell Biology Workshop
 - BIOL 3161 Biochemistry Workshop I
 - BIOL 3162 Biochemistry Workshop II
 - BIOL 3301 Classical and Molecular Genetics
 - BIOL 3302 Eukaryotic Molecular and Cell Biology

BIOL 3380 Biochemistry Laboratory
 BIOL/CHEM 3361 Biochemistry I
 BIOL/CHEM 3362 Biochemistry II
 BIOL 3V93 (3 hours) Undergraduate Research in Biochemistry ⁴
 or CHEM 3V92 (3 hours) Undergraduate Research in Biochemistry ⁴
 or CHEM 4V91 (3 hours) Research in Chemistry ⁴
 CHEM 3321 Physical Chemistry I
 CHEM 3322 Physical Chemistry II
 CHEM 3472 Instrumental Analysis
 CHEM 4390 Research and Advanced Writing in Chemistry ^{2, 4}
 or BIOL 4391 Senior Research in Molecular and Cell Biology (Advanced Writing) ^{2, 4}
 or BIOL 4399 Senior Honors Research in Molecular and Cell Biology (Thesis/Advanced Writing) ^{2, 4} or CHEM 4399
 Research and Advanced Writing in Chemistry for Honors Students ^{2, 4}
 Any two upper-division Chemistry or Biology electives (6 hours) not taken to fulfill above.

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

² A required Major course that also fulfills Core Curriculum requirements. If hours are counted in the Core Curriculum, students must complete additional coursework to meet the minimum requirement for graduation. Course selection assistance is available from the undergraduate advisor.

³ Hours above the Core Curriculum requirement are counted as part of the Major Preparatory Courses.

⁴ Undergraduate Research in Biochemistry (BIOL 3V93/CHEM 3V92), Research in Chemistry (CHEM 4V91), Research and Advanced Writing in Advanced Chemistry (CHEM 4390), Senior Research in Molecular and Cell Biology (Advanced Writing) (BIOL 4391), Senior Honors Research in Molecular and Cell Biology (Thesis/Advanced Writing) (BIOL 4399), and Research and Advanced Writing in Chemistry for Honors Students (CHEM 4399) are better defined as a project than a course and constitutes an important part of the B. S. degree. The student conducts original research under the supervision of a faculty member, then must submit a research report which is defended orally in an undergraduate research symposium during the spring semester of their senior year. Normally this project will span two or more semesters. A complete set of guidelines is available from the undergraduate advisor.

* Indicates a prerequisite class to be completed before enrolling for upper-division classes.

III. Elective Requirements: 18 hours

Advanced Electives (6 hours)

These courses must be outside the major and be upper-division and/or have prerequisites.

Free Electives (12 hours)

The plan must include sufficient upper-division credit to total 51 upper-division credit hours.

STAT 3332 Statistics for Life Sciences is strongly recommended.

Chemistry (B.A., B.S.)

The Chemistry major builds on a base of chemistry, physics, mathematics, and computer science to provide the student the opportunity to develop essential theoretical and practical skills in the subdisciplines of organic, physical, inorganic, analytical, and macromolecular chemistry. Typically, the practice of chemistry in industry deals with the synthesis, analysis, and control of the many materials used in our technological society.

The Chemistry program at U.T. Dallas is designed to instruct the student in how chemical experiments are performed, how results are interpreted, and through its integrated laboratory sequence, to emphasize the importance of one subdiscipline in solving problems inherent to another. Meeting these goals, the Chemistry program provides the student with the flexibility to enter industry, go on to graduate school, or pursue medical, dental, and other degrees in the health sciences.

Faculty

Robert A. Welch Chair in Chemistry; Professor of Chemistry: Ray H. Baughman

Cecil and Ida Green Distinguished Chair in Systems Biology; Professor of Chemistry: A. Dean Sherry

Cecil and Ida Green Chair in Systems Biology; Professor of Chemistry: John P. Ferraris

Professors: Kenneth J. Balkus, Jr., Rockford K. Draper (Biology), Bruce E. Gnade (Electrical Engineering)

Associate Professors: Michael C. Biewer, Gregg R. Dieckmann, Warren J. Goux, Inga H. Musselman, Paul Pantano, John W. Sibert IV

Assistant Professors: Jung-Mo Ahn, Steven Nielsen
Affiliated Professors: Lee A. Bulla (Biology), Anvar A. Zakhidov (Physics)
Research Professors: Gary E. Kiefer, Duck Joo Yang
Emeritus Professor: Richard A. Caldwell
Senior Lecturers: Sergio Cortes, Sandhya R. Gavva

Degrees

The Chemistry major may choose a program leading either to the B.A. or B.S. degree. The latter degree sequence has been approved by the American Chemical Society's Committee on Professional Training.

B.A. Program

The B.A. program offers the minimum fundamental knowledge required for adequate professional function in a career in chemistry. It is possible that students choosing this option may, through suitable use of unspecified hours, prepare for careers in areas as varied as chemistry-related businesses, government, medicine and dentistry, secondary school teaching, and even law or politics.

B.S. Program

The B.S. program provides more intensive training in chemistry for the student who intends either to obtain employment at the bachelor's level in the chemical industry or to pursue graduate study.

Bachelor of Arts or Bachelor of Science in Chemistry Degree Requirements (B.S. 122 hours; B.A. 121 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (NATS 4310 or CHEM 4390) ²
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Sciences Elective
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 6 hours Calculus (MATH 2417 and 2419) ^{2,3}
- E. Science (9 hours)
 - Introductory Chemistry (CHEM 1311/1111, 1312/1112, and 2401) ³

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

II. Major Requirements: B.S. 57 hours; B.A. 56 hours

- Major Preparatory Courses (29 hours beyond the Core Curriculum)
- CHEM 1111 General Chemistry Laboratory I ^{2,3}
 - or CHEM 1115 Honors Freshman Chemistry Laboratory I ^{2,3}
 - CHEM 1112 General Chemistry Laboratory II ^{2,3}
 - or CHEM 1116 Honors Freshman Chemistry Laboratory II ^{2,3}
 - CHEM 1311 General Chemistry I ^{2,3}
 - or CHEM 1315 Honors Freshman Chemistry I ^{2,3}
 - CHEM 1312 General Chemistry II ^{2,3}

- or CHEM 1316 Honors Freshman Chemistry II ^{2, 3}
CHEM 2123 Introductory Organic Chemistry Laboratory I *
CHEM 2125 Introductory Organic Chemistry Laboratory II *
CHEM 2323 Introductory Organic Chemistry I *
CHEM 2325 Introductory Organic Chemistry II *
CHEM 2401 Introductory Quantitative Methods in Chemistry ^{2, 3}
MATH 2417 Calculus I ³
MATH 2418 Linear Algebra
or STAT 3332 Statistics for Life Sciences
MATH 2419 Calculus II³
MATH 2451 Multivariable Calculus with Applications
PHYS 2125 Physics Laboratory I
PHYS 2126 Physics Laboratory II
PHYS 2325 Mechanics
PHYS 2326 Electromagnetism and Waves
- Major Core Courses (12 hours)
CHEM 3321 Physical Chemistry I
CHEM 3471 Advanced Chemical Synthesis Laboratory
CHEM 3472 Instrumental Analysis
- Major Related Courses (B.S. 22 hours; B.A. 21 hours)
Bachelor of Arts (18 hours beyond the Core Curriculum)
BIOL/CHEM 3361 Biochemistry I
or CHEM 4335 Polymer Chemistry
CHEM 3341 Inorganic Chemistry I
or CHEM 3322 Physical Chemistry II
Guided Electives - 12 credit hours; may be used in (partial) fulfillment of a Second Major, Minor or Teaching Certificate
Advanced Writing NATS 4310 Advanced Writing in the Natural Sciences and Mathematics ²
- Bachelor of Science (19 hours beyond the Core Curriculum)
CHEM 3322 Physical Chemistry II
CHEM 3341 Inorganic Chemistry I
BIOL/CHEM 3361 Biochemistry I
CHEM 4473 Physical Measurements Laboratory
CHEM 4390 Research and Advanced Writing in Chemistry ^{2, 4}
or CHEM 4399 Research and Advanced Writing in Chemistry for Honors Students ^{2, 4}
CHEM 4V91 (3 hours) Research in Chemistry ⁴
CHEM 3362 Biochemistry II
or CHEM 4335 Polymer Chemistry
or CHEM 4355 Computational Modeling

² A required Major course that also fulfills Core Curriculum requirements. If hours are counted in the Core Curriculum, students must complete additional coursework to meet the minimum requirement for graduation. Course selection assistance is available from the undergraduate advisor.

³ Hours above the Core Curriculum requirement are counted as part of the Major Preparatory Courses.

⁴ Research in Chemistry (CHEM 4V91), Research and Advanced Writing in Chemistry (CHEM 4390), and Research and Advanced Writing in Chemistry for Honors Students (CHEM 4399) are better defined as a project than a course and constitute an important part of the B. S. degree. The student conducts original research under the supervision of a faculty member, then must submit a research report which is defended orally. Normally this project will span two or more semesters. A complete set of guidelines is available from the undergraduate advisor.

* Indicates a prerequisite class to be completed before enrolling for upper division classes.

III. Elective Requirements: 18 hours

Advanced Electives (6 hours)

These courses must be outside the major and be upper-division and/or have prerequisites.

Free Electives (12 hours)

The plan must include sufficient upper-division credit to total 51 upper-division credit hours.

Minor in Chemistry

18 hours that must include

- BIOL 3161 Biochemistry Workshop I
- BIOL/CHEM 3361 Biochemistry I
- CHEM 3321 Physical Chemistry I
- CHEM 3472 Instrumental Analysis

Fast Track Baccalaureate/Master's Degrees

Undergraduate students at U.T. Dallas with strong academic records who intend to pursue the M.S. in Chemistry at U.T. Dallas may apply for a Fast Track plan of study which involves taking selected graduate courses as an upper-level student. After admission to the graduate program, 15 hours of graduate courses with an earned grade of B or better can be used toward completion of the baccalaureate degree and to satisfy requirements for the master's degree. Interested students should contact the undergraduate advisor well in advance of the junior year to prepare a sequence permitting maximal advantage to be taken of the catalog's regulations (see page 30) regarding Undergraduate Registration for Graduate Courses.

Geosciences (B.A., B.S.)

Attaining greater understanding of past and present Earth processes is the fundamental goal of geosciences. To achieve this goal the geoscientist studies the minerals, rocks, fluids, and fossils of the Earth and investigates the physical, chemical, and biological processes occurring on and in the Earth.

Professional opportunities in geology exist in the environmental, energy, and mineral resources industries and in government agencies concerned with these fields. In addition, many occupations concerned with law, management, economics, and the environment utilize a background in geosciences.

Specific degree plans will be formulated by the undergraduate advisor in Geosciences. Changing circumstances may require changes to the degree plans.

Faculty

Professors: Carlos L. V. Aiken, William I. Manton, George A. McMechan, Robert J. Stern

Associate Professors: Thomas H. Brikowski, John F. Ferguson

Professor Emeritus: David E. Dunn, Emile A. Pessagno, Dean C. Presnall, Robert H. Rutherford

Senior Lecturer: Ignacio Pujana

Bachelor of Arts in Geosciences* Degree Requirements (120 hours)

I. Core Curriculum Requirements¹: 42 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (GEOS 4390 or NATS 4310)²
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Sciences Elective
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours)
 - 6 hours College Mathematics

- E. Science (9 hours)
 - 8 hours of Chemistry, Biology or Physics, including laboratory component
 - 1 hour Geosciences Laboratory (GEOS 1103 Physical Geology Laboratory)

II. Major Requirements: 50 hours

- Major Preparatory Courses (15 hours)
 - GEOS 1104 History of Earth and Life Laboratory*
 - GEOS 1303 Physical Geology*
 - GEOS 1304 History of Earth and Life*
 - GEOS 2406 Geospatial Science and Methods
 - GEOS 2409 Rocks and Minerals*
- Major Core Courses (8 hours)
 - GEOS 3421 Stratigraphy and Sedimentology
 - GEOS 3434 Paleobiology
- Major Related Courses (27 hours)
 - Geosciences electives (15 hours)
 - Science electives (12 hours)
 - Advanced Writing (3 hours)
 - GEOS 4390 Senior Research and Advanced Writing ²
 - NATS 4310² Advanced Writing in the Natural Sciences and Mathematics

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

² A Major requirement that also fulfills a Core Curriculum requirement. If hours are counted in the Core Curriculum, students must complete additional coursework to meet the minimum requirements for graduation. Course selection assistance is available from the undergraduate advisor.

III. Elective Requirements: 28 hours

- Advanced Electives (6 hours)
 - All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites.
- Free Electives (22 hours)
 - Both lower- and upper-division courses may count as electives, but students must complete at least 51 hours of upper-division credit to qualify for graduation.

* Must be taken in conjunction with a second major.

Bachelor of Science in Geosciences Degree Requirements (120 hours)

I. Core Curriculum Requirements¹: 49 hours

- A. Communication (6 hours)
 - 3 hours Communication (RHET 1302)
 - 3 hours Communication Elective (GEOS 4390, GEOS 4399 or NATS 4310)²
- B. Social and Behavioral Sciences (15 hours)
 - 6 hours Government (GOVT 2301 and 2302)
 - 6 hours American History
 - 3 hours Social and Behavioral Sciences Elective
- C. Humanities and Fine Arts (6 hours)
 - 3 hours Fine Arts (ARTS 1301)
 - 3 hours Humanities (HUMA 1301)
- D. Mathematics and Quantitative Reasoning (6 hours; 2 hours extra may be counted as free electives)
 - Calculus (MATH 2417 and 2419)
- E. Science (9 hours)
 - 8 hours Chemistry (CHEM 1311, 1111, 1312, 1112)

8 hour Physics (PHYS 2125, 2126, 2325 and 2326)

¹ Curriculum Requirements can be fulfilled by other approved courses from accredited institutions of higher education. The courses listed in parentheses are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at U.T. Dallas.

² A Major requirement that also fulfills a Core Curriculum requirement. If hours are counted in the Core Curriculum, students must complete additional coursework to meet the minimum requirements for graduation. Course selection assistance is available from the undergraduate advisor.

II. Major Requirements: 60 hours

A. Major Preparatory Courses (12 hours beyond Core Curriculum)

Pre-requisite courses to be completed before enrolling in upper-division GEOS courses.

GEOS 1103 Physical Geology Laboratory*

GEOS 1104 History of Earth and Life Laboratory*

GEOS 1303 Physical Geology*

GEOS 1304 History of Earth and Life*

GEOS 2409 Rocks and Minerals*

B. Major Core Courses (39 hours)

GEOS 2406 Geospatial Science and Methods

GEOS 3421 Stratigraphy and Sedimentology

GEOS 3470 Structural Geology

GEOS 4606 Field Geology (Summer Field Camp)

Geology Option (21-22 hours)

GEOS 3434 Paleobiology

GEOS 3464 Igneous and Metamorphic Petrography

GEOS 4320 The Physics and Chemistry of the Solid Earth

GEOS 4322 The Earth System

GEOS 4430 Hydrogeology and Aqueous Geochemistry

A mathematics course selected from:

GEOS 5306 Data Analysis for Geoscientists (with permission)

MATH 2418 Linear Algebra

MATH 2451 Multivariable Calculus with Applications

MATH 4332 Scientific Math Computing

Geophysics Option (24 hours)

MATH 2420 Differential Equations with Applications

MATH 2451 Multivariable Calculus with Applications

MATH 4332 Scientific Math Computing

MATH 4362 Partial Differential Equations

PHYS 3311 Theoretical Physics

PHYS 3312 Classical Mechanics

PHYS 3416 Electricity and Magnetism

III. Elective Requirements: 21 hours

A. Advanced Electives (6 hours)

All students are required to take at least six hours of advanced electives outside their major field of study. These must be either upper-division classes or lower-division classes that have prerequisites.

B. Free Electives (15 hours)

Both lower- and upper-division courses may count as electives, but students must complete at least 51 hours of upper-division credit to qualify for graduation. Students are strongly encouraged to take GEOS graduate courses as free electives.

Fast Track Baccalaureate/Master's Degrees

The Fast-Track program allows students with strong academic records to take selected graduate courses that may be applied toward the baccalaureate degree and be used to satisfy requirements for the master's degree. Interested students who intend to pursue a master's degree in Geosciences may apply for a Fast Track baccalaureate/master's plan of study via the Geosciences graduate advisor. The planned coursework must be coordinated with the Geosciences undergraduate advisor; the Geosciences graduate advisor should also be notified. A maximum of 15 credit hours may be applied under this program.

Geosciences Minor

Students not majoring in Geosciences are encouraged to choose Geosciences as a minor.

Lower-division courses (8 hours):

GEOS 1103 Physical Geology Laboratory *

GEOS 1104 History of Earth and Life Laboratory*

GEOS 1303 Physical Geology *

GEOS 1304 History of Earth and Life *

Upper-division courses (12 hours): To be selected in consultation with Geosciences Undergraduate advisor

*A prerequisite course to be completed before enrolling in upper-division GEOS core courses (GEOS 3421, 3434, 3464, 3470, 4320, 4322, 4430 and 4606).

Mathematical Sciences (B.S.)

Mathematics is both a profession and an indispensable tool for many types of work. As a tool, mathematics is a universal language which has been crucial in formulating and expressing ideas not only in science and engineering, but also in many other areas such as business and the social sciences. As probably the oldest and most basic science, it provides the key to understanding the major technological achievements of our time.

Of equal importance, knowledge of mathematics may help provide a student with the type of uncompromising and clear-sighted thinking useful in considering the problems of many other disciplines. The Mathematical Sciences degree program encompasses mathematics, statistics, and applied mathematics.

Applied mathematics and statistics continue to enjoy a rapid growth. Students have the opportunity of applying their expertise to any of a number of fields of application. For the student to be more effective in such applications, Mathematical Sciences also offers degree programs allowing additional emphasis in the areas of actuarial science, computer science, electrical engineering, and management.

Those interested in obtaining both a B.S. in Mathematical Sciences and Teacher Certification in the state of Texas should consult the Office of Teacher Education for specific requirements as soon as possible after formal admission to the University. See the Teacher Education section of this catalog for additional information.

The Mathematical Sciences degree program also prepares students for graduate studies. An accelerated B.S./M.S. Fast-Track program is available which provides the opportunity for undergraduate students to satisfy some of the requirements of the master's degree while they are completing the bachelor's degree in Mathematical Sciences.

Faculty

Professors: Larry P. Ammann, Michael I. Baron, Sam Efromovich, M. Ali Hooshyar, Patrick L. Odell (Emeritus), Istvan Ozsvath, Viswanath Ramakrishna, Ivor Robinson (Emeritus), Robert Serfling, Janos Turi, John W. Van Ness (Emeritus), John Wiorkowski

Assistant Professor: Yan Cao, Pankaj Choudhary, Mieczyslaw Dabkowski

Affiliated Faculty: Herve Abdi (BBS), Titu Andreescu, Alain Bensoussan (SOM), Thomas Butts (SME), Raimond Ober (EE)

Senior Lecturers: Frank R. Allum, Bentley Garrett, Yuly Koshevnik, Grigory Kramer, David L. Lewis, Charles R. McGhee, Joanna R. Robinson, William Scott, Paul Stanford

The Programs in Mathematical Sciences

Students seeking a degree in the Mathematical Sciences may specialize in Mathematics, Statistics, or Applied Mathematics, and receive a B.S. degree in these areas. Each specialization allows some flexibility in electives so that students can better adapt their degree plans to their educational goals.

Mathematics: For students interested in a career in mathematics and for students interested in continuing on to graduate work in mathematics, applied mathematics, math education, and related areas.
