

# UNDERGRADUATE CATALOG 2004–2006

## **The Alma Mater**

*“HAIL UTSA”*

From our hills of oak and cedar  
To the Alamo,  
Voices raised will echo  
As, in song, our praises flow.  
Hail Alma Mater!  
Through the years our loyalty will grow.  
The University of Texas at San Antonio.

## **The Mascot**

The roadrunner, a bird representative of the Texas Hill Country and the Southwest, was voted the UTSA mascot in 1977.

## **The School Colors**

Official colors of The University of Texas System are orange and white. Upon recommendation from the UTSA Student Representative Assembly, the Board of Regents approved the addition of navy to the orange and white for UTSA's school colors.

The provisions of this document do not constitute a contract, expressed or implied, between any applicant, student, or faculty member and The University of Texas at San Antonio or The University of Texas System. This document is a general information publication, and it does not contain all regulations that relate to students.

The University of Texas at San Antonio reserves the right to withdraw courses at any time and to change fees, tuition, rules, calendar, curriculum, degree programs, degree requirements, graduation procedures, and any other requirement affecting students. The policies, regulations, and procedures stated in this catalog are subject to change without prior notice, and changes become effective whenever the appropriate authorities so determine and may apply to both prospective students and those already enrolled. University policies are required to be consistent with policies adopted by the Board of Regents of The University of Texas System and are in compliance with state and federal laws.

**STUDENTS ARE HELD INDIVIDUALLY RESPONSIBLE FOR MEETING ALL REQUIREMENTS AS DETERMINED BY THE UNIVERSITY OF TEXAS AT SAN ANTONIO AND THE UNIVERSITY OF TEXAS SYSTEM. FAILURE TO READ AND COMPLY WITH POLICIES, REGULATIONS, AND PROCEDURES WILL NOT EXEMPT A STUDENT FROM WHATEVER PENALTIES HE OR SHE MAY INCUR.**

No person shall be excluded from participation in, denied the benefits of, or be subject to discrimination under any program or activity sponsored or conducted by The University of Texas System or any of its component institutions on any basis prohibited by applicable law, including, but not limited to, race, color, national origin, religion, gender, sexual orientation, age, veteran status, or disability.



**University publications:** The *UTSA Undergraduate Catalog* provides information about degrees offered by the undergraduate departments and lists the faculty. The chapter for each college describes the degree requirements for all majors offered by the college and lists the college's undergraduate courses. *UTSA Information* gives important information about academic policies and procedures that apply to all students, regardless of the catalog under which they are seeking their degree. It includes the official academic calendar, admission procedures, and residence requirements. The bulletin contains policies on grades and the grade point average, credit by examination, and scholastic probation and dismissal. This publication also gives historical and current information about the University's organization and physical facilities.

**Advising:** UTSA views sound academic advising as a significant responsibility in educating its students. Students are encouraged to seek academic advising prior to selecting a specific major to ensure that they complete degree requirements in an appropriate and timely manner. Prospective students can seek information about UTSA academic programs from UTSA's Visitor Center or the colleges in which the degree programs are located. Two centers provide academic advising for new and transfer freshmen (under 30 semester credit hours accepted by UTSA). Honors freshmen are advised by the Honors College, and the freshmen in Learning Communities are advised by the Learning Communities. With the exception of Honors freshmen who are advised by the Honors College, all freshmen who have not decided upon a major or have provisional status are advised through the Tomás Rivera Center for Student Success. All other freshmen who have decided upon a major are advised through The Colleges' Freshman Advising Center. Sophomore, junior and senior students with college majors are advised on the 1604 Campus in the college advising centers. On the UTSA Downtown Campus freshmen through seniors with declared majors should contact the Colleges' Downtown Advising Center.

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Photo – Chapter 1: Bachelor’s Degree Regulations

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# BACHELOR'S DEGREE REGULATIONS

## DEGREE REQUIREMENTS

### Overall Requirements

In order to receive a bachelor's degree from UTSA, a student must meet these minimum requirements:

1. Complete a minimum of 120 semester credit hours, at least 39 of which must be upper-division level.
2. Complete the University Core Curriculum requirements outlined in this chapter.
3. Complete the major and support work requirements and the free elective requirements for the desired degree. Free electives refer to any semester credit hours accepted by UTSA in transfer or awarded by UTSA that, for degree purposes, are not applied to Core Curriculum, major, minor, or support work requirements. The only restrictions placed upon courses used as free electives are as follows:
  - a. that a specific number of free elective credits must be at the upper-division level for some degree programs
  - b. that a maximum of 6 semester credit hours of physical activities courses can be applied to the free electives allowed for any UTSA degree program
  - c. that a maximum of 9 semester credit hours of military science can be applied to the free electives allowed for any UTSA degree program.
4. Meet all requirements for a degree as put forth by the Texas State Education Code, including the following:
  - a. All students must complete 6 semester credit hours of American or Texas history.
  - b. All students must complete 6 semester credit hours of government or political science, including the Constitution of the United States and constitutions of states, with special emphasis on Texas.
5. Meet the minimum UTSA residence requirements.
6. Achieve an overall 2.0 grade point average in all work attempted at UTSA and a 2.0 grade point average in all work included in the major.
7. Be in good academic standing at UTSA.
8. Apply formally for the degree before the deadline in the Office of the Registrar.

### Minimum UTSA Residence Requirements

The following minimum UTSA residence requirements are in accordance with requirements established for all institutions in The University of Texas System and are requirements for all bachelor's degrees:

1. A minimum of 25 percent of the total number of semester credit hours required for a bachelor's degree must be completed at UTSA before a degree can be conferred.
2. Twenty-four of the last 30 semester credit hours applied to the degree program must be completed in residence, with the exception that among University of Texas System components, a student may, with the approval of the appropriate dean, transfer additional coursework to the program at the degree-granting institution.
3. Of the minimum 39 upper-division semester credit hours required in all degree programs, 18 must be earned in UTSA courses.
4. At least 6 semester credit hours of upper-division coursework in the major must be completed at UTSA. Additional hours in the major sequence may be required under individual UTSA degree plans.

### Core Curriculum

The Core Curriculum is the part of each student's degree program in which he or she takes courses that meet requirements common to all UTSA undergraduates. Candidates for a bachelor's degree must achieve core objectives by completing the Core Curriculum.

### **Transfer of Core Curriculum Courses**

In accordance with the Texas Education Code, Chapter 61, Subchapter S, the UTSA Core Curriculum consists of 42 semester credit hours of coursework. If a student successfully completes the entire core curriculum at another public institution of higher education in Texas, that block of courses may be transferred to any other public institution of higher education in Texas and must be substituted for the receiving institution's core curriculum. Students will receive academic credit for each of the courses transferred and may not be required to take additional core curriculum courses at the receiving institution unless the Texas Higher Education Coordinating Board has approved a larger core curriculum at that institution.

Students who have completed a portion of the Core Curriculum at another Texas public institution of higher education may use that coursework to satisfy UTSA Core Curriculum requirements if:

- the course is designated as meeting a Core Curriculum requirement at the institution, and
- the course fits within a UTSA Core Curriculum Domain.

For transfer purposes, the designated TCCN (Texas Common Course Numbering System) courses will be accepted in transfer in lieu of these courses.

Students should consult with an academic advisor to determine the sequence of courses in the Core Curriculum and the major.

### **Resolution of Transfer Disputes for Core Curriculum Courses**

Public institutions of higher education must follow these procedures in the resolution of credit transfer disputes involving lower-division courses:

1. If an institution of higher education does not accept course credit earned by a student at another institution, the receiving institution will give written notice to the student and to the sending institution that the transfer of course credit is denied. At the request of the sending institution, the receiving institution will also provide written notice of the reasons it denied credit for a particular course or set of courses.
2. A student who receives notice may dispute the denial of credit by contacting a designated official at either the sending or the receiving institution.
3. The two institutions and the student shall attempt to resolve the transfer of the course credit in accordance with Texas Higher Education Coordinating Board rules and guidelines.
4. If the transfer dispute is not resolved to the satisfaction of the student or the sending institution within 45 days after the date the student received written notice of denial, the institution that denied the course credit for transfer will notify the Commissioner of Higher Education of its denial and the reasons for the denial.
5. The commissioner or the commissioner's designee will make the final determination about the transfer of course credit and give written notice of the determination to the involved student and institutions.

The Texas Higher Education Coordinating Board will collect data on the types of transfer disputes and the disposition of each case the commissioner considers.

If a receiving institution believes that a course which a student presents for transfer is not of acceptable quality, it should first contact the sending institution and try to resolve the problem. If the two institutions cannot come to a satisfactory resolution, the receiving institution may notify the Commissioner of Higher Education, who may investigate the course. If its quality is found to be unacceptable, the Texas Higher Education Coordinating Board may discontinue funding for the course.

### **Goals of the Core Curriculum**

The Core Curriculum reflects the educational goals of the University. It is designed to enable students to assess the perspectives and accomplishments of the past and to move to the future with an informed and flexible outlook. It promotes intellectual adaptability, ethical awareness, and transfer among diverse modes of thought.

An essential aim of the Core Curriculum is to cultivate the verbal, numerical, and visual skills necessary to analyze and synthesize information, construct arguments, and identify and solve problems. Another essential aim is to foster understanding of the intellectual and cultural pluralism of modern society as it is reflected in natural science and mathematics; behavioral, cultural, and social science; and literature and artistic expression. By encouraging interdisciplinary study, the Core Curriculum seeks to develop critical awareness of the continuities and discontinuities of human thought, history, and culture, thus helping prepare students to meet the demands of change.

The University reviews Core courses for their success in promoting the goals of the Core, and it encourages students to select Core courses that will best achieve these goals. Beyond the Core, each student must fulfill the requirements of a major.

### **Expectations for Entering Students**

The Core Curriculum is built on the assumption that the foundations of the general part of a student's education are laid in secondary school. Appropriate levels of proficiency in important subjects have been established as prerequisites for many of the courses in the Core, especially in the areas of rhetoric, mathematics, and language. Students who are unable to demonstrate proficiency may be required to take additional coursework before qualifying to take courses that meet Core Curriculum requirements. Entering students are also expected to possess proficiency in reading, knowledge of research and library tools, and a familiarity with basic computer skills. Students unable to demonstrate such proficiency and knowledge may be required to enroll in noncredit programs developed by UTSA to correct deficiencies in these areas.

### **Core Curriculum Requirements**

#### **Rhetoric** (6 semester credit hours)

To achieve the objectives of the rhetoric segment, students must demonstrate competent writing in English; critical proficiency in oral and graphic communication; competence in constructing valid arguments and criticizing arguments; and critical proficiency in using diverse theoretical perspectives to identify and formulate problems and draw conclusions.

Students must complete the following courses, for a total of 6 semester credit hours:

WRC	1013	Freshman Composition I
WRC	1023	Freshman Composition II

#### **Domain I: Mathematics and Science** (9 semester credit hours)

To achieve the objectives of Domain I, students must demonstrate knowledge of higher mathematics sufficient to understand the basis of mathematical reasoning, and knowledge of the methods, intellectual approaches, social significance, and history of the physical and natural sciences.

Students will normally complete the requirements for Domain I in 9 semester credit hours of coursework.

A. **Mathematics** (3 semester credit hours). Students must complete one course from the following:

MTC	1023	College Algebra with Applications
MTC	1033	Algebra with Calculus for Business
MTC	1043	Introduction to Mathematics
MTC	1073	Algebra for Scientists and Engineers
STA	1043	Introduction to Statistical Reasoning
STA	1053	Basic Statistics

or another mathematics or statistics course at an equivalent or more advanced level

- B. **Science** (6 semester credit hours). Students must complete two courses from the following lists. At least one course must be chosen from Level Two. Level Two science courses are more rigorous than those in Level One.

*Level One*

ANT	2033	Introduction to Physical Anthropology
ANT	2043	Introduction to Archaeology
BIO	1113	Biology I
CHE	1073	Basic Chemistry
ES	2013	Introduction to Environmental Systems
GEO	1013	The Third Planet

*Level Two*

AST	1013	Introduction to Astronomy
AST	1033	Exploration of the Solar System
BIO	1123	Biology II
BIO	1143	Biology III
CHE	1103	General Chemistry I
CHE	1303	General Chemistry II
GEO	1103	Introduction to Earth Systems
GEO	1123	Earth History
GRG	2613	Physical Geography
PHY	1013	Universes
PHY	1603	General Physics I
PHY	1623	General Physics II
PHY	1904	Technical Physics I
PHY	1924	Technical Physics II

**Domain II: Society and Culture** (18 semester credit hours)

To achieve the objectives of Domain II, students must demonstrate critical understanding of the political and economic dimensions of social life; knowledge of U.S. history sufficient for understanding current developments in American society within a historical context; substantial knowledge of social, racial, cultural, and gender diversity in the United States and Texas; and knowledge of the history, theory, methods, and intellectual approaches of the social and behavioral sciences, including similarities and differences with respect to one another and to other modes of understanding.

Students normally fulfill the requirements of Domain II in 18 semester credit hours of coursework.

- A. **United States History and Diversity** (6 semester credit hours). Each student must complete two of the following courses for a total of 6 semester credit hours. In meeting this requirement, students fulfill the statutory requirement in United States or Texas history.

HIS	1043	United States History: Pre-Columbus to Civil War Era
HIS	1053	United States History: Civil War Era to Present
HIS	2053	Texas History

- B. **Political Studies** (6 semester credit hours). By taking POL 1013 and POL 1213 or POL 1013 and POL 1133, students will fulfill the statutory requirement in United States and Texas government.

POL	1013	Introduction to American Politics
POL	1133	Texas Politics and Society
POL	1213	Topics in Texas and American Politics

**Note:** Students who have passed the Advanced Placement (AP) examination in American Government (with a score of 3 or better) will receive 3 semester credit hours of AP credit in American government, equivalent to POL 1013, Introduction to American Politics. Students may request that this examination be used to satisfy 3 hours of the UTSA six-hour Core Curriculum requirement in Political Studies, after they have completed POL 1133, Texas Politics and Society.

Students who pass the College Level Examination Program (CLEP) examination in American Government will receive 3 hours of credit in American government, equivalent to POL 1013, Introduction to American Politics. Students may request that this examination be used to satisfy 3 hours of the UTSA six-hour Core Curriculum requirement in Political Studies, after these students have completed POL 1133, Texas Politics and Society.

C. ***Social and Behavioral Sciences*** (3 semester credit hours). Students must complete one of the following courses:

ANT	1013	Introduction to Anthropology (formerly Human Adaptation)
BBL	2003	Language, Culture, and Society
BBL	2033	Multiculturalism in the Southwest
COR	1203	Freshman Seminar
CRJ	1113	The American Criminal Justice System
CRJ	2813	Introduction to Courts and the Legal System
GRG	1013	Fundamentals of Geography
GRG	2623	Human Geography
IDS	2113	Society and Social Issues
PSY	1013	Introduction to Psychology
PSY	1513	Knowledge and Learning
SOC	1013	Introduction to the Study of Society
SOC	2013	Social Problems

D. ***Economics*** (3 semester credit hours). Students must complete one of the following courses:

ECO	2003	Introduction to Political Economy
ECO	2013	Introductory Macroeconomics
ECO	2023	Introductory Microeconomics

**Domain III: Literature and the Arts** (6 semester credit hours)

To achieve the objectives of Domain III, students should demonstrate an understanding of the conceptual approaches and history of at least one of the arts, as a means of comprehending the aesthetic patterns that underlie human creativity; and an understanding of literary concepts and contemporary trends in interpretation, as a means of comprehending the metaphoric or analogical potential of human language.

A. ***Literature*** (3 semester credit hours). Students must complete one of the following courses:

CLA	2033	Introduction to Classical Literature
CLA	2323	Classical Mythology
CSH	1103	Literary Masterpieces of Western Culture I
CSH	1113	Literary Masterpieces of Western Culture II
CSH	2313	Introduction to Literary Studies
ENG	2013	Introduction to Literature
ENG	2213	Literary Criticism and Analysis
FRN	2333	French Literature in English Translation
GER	2333	German Literature in English Translation
IDS	2303	World Literature I: Through the Sixteenth Century
IDS	2313	World Literature II: Since the Sixteenth Century
ITL	2333	Italian Literature in English Translation
RUS	2333	Russian Literature in English Translation
SPN	2333	Hispanic Literature in English Translation

B. ***The Arts*** (3 semester credit hours). Students must complete one of the following courses:

AHC	1033	Masterworks in Art
AHC	1113	Survey of Art and Architecture from Prehistoric Times to 1350
AHC	1123	Survey of Art and Architecture in Europe and the New World from 1350 to 1750

AHC	1133	Survey of Modern Art
ARC	2413	History of Architecture: Antiquity through Medieval
ARC	2423	History of Architecture: Renaissance through Nineteenth Century
ART	1143	Art for Non-Majors
BBL	2023	Latino Cultural Expressions
MUS	2623	Fundamentals of Music for the Non-Music Major
MUS	2663	History and Styles of Jazz
MUS	2673	History and Styles of Rock
MUS	2683	Masterpieces of Music

**Domain IV: World Society and Issues** (3 semester credit hours)

To achieve the objectives of Domain IV, students should demonstrate intellectual flexibility, explore the bridges and barriers among various forms of understanding, and understand the nature and limits of different ways of knowing and different academic fields. Students should obtain a broad acquaintance with the cultures of major portions of the world (including non-Western cultures), knowledge of the contexts of international relations, and a knowledge of world geography.

Students will normally fulfill the requirements of Domain IV by completing 3 semester credit hours of coursework.

ANT	2053	Introduction to Cultural Anthropology
ANT	2063	Language, Thought, and Culture
ARC	1413	Architecture and Culture
ARC	1423	Architecture and Thought
ASL	2023	American Sign Language: Intermediate II
BIO	1033	Drugs and Society
COM	2343	Introduction to Mass Communication
CS	1023	Cultural Implications of the Information Society
CSH	1203	Introduction to Hispanic Cultures
CSH	1213	Topics in World Cultures
CSH	2113	The Foreign Film
FRN	2013	Intermediate French I
FRN	2023	Intermediate French II
GER	2013	Intermediate German I
GER	2023	Intermediate German II
GRG	1023	World Regional Geography
HIS	2533	Introduction to Latin American Civilization
HIS	2543	Introduction to Islamic Civilization
HIS	2553	Introduction to East Asian Civilization
HIS	2573	Introduction to African Civilization
HIS	2583	Introduction to South Asian Civilization
HUM	2093	World Religions
IDS	2203	World Civilization to the Fifteenth Century
IDS	2213	World Civilization since the Fifteenth Century
ITL	1014	Elementary Italian I
JPN	1014	Elementary Japanese I
LAT	2113	Intermediate Latin I
LAT	2123	Intermediate Latin II
MUS	2693	The Music of Latin America
PHI	2123	Moral Issues in Contemporary America
RUS	1014	Elementary Russian I
SPN	2003	Spanish for Elementary Education
SPN	2013	Intermediate Spanish I
SPN	2023	Intermediate Spanish II
SPN	2103	Oral and Written Expression

SPN	2513	Spanish for Special Purposes
SPN	2523	Hispanic Culture and Communication
WGS	2013	Introduction to Women and Gender Studies

## Catalog of Graduation

Students have seven years from their term of original registration to complete a degree program under the catalog in effect when they initially registered. A student may choose a subsequent catalog under which to complete graduation requirements, providing the student completed at least one course during a semester in which the selected catalog was in effect with a letter grade other than “W,” “NR,” or “F.” The student must complete all degree requirements under the subsequent catalog. Choosing a new catalog begins a new seven-year time limit. Students who graduate under one catalog and begin a second degree must begin the new degree under the catalog in effect at that time. A student must have an approved catalog at the time an application for graduation is filed.

## Multiple Degrees

### Pursuing One Degree Covering More Than One Major

A student completing one type of baccalaureate degree at UTSA (i.e., Bachelor of Arts, Bachelor of Science) may elect to concurrently complete other majors of that type. In such cases, only one bachelor's degree, which includes all majors, is awarded.

If a student wishes to pursue more than one major, all requirements for a single degree and major, plus the additional requirements for the other major(s), must be completed. It is unlikely that a student fulfilling more than one major can complete all requirements within the same number of semester credit hours required for a single major.

### Pursuing Two Degrees Concurrently

Students pursuing degrees of different types (i.e., a Bachelor of Arts and a Bachelor of Science) at the same time must satisfy the specific catalog requirements for each degree. Courses common to both degree programs (such as Core Curriculum requirements) may be counted toward the requirements for each degree. Additional courses required in one degree program may be used as free or directed electives in the other degree program.

### Pursuing Additional Degrees after Graduation

A student holding a baccalaureate degree from UTSA or another accredited institution may receive an additional bachelor's degree from UTSA as long as it is in a different major, regardless of the concentration. Such a student continues to be classified as an undergraduate and must:

1. complete a minimum of 30 semester credit hours of UTSA courses (of which at least 12 hours must be at the upper-division level in the major field) for each baccalaureate degree sought beyond the first
2. complete all requirements for the additional major(s), as set forth in this catalog
3. complete all requirements for the additional degree(s), including grade-point-average requirements, Core Curriculum requirements, support courses, elective courses, and upper-division courses, as set forth in this catalog
4. complete requirements under the catalog in effect at the time of beginning the second degree.

## MINORS

UTSA offers formal minors in a variety of disciplines and in several interdisciplinary fields. To receive a minor, students must complete at least 18 semester credit hours, including 6 hours at the upper-division level at UTSA, and must achieve a grade point average of at least 2.0 (on a 4.0 scale) on all work used to satisfy the requirements of a minor. Additional semester credit hours in the minor sequence may be required under individual UTSA degree plans. Students who declare minors must graduate under a catalog that includes minors and must meet any additional requirements listed in that catalog. All

requirements for the minor must be met at graduation; a minor cannot be added to a student's degree program once he or she graduates. Declaration of a minor is voluntary. To declare a minor, a student must file a Change of Major or Degree Information form through the College Advising Center of the desired minor. Students may not formally minor in more than two fields. Descriptions of minor requirements are included in chapters 2-9 of this catalog.

## TRANSFERRING COURSES

To prevent unnecessary loss of time and credit, prospective transfer students are encouraged to research as early as possible UTSA's admission policies and degree requirements in their areas of interest. Questions regarding the transferability of courses should be addressed to the Office of Admissions.

Students attending community colleges should also note the core curricula designed and adopted by the Texas Higher Education Coordinating Board to simplify the transfer of credit. Copies of these core curricula are available through most community college counselors.

### Evaluation Procedures

An official evaluation of transfer credit is completed for degree-seeking applicants at the time of admission. This evaluation shows the equivalency of courses completed elsewhere to courses at UTSA and indicates their applicability to the UTSA Core Curriculum. Students may access their evaluations on *ASAP*.

The Texas Higher Education Coordinating Board has approved core curricula in the following areas: arts and sciences (including mathematics and natural sciences), business administration, engineering, art, and criminal justice. Although the courses in these core curricula at various institutions may not be precisely equivalent to courses in the *UTSA Undergraduate Catalog*, students who have successfully completed the core curricula at other institutions are given full credit toward the appropriate degree at UTSA.

Students who do not receive transfer credit for specific courses should review the policies for credit by examination or contact the Office of Admissions. Grades earned at other institutions are not averaged with grades earned at UTSA to determine a student's grade point average.

### Resolution of Transfer of Credit Disputes

The Texas Higher Education Coordinating Board has established the following procedure for Texas public colleges and universities to follow in resolving transfer of credit disputes for lower-division courses. (The individual courses covered by this procedure are defined by the Coordinating Board's guides: "Transfer of Credit Policies and Curricula" and "Common Course Numbering System Guide.")

If a transfer course covered by the Coordinating Board policy is not accepted in transfer to UTSA, the student should contact the Office of Admissions for further explanation. The Office of Admissions, the student, and the sending institution will attempt to resolve the transfer of course credit in accordance with Coordinating Board rules.

If the transfer credit question is not resolved satisfactorily in the opinion of the student or the sending institution within 45 days of notification, the Office of Admissions states the reasons for the course denial to the Commissioner of Higher Education. The commissioner or a designee then provides a final written decision about the transfer course(s) in question to UTSA, the student, and the sending institution.

### Course Types and Acceptability

Undergraduate college credits completed at other U.S. institutions are evaluated for transfer to UTSA by the Office of Admissions on the basis of UTSA equivalency tables and according to the guidelines in this section. Generally, all work transferred must be from a college or university accredited by a regional accrediting association (see section below for information about credit from a nonaccredited institution).

Credits completed at institutions outside the United States must be evaluated on an individual basis, at the student's expense, by the foreign credentials evaluation service designated by the Office of Admissions. Transfer credit from foreign institutions is accepted by UTSA on the basis of this evaluation.

### **Generally Accepted**

***Courses from an Accredited College or University.*** Any academic course from an accredited college or university in which a passing grade has been earned is accepted for transfer credit if it meets all other criteria in this section. Only those hours that apply toward a specific baccalaureate degree program count toward minimum degree requirements.

The applicability of particular courses completed at other institutions toward specific course requirements for a bachelor's degree at UTSA depends upon equivalency of such courses offered by UTSA. Other academic courses are transferred as electives; credit for these courses counts toward minimum degree requirements only if they satisfy requirements of the student's degree program. Credit is not given for duplication or repetition of courses.

All course requirements at UTSA designated as upper-division may be transferred to UTSA only from senior-level institutions. For credit to be transferred as an upper-division course, the institution where credit was earned must be an accredited senior-level institution, and the course must be described in the institution's catalog as being upper-division.

If the equivalent of a *required* upper-division UTSA course is completed at an accredited institution as a lower-division course, the course need not be repeated, but another upper-division course, approved by the student's advisor, must be completed at UTSA in substitution.

***Credit by Examination.*** Credit by examination awarded at another accredited college or university transfers if the institution equates the results of the examination to a specific course, the course is transferable, and it appears on the institution's official transcript. Such credit is subject to all other transfer provisions, including the 66-semester-credit-hour transfer limitation from community colleges.

### **Accepted on a Limited Basis**

***Physical Activities Courses.*** Credits earned for physical activities courses can be transferred, within other UTSA transfer provisions, as free elective credit up to a maximum of 6 semester credit hours.

***Extension or Correspondence Courses.*** Credit earned by extension or correspondence through accredited colleges and universities for college-level academic courses is evaluated and accepted for transfer if the course is equivalent to UTSA courses and acceptable to the student's degree program, and if all other transfer provisions in this section are met. However, the maximum credit accepted through a combination of extension and correspondence courses is 30 semester credit hours (18-semester-credit-hour maximum by correspondence). No more than 6 semester credit hours of correspondence credit may be applied to the major.

Students currently enrolled at UTSA are not normally permitted to take correspondence or extension courses and transfer the credit to UTSA. Exceptions to this rule must be approved by the student's advisor and Dean, and such courses can be taken only in the event that the student is about to graduate and cannot obtain the course in residence.

***Community College Courses.*** Transfer credit for community college work may not exceed 66 semester credit hours. Students who have completed more than 66 acceptable semester credit hours may apply specific completed, transferable courses to specific course requirements to avoid having to repeat the courses. The semester credit hours for additional courses may not be applied toward the minimum semester credit hour requirements for a baccalaureate degree.

No upper-division credit may be earned at a community college.

***Military Service Training School Courses.*** As a Serviceman's Opportunity College (SOC) institution, UTSA awards credit on a limited basis for military coursework. In order for credit to be awarded, a student submits to UTSA an official Army/American Council on Education Registry Transcript System (AARTS) or an official Sailor/Marine/Ace Registry Transcript (SMART) listing all military coursework completed. The Office of Admissions evaluates the transcript and determines the transferability of coursework. Credit is awarded for military coursework that is deemed parallel to academic coursework.

Credit is not awarded for military experience based upon a Military Occupational Specialty (MOS) or for coursework that is solely technical in nature. Awarding of credit for military coursework does not guarantee its applicability to a degree at UTSA. A student who has taken military courses that do not transfer may challenge by examination those UTSA courses that appear equivalent to those already completed (see Challenging a UTSA Course in Chapter 5, General Academic Regulations, of the *UTSA Information* bulletin).

Credit for R.O.T.C. or military science, when awarded by another accredited college or university, is accepted by UTSA as free elective credit within the limitations of the student's degree program (for a maximum of 9 semester credit hours). See individual degree requirements and the R.O.T.C. program requirements in this catalog for limits on military science courses as free electives.

***Courses from an Institution Undergoing Accreditation or a Nonaccredited Institution.*** Credits earned in colleges and universities that are candidates for accreditation may be considered for transfer to UTSA on an individual basis and as applicable to the student's degree program. Any such credit accepted in transfer must be validated by 30 semester credit hours of coursework in residence at UTSA, with a grade point average of 2.0 or higher in that work.

UTSA reserves the right to refuse recognition of credit from a college or university that is a candidate for accreditation or from a nonaccredited institution.

#### **Not Accepted\***

***Developmental Education, Orientation, Life Experience, High School Level, Below-Algebra Mathematics, or Vocational-Technical Courses.*** Credits for developmental education, orientation, life experience, high school level, mathematics below the college algebra level, or vocational-technical courses are not acceptable for transfer credit. Where vocational-technical courses support a student's degree program, the student may make a written request to the Dean of the college to approve those courses as free elective credit. No transfer credit is granted for the General Educational Development (GED) test.

\*Exception – Vocational-Technical Credits earned as part of an Applied Associates of Sciences degree from a regionally accredited school are accepted only for the Bachelor of Applied Arts and Sciences Degree program.

## **ENROLLMENT IN GRADUATE COURSES**

### **For Undergraduate Credit**

An undergraduate student with a cumulative grade point average of 3.0 or higher may enroll in graduate courses and apply the credits earned to an undergraduate degree after obtaining approval from the student's advisor, the instructor, the Graduate Advisor of Record, and the Dean of the college in which the course is offered. Approval forms are available in the deans' offices and the Enrollment Services Center. All approvals must be obtained and the form filed by the time of registration. Students are encouraged to begin collecting the appropriate authorizations before the start of the registration period.

### **For Graduate Credit**

An undergraduate student with a cumulative grade point average of 3.0 or higher and lacking no more than 12 semester credit hours for graduation may enroll in a graduate course and earn graduate credit under the following conditions:

1. All hours required for the student's undergraduate degree must be completed in the term in which the graduate course is being taken.
2. In order to earn graduate credit, the student must graduate at the end of the semester in which the course(s) are taken; otherwise, the course(s) count as undergraduate credit.
3. If graduate credit is earned, the semester credit hours are not considered part of the baccalaureate degree program.
4. The student must obtain permission from the student's advisor and the Dean of the college in which the course(s) to be taken is offered. Approval forms are available in the deans' offices and the Enrollment Services Center. The form must be filed by the time of registration. Students are encouraged to begin seeking appropriate authorizations before the registration period.

An undergraduate student with a cumulative grade point average of 3.0 or higher and lacking no more than 30 semester credit hours for graduation may enroll in a graduate course and earn graduate credit under the following conditions:

1. The student is in good academic standing in an accelerated bachelor/master's degree program or is in good academic standing in the Honors College.
2. If graduate credit is earned, the semester credit hours are not considered part of the baccalaureate degree program.
3. The student must obtain permission from the student's advisor, the instructor, the Graduate Advisor of Record, and the Dean of the college in which the course(s) to be taken is offered. Approval forms are available in the deans' offices and the Enrollment Services Center. The form must be filed by the time of registration. Students are encouraged to begin seeking appropriate authorizations before the registration period.

## **GRADUATION**

### **Graduation Dates**

Degrees are conferred at the end of each long semester and at the end of the Summer Semester. Public commencement ceremonies are held at the end of the Fall and Spring Semesters. Students who are summer candidates for graduation may participate in commencement ceremonies of the prior Spring Semester or the following Fall Semester. Information on the procedures to be followed is available in the Office of the Registrar or the Registrar Web page at [www.utsa.edu/registrar](http://www.utsa.edu/registrar).

### **Applying for the Degree**

It is advisable that students apply for graduation as soon as possible after completing 90 semester credit hours or at least one semester prior to the graduation term.

A degree candidate waiting until the final semester of enrollment to apply for graduation must apply no later than October 1 for the Fall Semester, February 15 for the Spring Semester, or June 1 for the Summer Semester. The application for graduation of any student submitted after the established deadlines for that semester is processed for graduation for the following semester.

### **Degree Verification**

The College Advising Center in which the student is enrolled is responsible for auditing the student's degree plan to see that uniform requirements for each degree are met.

Graduation verification is a two-step process. The College Advising Center of the student's degree/major does a preliminary verification in order to clear the student to participate in a commencement ceremony. The student is responsible for completing all coursework and providing any adjustments to the College Advising Center by the end of the semester in which graduation is expected. A final verification occurs once all grades are posted for the graduation semester; the degree plan is reviewed again, and the college dean authorizes the certification for graduation. At the completion of this process, a diploma is printed and mailed to the eligible graduate within 45 days of commencement ceremonies.

Students who apply for the degree in a given semester but do not fulfill all requirements must submit a new application for graduation before the deadline for the semester in which they intend to graduate.

### **Graduation with University Honors**

See the current issue of *UTSA Information* for Graduation with University Honors criteria.

## PREPROFESSIONAL COURSES OF STUDY IN LAW, BUSINESS, OR MEDICINE

Students interested in legal, medical, dental, or nursing careers are encouraged to select undergraduate courses of study that comply with the specific program requirements of professional schools. Students planning to apply to graduate professional programs should consult UTSA faculty with experience in and knowledge of those professional fields.

As a general guide, minimum requirements are set forth below. However, satisfactory completion of these minimums does not guarantee admission to any professional school or program. Specific professional schools may have more specialized requirements, and the selection process for admission to professional schools is highly competitive.

**Preparation for Law School.** Students interested in preparing for and gaining admission to law school should contact the UTSA Institute for Law and Public Affairs or one of UTSA's pre-law faculty advisors, a list of which can be obtained by contacting the Office of Career Services. Most law schools do not recommend that pre-law students major in or concentrate on any particular area or discipline, although they do recommend that students acquire and develop certain skills as undergraduates, including strong analytical and writing skills. Most law schools encourage a broad, diverse, liberal undergraduate education as preferable to one that is narrowly specialized or vocational. Student programs of study that approach subjects on a theoretical level, rather than concentrating exclusively on practical aspects, are often considered good preparatory training for law school. It is also advisable, however, for students to take some law-oriented courses at the undergraduate level to assess for themselves, their aptitude for legal studies and potential for success in law school.

To discover what a particular law school recommends, students should review that school's catalog or Web site. Students will find a wealth of information on law school admissions and preparation at the Law School Admission Council's Web site: <http://lsac.org> and in materials maintained by the UTSA Institute for Law and Public Affairs. The Institute offers a minor in Legal Studies and an intensive Summer Law School Preparation academy that pre-law students may consider. Students who wish to discuss pre-law curriculum or their law school plans should contact the Institute or one of UTSA's pre-law faculty advisors.

**Preparation for Graduate Study in Business.** Nonbusiness majors who are interested in pursuing a Master of Business Administration (M.B.A.) degree are encouraged to use the electives in their degree program to complete the requirements for an outside field of business. Completion of this outside field may offer students the opportunity of gaining direct admission to many M.B.A. programs.

### **Health Professions Preparation Programs.**

The Health Professions Office and the College of Sciences Undergraduate Advising Center support students interested in the health professions by offering prehealth information about programs, application procedures, available professional testing, opportunities in health disciplines, and academic advising for course scheduling. UTSA offers courses that fulfill preacceptance course requirements for programs such as Nursing, Occupational Therapy, Physical Therapy, Physician Assistant, Pharmacy, Veterinary Medicine, Podiatry, Chiropractic, and Optometry, as well as premedical and pre dental school prerequisite courses. Students interested in professional programs and/or professional schools must apply; admission is competitive. Admission into UTSA does not guarantee admission into The University of Texas Health Science Center at San Antonio health professional programs.

**Medical and Dental Schools.** In general, medical and dental school admission committees do not state a preference about an undergraduate major field, leaving the student free to choose a degree program suited to the student's special abilities and interests. The vast majority of entrants have four years of college with a baccalaureate degree. A few students with outstanding records and a high degree of maturity are admitted to medical or dental school after completing 90 semester credit hours.

Admission requirements for The University of Texas Medical and Dental Schools are representative of admission requirements for most other American schools. These requirements typically include one year of college English; two years of biology as required for college science majors (one year must include laboratory work); one year of physics as required for college science majors, including laboratory; one year of general chemistry and one year of organic chemistry as required for college science majors, including the corresponding laboratories; and one-half year of college calculus (not required for dental school).

Each applicant is required to take the Medical College Admission Test or the Dental Admission Test. The preferred time to take these tests is at the spring test date before late spring application for admission.

Students are encouraged to consult with the chairperson of the Health Professions Advisory Committee (HPAC) through the Health Professions Office, Department of Biology or the College of Sciences Undergraduate Advising Center early in their college career for advisement and information concerning professional school requirements.

Applications for all University of Texas System Medical and Dental Schools are processed by the Medical and Dental Application Centers, 201 West Seventh Street, Suite 712, Austin, Texas 78701.

**Nursing School.** Admission requirements for The University of Texas Schools of Nursing (outlined in the UTHSCSA Bachelor of Science in Nursing degree plan on pages 402-405 in this catalog) are representative of admission requirements for most other American nursing schools. A minimum of 62 semester credit hours is required, including 6 semester credit hours of college English, 9 hours in behavioral sciences, 6 hours in history and government, 3 hours of college mathematics, 3 hours in statistics, 3 hours of humanities, 3 hours of visual and performing arts, and 23 hours in natural sciences which must include chemistry, anatomy, physiology, microbiology, and nutrition. Students interested in Nursing must seek information about these prerequisites on a regular basis because they are subject to change.

Additional information and advisement may be obtained from the chairperson of the Health Professions Advisory Committee through the Health Professions Office, Department of Biology, or the College of Sciences Undergraduate Advising Center.

**Physical Therapy and Occupational Therapy Programs.** Physical and occupational therapy programs are offered at other institutions and typically are master's level programs. UTSA offers prerequisite courses for these programs. General admission prerequisites for certain physical and occupational therapy schools are available in the Health Professions Office and the College of Sciences Undergraduate Advising Center.

#### *Early Admissions Programs.*

**3-4 Dental Early Admission Program (DEAP).** This is a joint program between The University of Texas at San Antonio and The University of Texas Health Science Center at San Antonio Dental School. This program offers students with an interest in dentistry the opportunity to receive early conditional acceptance to the dental school and to receive both a Bachelor of Science degree in Biology at UTSA and a Doctor of Dental Surgery degree at UTHSCSA within seven years. Applicants must have completed fewer than 30 semester credit hours of coursework to qualify for early admission. A list of the requirements for acceptance into the program and for its completion, as well as application forms and procedures, are available in the Health Professions Office or the College of Sciences Undergraduate Advising Center.

**Joint Admission Medical Program.** The Joint Admission Medical Program (JAMP) was created by the Texas Legislature as Senate Bill 940 to provide services to "highly qualified, economically disadvantaged students" who want to be a physician. If selected for JAMP, a student will receive numerous benefits throughout college and into medical school: a scholarship each semester of college (beginning sophomore year); a stipend each summer to attend three medical school enrichment (internship) programs; mentoring throughout college and into medical school; admission into one of Texas' medical schools (if all requirements are met); a stipend to attend a prematriculation program the summer before medical school, if required; a scholarship to attend medical school. Students must apply by December 31 in the freshman semester during which one must take 15 semester credit hours and earn a Grade Point Average of more than 3.25. Contact the UTSA JAMP Faculty Director through the Health Professions/JAMP Office and visit the JAMP Coordinator's Office web site at [www.utsystem.edu/JAMP](http://www.utsystem.edu/JAMP) for advisement and additional details.

**Facilitated Admissions For South Texas Scholars (FASTS) Program.** The University of Texas Medical School at San Antonio and the University of Texas at San Antonio have a partnership to select outstanding students from UTSA for a program for facilitated admission to the Medical School of the University of Texas Health Science Center in San Antonio (UTMSSA). This program provides early acceptance to UTMSSA based on academic/MCAT performance and offers an opportunity to return to South Texas for clinical training in the third and fourth year of medical school at the Regional Academic Health Center-associated clinical facilities. Contact the Health Professions Office at UTSA for guidance and additional information.

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Photo - Chapter 2: College of Business

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# COLLEGE OF BUSINESS

## Vision Statement

To be a globally respected community of scholars, dedicated to advancing the intellectual understanding of business and positioning San Antonio and South Texas as an international entrepreneurial center of commerce and technology.

## Mission Statement

The mission of the UTSA College of Business is life-long learning. To this end, an excellent business education is provided at the undergraduate, graduate, and executive levels. World-class research addressing relevant business issues is further promoted. Using the most current and effective teaching methods and technologies, the College of Business serves student-scholars from across the nation and around the world by introducing them to an environment of active learning and a culture of high achievement in a setting that is increasingly entrepreneurial and reliant on technology. For this mission, the College of Business relies on talented, diverse, and dedicated faculty, staff, and administrators working in concert with industry and community leaders, to provide significant contributions to the educational, economic, and cultural development of South Texas and beyond.

## General Information

All eligible undergraduate degrees in the College of Business are accredited by AACSB International and conform to its recommended guidelines.

Students in the College of Business may not enroll in specified 3000- and 4000-level courses in the College of Business before declaring a major. Students majoring in fields outside the College of Business may not take more than 27 semester credit hours in this college without approval of the Dean of the College of Business.

The College of Business is a member of the Consortium of Universities for International Business Studies. This consortium of AACSB-accredited colleges of business maintains undergraduate and graduate sites (Paderno and Asolo, respectively) in northeast Italy (approximately 25 miles north of Venice). The University of Kansas is the “umbrella” school for the Consortium and provides administrative and other support. Consortium students are provided an opportunity to further internationalize their business education through a semester of study abroad. As a member of the Consortium, UTSA College of Business undergraduate students who meet certain academic requirements are eligible to take business and economics courses offered by the Consortium and taught in English. Courses are also offered in Italian, Communication Studies, and Journalism. The Consortium provides on-campus dorms, meals, and other support for both undergraduate and graduate students. Organized factory visits and cultural study trips are also offered to students as part of the program.

The Leadership Challenge program gives undergraduate business students an opportunity to enhance their understanding of leadership and to develop personal leadership skills. Undergraduate business students are exposed to community and corporate leaders, corporate work environments, special projects, dialogues, and speakers. A limited number of students are selected into the Leadership Challenge based on their academic achievements, extra-curricular activities, community service, and leadership potential. For further information, contact the Center for Professional Excellence at 210-458-4778.

## College of Business Undergraduate Admission Policy for the Bachelor of Business Administration Degree

### Admissions Philosophy

The College of Business (COB) at UTSA seeks to use available resources in ways that best prepare as many qualified students as possible for careers in business. Admitting more students than resources allow would hinder the attempt to achieve this objective by not permitting the College to provide business majors the attention they deserve. Therefore, the undergraduate

degree admissions policy seeks to identify those students most likely to succeed in an undergraduate business education. A Business Scholars program helps promising students from disadvantaged backgrounds to prepare for academic and professional success. A business minor is available to all UTSA students who seek a strong foundation in business.

### Direct Admission Criteria

1. Applicants entering UTSA from high school and transfer students who have completed fewer than 30 hours of transferable college credit will be directly admitted to any College of Business major if they:

- meet all UTSA undergraduate admission requirements
- are ranked in the top 25 percent of his or her high school graduation class
- have successfully completed evaluation under the University's Success Initiative for unencumbered registration for courses.

2. Applicants who have completed 30 or more hours of transferable college credit will be directly admitted to any College of Business major if they:

- meet all UTSA undergraduate admission requirements
- have a cumulative grade point average of 2.5 or better for all college-level courses completed
- have successfully completed the following or equivalent courses:

COM	1053	Business and Professional Speech
IS	1403	Business Information Systems Fluency
MTC	1033	Algebra with Calculus for Business (MAT 1214, Calculus I, for majors in Actuarial Science).

### Applicants Who Do Not Meet Direct Admission Criteria

Applicants for admission to the College of Business who do not meet the criteria for direct admission stated above will be admitted to the College as prebusiness (PRB) students. Academic performance for admittance to the College of Business will be evaluated at the end of the semester in which at least 12 total semester credit hours of College of Business courses are completed at UTSA. The four courses listed below also must be completed.

To declare a business major, a prebusiness student must have:

- a grade point average of at least 2.0 for all UTSA coursework
- a grade point average of at least 2.20 for all UTSA College of Business coursework
- successfully completed the following or equivalent courses:

COM	1053	Business and Professional Speech
IS	1403	Business Information Systems Fluency
MS	1013	Quantitative Methods for Business and Economics (STA 3513 Probability and Statistics, for majors in Actuarial Science)
MTC	1033	Algebra with Calculus for Business (MAT 1214 Calculus I, for majors in Actuarial Science)

(NOTE: A specific B.B.A. major cannot be guaranteed and will depend on departmental resources. Changes of major must be made through the College of Business Undergraduate Advising Center and must be approved by the department chair.)

A student who does not meet the requirements to declare a B.B.A. major after completing 12 total semester credit hours of UTSA College of Business coursework will only be permitted to take additional business courses that are needed for a business minor and will not be considered a prebusiness student. The student must choose a major other than a business discipline or become undeclared in order to remain enrolled at UTSA.

## Business Honors

Bachelor of Business Administration (B.B.A.) majors who have been admitted to the University Honors College will complete an Honors section of five of the following Common Body of Knowledge courses: ACC 2013, ACC 2033, ECO 2013, ECO 2023, FIN 3013, IS 3003, MGT 3013, MKT 3013, MS 1013, MS 3033, and MGT 4893. Certain 5003 courses in the M.B.A. degree program may, subject to approval, substitute for Common Body of Knowledge courses. These undergraduate courses are offered once per year, and enrollment is targeted for B.B.A. degree program majors seeking University Honors. Contingent upon available space, students with outstanding academic records, including exceptional freshmen and transfer students, can apply for admission into these classes subject to approval by the faculty member, department chair, and Dean of the College of Business. Honors classes emphasize class discussion, presentations, and business research.

## Scholarships

The College of Business has many scholarships available to assist students in reaching their educational and career goals. The scholarship program within the College is managed generally within the College of Business Undergraduate Advising Center, located in the Business Building in room BB 2.02.04. Some scholarships are administered through the various departments within the College of Business; however, students should visit the Undergraduate Advising Center for information and application procedures for all scholarships within the College. Detailed information and eligibility requirements for specific scholarships administered through the College are available at the Advising Center's Web page at <http://business.utsa.edu/undergraduate/>. Other scholarship information is available through the UTSA Scholarship Office. Scholarship eligibility requirements differ, and the number and amounts of the scholarship awards vary. Students must complete the application process and submit required documentation by the deadlines stated on application materials. Students will be considered for all awards for which they meet the eligibility criteria. Award amounts are generally disbursed equally among the semesters covered by the scholarship as long as recipients continue to meet grade point, enrollment, and other scholarship criteria.

## Minors in the College of Business

The following College of Business minors are open to any UTSA major: Minor in Business Administration; Minor in Economics; Minor in Applied Statistics, Minor in Infrastructure Assurance, and Minor in Management Science. All other minors are restricted to College of Business majors.

## Enrollment in College of Business Courses

College of Business courses at the 3000- and 4000-level are restricted to College of Business majors or to students who require the courses for their particular degree, with the following exceptions: BLW 3013, FIN 3013, IS 3003, MGT 3003, MGT 3013, MKT 3013, and MS 3033. These courses are open to all students who meet course prerequisites. Enrollment in upper-division economics and statistics courses is open to all students who meet prerequisites. Enrollment in all other 3000- and 4000-level College of Business courses is contingent upon approval of the faculty member teaching the course and the department chair.

## Academic Standing of All Business Majors and Prebusiness Students

College of Business majors (B.B.A. degree, B.A. degree in economics, and B.S. degree in statistics, and B.A.A.S. degrees in accounting, construction management, finance, information systems, and tourism management) and prebusiness (PRB) students must maintain good academic standing in the College of Business. This requires that the student:

- meets all University regulations related to good academic standing
- maintains a minimum grade point average of 2.0 in UTSA College of Business courses.

Students who do not meet these requirements are placed on College academic probation. College of Business courses in which a grade of either "D" or "F" has been assigned may be repeated, in accordance with University policies, in an attempt to raise the College grade point average. Students on College academic probation have one subsequent long semester (Fall or Spring) to achieve good academic standing in the College.

A student who does not meet requirements for good academic standing in the College at the end of the one long semester will be classified as an undeclared (UND) student and will not be considered a part of the College of Business. Students who are

classified UND but who still meet University requirements for good academic standing, may pursue other majors in the University and may pursue College of Business minors for which they are eligible. They may also apply to the Dean of the College of Business for readmission to the College, presenting justification of an urgent and unusual nature that is not normally experienced by university students.

All College of Business majors must be in good academic standing in the College in order to receive a bachelor's degree offered by the College of Business. This policy does not pertain to students pursuing a minor in the College of Business.

### **The Texas Higher Education Coordinating Board Field of Study Curriculum for Business**

The Texas Higher Education Coordinating Board has mandated a field of study curriculum for Business, which consists of seven (7) courses with the following Texas Common Course Numbers (TCCN). UTSA courses satisfying this requirement are listed in brackets (see page 536 for a complete listing of TCCN courses).

2 Courses in Accounting:

TCCN: ACCT 2301 (ACC 2013 Principles of Accounting I)

TCCN: ACCT 2302 (ACC 2033 Principles of Accounting II)

1 Course in Computer Literacy:

TCCN: BCIS 1305 (IS 1403 Business Information Systems Fluency)

2 Courses in Economics:

TCCN: ECON 2301 (ECO 2013 Introductory Macroeconomics)

TCCN: ECON 2302 (ECO 2023 Introductory Microeconomics)

1 Course in Mathematics:

TCCN: MATH 1325 (MTC 1033 Algebra with Calculus for Business)

1 Course in Speech:

TCCN: SPCH 1321 (COM 1053 Business and Professional Speech)

### **Common Body of Knowledge**

All students seeking a B.B.A. degree in the College of Business must complete the following Common Body of Knowledge (CBK) courses in addition to the Core Curriculum:

<b>Course or Requirement</b>	<b>Semester Credit Hours</b>
ACC 2013 Principles of Accounting I	3
ACC 2033 Principles of Accounting II	3
BLW 3013 Business Law	3
COM 1053 Business and Professional Speech	3
ECO 2013 Introductory Macroeconomics (Domain II)	3
ECO 2023 Introductory Microeconomics	3
FIN 3013 Principles of Business Finance	3
GBA 2013 Social and Ethical Issues in Business	3
IS 1403 Business Information Systems Fluency	3
IS 3003 Principles of Information Systems for Management	3
MGT 3003 Business Communication and Professional Development	3
MGT 3013 Introduction to Organization Theory, Behavior, and Management	3
MGT 4893 Management Strategy and Policy (taken in semester of graduation)	3
MKT 3013 Principles of Marketing	3
MS 1013 Quantitative Methods for Business and Economics (Actuarial Science majors must take STA 3513 in lieu of MS 1013)	3
MS 3033 Management Science and Production Management	3
MTC 1033 Algebra with Calculus for Business (Domain I) (Actuarial Science majors must take MAT 1214 in lieu of MTC 1033)	3

Students completing degree course requirements with less than 120 semester credit hours will augment their program with electives taken outside the College of Business to reach that total.

## Bachelor of Business Administration Degree in General Business

The Bachelor of Business Administration degree in General Business is an interdisciplinary program within the College of Business. The minimum number of semester credit hours for this degree is 120.

All candidates seeking this degree must fulfill the Core Curriculum requirements, the Common Body of Knowledge requirements, and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Business Administration degree in General Business must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MTC 1033 Algebra with Calculus for Business <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) ECO 2013 Introductory Macroeconomics
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

### Common Body of Knowledge (CBK)

All students seeking a B.B.A. degree in the College of Business must complete the following Common Body of Knowledge (CBK) courses in addition to the Core Curriculum.

Course or Requirement			Semester Credit Hours
ACC	2013	Principles of Accounting I	3
ACC	2033	Principles of Accounting II	3
BLW	3013	Business Law	3
COM	1053	Business and Professional Speech	3
ECO	2013	Introductory Macroeconomics (Domain II)	3
ECO	2023	Introductory Microeconomics	3
FIN	3013	Principles of Business Finance	3
GBA	2013	Social and Ethical Issues in Business	3
IS	1403	Business Information Systems Fluency	3
IS	3003	Principles of Information Systems for Management	3
MGT	3003	Business Communication and Professional Development	3
MGT	3013	Introduction to Organization Theory, Behavior, and Management	3
MGT	4893	Management Strategy and Policy (taken in semester of graduation)	3
MKT	3013	Principles of Marketing	3
MS	1013	Quantitative Methods for Business and Economics (Actuarial Science majors must take STA 3513 in lieu of MS 1013)	3
MS	3033	Management Science and Production Management	3
MTC	1033	Algebra with Calculus for Business (Domain I) (Actuarial Science majors must take MAT 1214 in lieu of MTC 1033)	3

In addition to the Core Curriculum requirements and requirements of the College of Business Common Body of Knowledge (CBK), all candidates for the degree must complete the following degree requirements.

### Degree Requirements

A. 24 semester credit hours of required courses:

BLW	3023	Business Organizations and Commercial Law
ECO	3033	Economics of Managerial Decisions
FIN	3313	Money and Banking
MGT	3023	Understanding People and Organizations
MKT	4013	Marketing Management

9 additional semester credit hours of upper-division courses in the College of Business, of which no more than 6 semester credit hours can be in any one discipline in the college, and at least 3 semester credit hours must be at the 4000 level.

B. ENG 2413 Technical Writing

C. 6 semester credit hours of electives outside the College of Business

## Minor in Business Administration

The Minor in Business Administration is open to all majors (including B.A. in Economics) in the University. Students seeking a B.B.A. degree are not eligible to pursue a Minor in Business Administration. Students pursuing this minor should elect to take ECO 2013 Introductory Microeconomics (Domain IID) as part of their Core Curriculum requirements. In addition, the following 21 semester credit hours are required in the College of Business:

ACC	2013	Principles of Accounting I
BLW	3013	Business Law
ECO	2023	Introductory Microeconomics
FIN	3003	Survey of Finance
IS	1403	Business Information Systems Fluency
MGT	3013	Introduction to Organization Theory, Behavior, and Management
MKT	3013	Principles of Marketing

To declare a Minor in Business Administration, obtain advice, and seek approval of substitutions for course requirements, students must consult the College of Business Undergraduate Advising Center.

### COURSE DESCRIPTIONS GENERAL BUSINESS ADMINISTRATION (GBA)

#### **2013 Social and Ethical Issues in Business**

(3-0) 3 hours credit.

A study of the social and ethical responsibilities of business organizations and of the people who work in those organizations.

#### **4011-3 Seminar in Leadership**

(1-0, 2-0, 3-0) 1, 2, or 3 hours credit. Prerequisite: MGT 3003.

A seminar that engages students in a discussion of leadership and responsibility in business and other organizations.

## DEPARTMENT OF ACCOUNTING

### Mission Statement

The mission of the Department of Accounting is to offer graduate and undergraduate accounting programs of high quality, which meet the needs of the students preparing for professional careers in accounting. This mission includes providing a broad-based education as well as education in current business and accounting topics. The department is responsive to the needs of employers and other constituents of its programs. The department is also alert to the current issues in the local, regional, and national environment, and plans and implements changes in the educational process to respond to those issues when needed. The faculty of the accounting programs assist in accomplishing this mission through a planned integration of their teaching, intellectual, and service contribution.

### DEPARTMENT HONORS

The Department of Accounting offers the opportunity for certain of its outstanding students to achieve the designation of Honors in Major and provides the opportunity for advanced study under close faculty supervision.

Selection for honors designation is based on the student's academic performance and recommendation by the Department Undergraduate Program Committee (UPC) in consultation with the faculty of the student's major discipline. To be eligible for the designation, students must have a minimum overall grade point average of 3.0 at UTSA and a minimum grade point average of 3.5 in their major. To enroll in honors thesis courses and to graduate with the honors designation, these minimum grade point averages must be maintained. Students applying for Honors in Major are expected to enroll in the appropriate honors thesis course during the final two semesters. The completed thesis must be approved by the supervising faculty sponsor from the student's discipline and the UPC. Students interested in this program should contact the UPC through the Department of Accounting office for additional information. Department honors can be attained independent of or in addition to University Honors.

### Bachelor of Business Administration Degree in Accounting

The minimum number of semester credit hours for the Bachelor of Business Administration degree in Accounting is 120.

All candidates seeking this degree must fulfill the Core Curriculum requirements, the Common Body of Knowledge requirements, and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Business Administration degree in Accounting must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<i>Mathematics</i> (3 semester credit hours) MTC 1033 Algebra with Calculus for Business <i>Science</i> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Economics</i></b> (3 semester credit hours) ECO 2013 Introductory Macroeconomics</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Common Body of Knowledge (CBK)

All students seeking a B.B.A. degree in the College of Business must complete the following Common Body of Knowledge (CBK) courses in addition to the Core Curriculum.

<b>Course or Requirement</b>			<b>Semester Credit Hours</b>
ACC	2013	Principles of Accounting I	3
ACC	2033	Principles of Accounting II	3
BLW	3013	Business Law	3
COM	1053	Business and Professional Speech	3
ECO	2013	Introductory Macroeconomics (Domain II)	3
ECO	2023	Introductory Microeconomics	3
FIN	3013	Principles of Business Finance	3
GBA	2013	Social and Ethical Issues in Business	3
IS	1403	Business Information Systems Fluency	3
IS	3003	Principles of Information Systems for Management	3
MGT	3003	Business Communication and Professional Development	3
MGT	3013	Introduction to Organization Theory, Behavior, and Management	3
MGT	4893	Management Strategy and Policy (taken in semester of graduation)	3
MKT	3013	Principles of Marketing	3
MS	1013	Quantitative Methods for Business and Economics (Actuarial Science majors must take STA 3513 in lieu of MS 1013)	3
MS	3033	Management Science and Production Management	3
MTC	1033	Algebra with Calculus for Business (Domain I) (Actuarial Science majors must take MAT 1214 in lieu of MTC 1033)	3

In addition to the Core Curriculum requirements and requirements from the College of Business Common Body of Knowledge (CBK), all candidates for the degree must complete the following degree requirements.

## Degree Requirements

A. 24 semester credit hours of accounting courses in the major:

ACC	3023	Intermediate Accounting I
ACC	3033	Intermediate Accounting II
ACC	3043	Federal Income Taxation I
ACC	3113	Accounting Information Systems I
ACC	3123	Cost Analysis
ACC	4013	Principles of Auditing

6 semester credit hours of upper-division courses in accounting of which no more than 3 semester credit hours may be satisfied by completing ACC 4933, Accounting Internship.

B. 9 semester credit hours of electives outside the College of Business

Notes for students who intend to take the Certified Public Accountant (CPA) examination:

1. Because of the topical coverage of the CPA examination, BLW 3023 Business Organizations and Commercial Law is recommended as a non-accounting elective for students who anticipate taking the CPA examination.
2. The educational requirements for candidates applying for the CPA examination in Texas are regulated by the Texas State Board of Public Accountancy. Students with questions about requirements or eligibility should contact the Texas State Board of Public Accountancy, 333 Guadalupe, Tower III, Suite 900, Austin, TX 78701 or 512/305-7851 or visit their Web site at <http://www.tsbpa.state.tx.us>.
3. The number of accounting hours required to earn a B.B.A. in Accounting is inadequate to sit for the CPA Examination under current Texas state law. Please refer to the Professional Accounting Program information following the description of ACC 4993.

## COURSE DESCRIPTIONS ACCOUNTING (ACC)

### **2003 Foundations of Accounting**

(3-0) 3 hours credit.

A study of accounting as the language of business. The focus is on accounting as a tool for communicating financial information for planning, control, and decision making. This course is designed for nonbusiness majors and cannot be applied toward a degree in the College of Business.

### **2013 Principles of Accounting I**

(3-1) 3 hours credit.

An introduction to business external financial reporting designed to create an awareness of the accounting concepts and principles used in preparing the three basic financial statements: the income statement, balance sheet, and statement of cash flow. The course is designed for all business students, whether future users or preparers of accounting information. One hour laboratory included. [TCCN: ACCT 2301.]

### **2033 Principles of Accounting II**

(3-0) 3 hours credit. Prerequisite: ACC 2013.

An introduction to the determination, development, and uses of internal accounting information needed by business management to satisfy customers while controlling and containing costs. The course is designed for all business students, whether future users or preparers of accounting information. [TCCN: ACCT 2302.]

### **3023 Intermediate Accounting I**

(3-0) 3 hours credit. Prerequisite: ACC 2033.

An in-depth study of promulgated accounting theory and concepts with an emphasis on corporate financial accounting and reporting.

- 3033 Intermediate Accounting II**  
 (3-0) 3 hours credit. Prerequisites: A grade of “C” or better in ACC 3023 and declared accounting major or department approval.  
 A continuation of the in-depth study of promulgated accounting theory and concepts with an emphasis on corporate financial accounting and reporting.
- 3043 Federal Income Taxation I**  
 (3-0) 3 hours credit. Prerequisites: A grade of “C” or better in ACC 3023 and declared accounting major or department approval.  
 Fundamentals of federal income tax accounting for individuals. Topics include income and exclusions, statutory deductions, depreciation, sale of business assets, capital gains and losses, and computation of tax.
- 3113 Accounting Information Systems I**  
 (3-0) 3 hours credit. Prerequisites: ACC 2033 and IS 3003.  
 A study of database management systems as they relate to the accounting function. Topics include database design and applications that focus on accounting, including the entity-relationship model, data modeling, object-oriented design, and database management.
- 3123 Cost Analysis**  
 (3-0) 3 hours credit. Prerequisite: ACC 2033.  
 A study of internal accounting information generation with an emphasis on cost measurement and control. Topics include cost allocation, unit cost determination, variance analysis, and related quantitative methods.
- 4013 Principles of Auditing**  
 (3-0) 3 hours credit. Prerequisites: MGT 3003, a grade of “C” or better in both ACC 3023 and ACC 3113, and declared accounting major or department approval.  
 A study of the topic of auditing oriented toward primarily the financial auditing standpoint. The course focuses on the concepts and procedures of auditing applied to the audit of financial statements. Topics also covered include professional ethics, internal and operational auditing, accounting and review services, and the public accounting profession.
- 4053 Accounting for Governmental and Not-for-Profit Organizations**  
 (3-0) 3 hours credit. Prerequisites: MGT 3003, a grade of “C” or better in ACC 3023, and declared accounting major or department approval.  
 A study of accounting, budgeting, fiscal procedures, and financial records of governmental agencies and private not-for-profit organizations.
- 4073 Intermediate Accounting III**  
 (3-0) 3 hours credit. Prerequisites: MGT 3003, a grade of “C” or better in ACC 3033, and declared accounting major or department approval.  
 A study of specialized financial reporting topics, including the application of professional standards and case-study analyses.
- 4153 Federal Income Taxation II**  
 (3-0) 3 hours credit. Prerequisites: MGT 3003, a grade of “C” or better in ACC 3043, and declared accounting major or department approval.  
 A study of the taxation of flow through organizations and partnerships. Topics include the formation, income taxation, and liquidation of flow through organizations and partnerships.
- 4911-3 Independent Study**  
 1 to 3 hours credit. Prerequisites: MGT 3003 and permission in writing from the instructor, the Department Chair, and the Dean of the College of Business. See the College of Business Undergraduate Advising Center for the required forms.  
 Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor’s degree.

**4933 Internship in Accounting**

3 hours credit. Prerequisites: ACC 3023, MGT 3003, an overall 2.5 grade point average, and permission in writing from the instructor, the Department Chair, and the Dean of the College of Business. See the College of Business Undergraduate Advising Center for required forms.

The opportunity to gain knowledge through experiential activities in professional life. Joint cooperation with business and governmental institutions in structuring and monitoring work experience aimed at supplementing the classroom learning process. ACC 4933 may be completed only once for undergraduate degree credit.

**4953 Special Studies in Accounting**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and consent of instructor

An organized course offering the opportunity for specialized study of accounting topics not normally or not often available as part of the regular course offerings. ACC 4953 may be completed only once for degree credit.

**4993 Honors Thesis**

3 hours credit. Prerequisite: MGT 3003. Enrollment limited to students applying for Honors in Accounting (see page 30).

Supervised research and preparation of an honors thesis. May be repeated once for credit with advisor's approval. No more than 3 semester credit hours can apply toward accounting major requirements.

**Five-Year (150-Hour) Professional Accounting Program**

The Five-Year Professional Accounting Program is a 3/2 degree program. Undergraduate accounting majors should apply for admission to the program during the second semester of their junior year. Once admitted, these students will be allowed to take graduate courses while, technically, undergraduate students. In this program the degree plan for the Bachelor of Business Administration (B.B.A.) in Accounting is combined with that of the Master of Science in Accounting (M.S.A.). The advantage of the program is that it allows accounting majors to spread the graduate courses required for the M.S.A. degree over the fourth and fifth years of the 150-hour program. Upon successful completion of the 150-hour program, students will be simultaneously awarded the B.B.A. in Accounting and the M.S. in Accounting degrees.

**Admission Criteria:** To be admitted to the Five-Year (150-Hour) Professional Accounting Program, students must meet the following criteria:

1. be a declared major in accounting
2. have an overall grade point average (GPA) of 3.0, a GPA of 3.0 in accounting courses taken, and an acceptable score on the Graduate Management Admission Test (GMAT), and
3. have completed a minimum of 6 hours of upper-level undergraduate accounting courses including ACC 3023, Intermediate Accounting I.

In addition, the student must have completed at least 12 hours of upper-level undergraduate accounting courses by the end of the first semester following admission into the program.

## DEPARTMENT OF ECONOMICS

The Department of Economics offers both a Bachelor of Arts degree and a Bachelor of Business Administration degree in Economics. Economics is a highly versatile major that assists students in pursuing a variety of careers, including positions in business, the public sector, the legal field, and politics, where a knowledge of economics is a fundamental asset. The department also offers a minor in economics that is open to all majors in the University.

### DEPARTMENT HONORS

The Department of Economics offers the opportunity for certain of its outstanding students to achieve the designation of Honors in Major and provides the opportunity for advanced study under close faculty supervision.

Selection for honors designation is based on the student's academic performance and recommendation by the Department Undergraduate Program Committee (UPC) in consultation with the faculty of the student's major discipline. To be eligible for the designation, students must have a minimum overall grade point average of 3.0 at UTSA and a minimum grade point average of 3.5 in their major at UTSA. To enroll in honors thesis courses and to graduate with the honors designation, these minimum grade point averages must be maintained. Students applying for Honors in Major are expected to enroll in the appropriate honors thesis course during their final two semesters. The completed thesis must be approved by the supervising faculty sponsor from the student's discipline and the UPC. Students interested in this program should contact the Department of Economics office for additional information. Department honors can be attained independent of, or in addition to, University Honors.

### Bachelor of Business Administration Degree in Economics

The minimum semester credit hours for the Bachelor of Business Administration degree in Economics is 120.

All candidates seeking this degree must fulfill the Core Curriculum requirements, the Common Body of Knowledge (CBK) requirements, and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Business Administration degree in Economics must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<i>Mathematics</i> (3 semester credit hours) MTC 1033 Algebra with Calculus for Business <i>Science</i> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Economics</i></b> (3 semester credit hours) ECO 2013 Introductory Macroeconomics</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Common Body of Knowledge (CBK)

All students seeking a B.B.A. degree in the College of Business must complete the following Common Body of Knowledge (CBK) courses in addition to the Core Curriculum.

Course or Requirement			Semester Credit Hours
ACC	2013	Principles of Accounting I	3
ACC	2033	Principles of Accounting II	3
BLW	3013	Business Law	3
COM	1053	Business and Professional Speech	3
ECO	2013	Introductory Macroeconomics (Domain II)	3
ECO	2023	Introductory Microeconomics	3
FIN	3013	Principles of Business Finance	3
GBA	2013	Social and Ethical Issues in Business	3
IS	1403	Business Information Systems Fluency	3
IS	3003	Principles of Information Systems for Management	3
MGT	3003	Business Communication and Professional Development	3
MGT	3013	Introduction to Organization Theory, Behavior, and Management	3
MGT	4893	Management Strategy and Policy (taken in semester of graduation)	3
MKT	3013	Principles of Marketing	3
MS	1013	Quantitative Methods for Business and Economics (Actuarial Science majors must take STA 3513 in lieu of MS 1013)	3
MS	3033	Management Science and Production Management	3
MTC	1033	Algebra with Calculus for Business (Domain I) (Actuarial Science majors must take MAT 1214 in lieu of MTC 1033)	3

In addition to the Core Curriculum requirements and requirements from the College of Business Common Body of Knowledge (CBK), all candidates for the degree must complete the following degree requirements. Thirty-nine of the total hours required for the degree must be at the upper-division level.

## Degree Requirements

A. 21 upper-division semester credit hours in the major:

ECO	3033	Economics of Managerial Decisions
ECO	3053	Aggregate Economic Analysis

15 additional semester credit hours of upper-division electives in economics. Additional information on degree plans under the areas of specialization in the Bachelor of Business Administration is available in the College of Business Undergraduate Advising Center and the Department of Economics.

B. 3 semester credit hours of upper-division noneconomics electives within the College of Business.

C. 9 semester credit hours of electives selected from outside the College of Business based upon the degree plan under the chosen area of specialization.

## Bachelor of Arts Degree in Economics

The minimum semester credit hours for the Bachelor of Arts degree in Economics is 120.

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Economics must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MTC 1033 Algebra with Calculus for Business <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) ECO 2013 Introductory Macroeconomics

<b>Domain III: Literature and the Arts</b>	<p><i>Literature</i> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><i>The Arts</i> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

In addition to the Core Curriculum requirements, all candidates for the degree must complete the following degree requirements. Thirty-nine of the total hours required for the degree must be at the upper-division level.

### Degree Requirements

A. 39 semester credit hours of required courses in the major:

COM	1053	Business and Professional Speech
ECO	2013	Introductory Macroeconomics (Domain II)
ECO	2023	Introductory Microeconomics
ECO	3013	Theory of Price
ECO	3053	Aggregate Economic Analysis
MS	1013	Quantitative Methods for Business and Economics

21 semester credit hours in upper-division economics courses. Additional information on degree plans under the three areas of specialization in the Bachelor of Arts Degree in Economics is available in the College of Business Undergraduate Advising Center and the Department of Economics.

B. 12 semester credit hours of social science electives selected from American studies (AMS), anthropology (ANT), bicultural-bilingual studies (BBL), criminal justice (CRJ), geography (GRG), history (HIS), political science (POL), psychology (PSY), and sociology (SOC).

C. 30 additional credit hours based upon the degree plan under the chosen area of specialization.

### Minor in Economics

The Minor in Economics is open to all majors in the University. All students pursuing the Minor in Economics must complete 18 semester credit hours.

A. 6 semester credit hours of required courses:

ECO	2013	Introductory Macroeconomics
ECO	2023	Introductory Microeconomics

B. 12 additional semester credit hours of upper-division economics courses.

To declare a Minor in Economics, obtain advice, and seek approval of substitutions for course requirements, students must consult the College of Business Undergraduate Advising Center.

## COURSE DESCRIPTIONS ECONOMICS (ECO)

- 2003 Introduction to Political Economy**  
(3-0) 3 hours credit.  
A nontechnical introduction to economic concepts such as scarcity, costs and benefits, supply and demand, trade, employment, and growth, with applications to current economic issues and policies. May not be counted toward a major in economics, but may be counted as a free elective for College of Business students. [TCCN: ECON 1301.]
- 2013 Introductory Macroeconomics**  
(3-0) 3 hours credit. Prerequisite: Placement into a college-level mathematics course.  
Economic analysis at the national level, including the determination of aggregate income and employment, operation of the domestic and international monetary systems, short-term income fluctuations, and long-term economic growth. [TCCN: ECON 2301.]
- 2023 Introductory Microeconomics**  
(3-0) 3 hours credit. Prerequisite: Placement into a college-level mathematics course.  
An introduction to the economic theory of decision making by consumers and business firms; an analysis of the domestic and international market systems and their roles in allocating goods and services; and problems of market failure. [TCCN: ECON 2302.]
- 3013 Theory of Price**  
(3-0) 3 hours credit. Prerequisites: ECO 2013, ECO 2023, and MTC 1033, or their equivalents.  
Operations of individual markets, market structure, theory of the firm, theory of production, demand theory, general equilibrium, and welfare economics.
- 3033 Economics of Managerial Decisions**  
(3-0) 3 hours credit. Prerequisites: ECO 2013, ECO 2023, and MTC 1033, or their equivalents.  
Managerial economic decisions in firms and related entities. Topics include demand analysis, least-cost production, profit strategy, the influence of various market structures on the firm, advanced issues in pricing, and the impact of the international sector.
- 3053 Aggregate Economic Analysis**  
(3-0) 3 hours credit. Prerequisites: ECO 2013 and ECO 2023, or their equivalents.  
Analysis of the measurement, determination, and control of aggregate economic activity; the monetary system in relation to income and employment; short-term income fluctuations; and long-term growth.
- 3113 Introduction to Mathematical Economics**  
(3-0) 3 hours credit. Prerequisites: Completion of or concurrent enrollment in ECO 3013, ECO 3033, ECO 3053, or the equivalent; MTC 1033 or the equivalent; or consent of instructor.  
Systematic approach to economic analysis using basic mathematical tools; treatment of optimizing behavior with applications to consumer and business firms; emphasis on understanding and application of analytical techniques.
- 3123 Forecasting Techniques in Business and Economics**  
(3-0) 3 hours credit. Prerequisites: IS 3003, MS 1013, and MTC 1033, or their equivalents.  
Measurement in economics and business that strives to mix the development of technique with its application to economic analysis. Major topics include the nature of economic and business data, specific forms of modeling and forecasting, and the use of microcomputer programs in econometric modeling and forecasting.
- 3163 Evolution of Economic Thought**  
(3-0) 3 hours credit. Prerequisite: One of the following: ECO 2003, ECO 2013, ECO 2023, the equivalent, or consent of instructor.  
Development of economic theories, models, and schools of thought from the birth of market economies to the present, with an emphasis on the historical, institutional, and social forces shaping economic thinking and public policy.

**3183 Economic History of the United States**

(3-0) 3 hours credit. Prerequisite: One of the following: ECO 2003, ECO 2013, ECO 2023, or the equivalent.

The growth and development of the American economy from colonial times to the present; emphasis on applying a variety of economic concepts to a topical study of the economic forces that shaped the country's history.

**3193 The International Economy**

(3-0) 3 hours credit. Prerequisite: One of the following: ECO 2003, ECO 2013, ECO 2023, the equivalent, or consent of instructor.

Principles of international trade; significance of geographic, economic, social, and political influences; current problems in international trade and payments; tariffs and commercial policy; and the role of international organizations.

**3213 Government Regulation of Industry**

(3-0) 3 hours credit. Prerequisite: One of the following: ECO 2003, ECO 2023, the equivalent, or consent of instructor.

Theory and practice of governmental regulation, deregulation, and privatization; economic, legal, and ethical concerns regarding private-sector output; and pricing as influenced by public policy and marketing structure.

**3253 Economics of Public and Social Issues**

(3-0) 3 hours credit. Prerequisite: One of the following: ECO 2003, ECO 2013, ECO 2023, the equivalent, or consent of instructor.

A seminar on applying economic reasoning and models to a wide variety of public, ethical, and social issues. Uses advanced techniques in political economy.

**3263 Industrial Organization**

(3-0) 3 hours credit. Prerequisite: One of the following: ECO 2003, ECO 2023, or the equivalent.

Theory and empirical evidence relating to the structure of American industry and its effect on the firm's conduct and performance, government policy, and regulation.

**3273 Public Sector Economics**

(3-0) 3 hours credit. Prerequisite: One of the following: ECO 2003, ECO 2023, or the equivalent.

Role of government in the marketplace; cost-benefit analysis; spending and regulatory alternatives; efficiency and equity analysis of taxes; incentives within government; public policy issues.

**3283 Labor Economics**

(3-0) 3 hours credit. Prerequisite: ECO 2003, ECO 2013, ECO 2023, the equivalent, or consent of instructor.

Theories of wages and employment determination. U.S. labor history, comparative labor movements, and contemporary labor problems.

**4273 Environmental and Resource Economics**

(3-0) 3 hours credit. Prerequisite: ECO 2003, ECO 2023, or the equivalent.

Economic principles applied to natural resource and environmental problems; relationship of market and nonmarket forces to environmental quality and demands for natural resources; and development of tools for policy analysis.

**4303 Economic Problems of Developing Countries**

(3-0) 3 hours credit. Prerequisite: One of the following: ECO 2003, ECO 2013, the equivalent, or consent of instructor.

Specific economic problems of developing countries and national groupings; basic approaches to economic development; major proposals for accelerating development; role of planning; and trade, aid, and economic integration.

**4913 Independent Study**

3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Department Chair, and the Dean of the College of Business.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4933 Internship in Economics**

3 hours credit. Prerequisites: 12 semester credit hours of upper-division economics, an overall 2.5 grade point average, and permission in writing from the instructor, the Department Chair, and the Dean of the College of Business. See the College of Business Undergraduate Advising Center for required forms.

This opportunity for work experience in research or applied economics may be undertaken either in private business or a public agency; opportunities are developed in consultation with the faculty advisor and Department Chair and require approval of both. This course will not count as a required economics course. Internships may be repeated (a total of 6 semester credit hours) provided the internships are with different organizations.

**4953 Special Studies in Economics**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4993 Honors Thesis**

3 hours credit. Prerequisite: Enrollment limited to students applying for Honors in Economics (see page 35).

Supervised research and preparation of an honors thesis. May be repeated once for credit with advisor's approval.

## DEPARTMENT OF FINANCE

The Department of Finance offers a Bachelor of Business Administration degree in Finance and a Bachelor of Business Administration degree in Construction Management. A major in finance gives students the opportunity to learn the basic financial theories and applications needed in managerial financial decision-making. Specializations in finance include corporate finance, investments, banking, insurance, real estate, and financial institutions and markets. The degree in construction management is offered by the department with support from the architecture program. This major is designed for students interested in managing businesses associated with real estate and the planning, financing, development, and construction of building projects. The department also offers a minor in finance that is available only to students pursuing a Bachelor of Business Administration (B.B.A.) degree.

### DEPARTMENT HONORS

The Department of Finance offers the opportunity for certain of its outstanding students to achieve the designation of Honors in Major and provides the opportunity for advanced study under close faculty supervision.

Selection for honors designation is based on the student's academic performance and recommendation by the Department Undergraduate Program Committee (UPC) in consultation with the faculty of the student's major discipline. To be eligible for the designation, students must have a minimum overall grade point average of 3.0 at UTSA and a minimum grade point average of 3.5 in their major at UTSA. To enroll in honors thesis courses and to graduate with the honors designation, these minimum grade point averages must be maintained. Students applying for Honors in Major are expected to enroll in the appropriate honors thesis course during their final two semesters. The completed thesis must be approved by the supervising faculty sponsor from the student's discipline and the UPC. Students interested in this program should contact the Department of Finance office for additional information. Department honors can be attained independent of, or in addition to, University Honors.

### Bachelor of Business Administration Degree in Finance

The minimum number of semester credit hours for the Bachelor of Business Administration degree in Finance is 120.

All candidates seeking this degree must fulfill the Core Curriculum requirements, the Common Body of Knowledge requirements, and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Business Administration degree in Finance must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MTC 1033 Algebra with Calculus for Business <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Economics</i></b> (3 semester credit hours) ECO 2013 Introductory Macroeconomics</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Common Body of Knowledge (CBK)

All students seeking a B.B.A. degree in the College of Business must complete the following Common Body of Knowledge (CBK) courses in addition to the Core Curriculum.

<b>Course or Requirement</b>			<b>Semester Credit Hours</b>
ACC	2013	Principles of Accounting I	3
ACC	2033	Principles of Accounting II	3
BLW	3013	Business Law	3
COM	1053	Business and Professional Speech	3
ECO	2013	Introductory Macroeconomics (Domain II)	3
ECO	2023	Introductory Microeconomics	3
FIN	3013	Principles of Business Finance	3
GBA	2013	Social and Ethical Issues in Business	3
IS	1403	Business Information Systems Fluency	3
IS	3003	Principles of Information Systems for Management	3
MGT	3003	Business Communication and Professional Development	3
MGT	3013	Introduction to Organization Theory, Behavior, and Management	3
MGT	4893	Management Strategy and Policy (taken in semester of graduation)	3
MKT	3013	Principles of Marketing	3
MS	1013	Quantitative Methods for Business and Economics (Actuarial Science majors must take STA 3513 in lieu of MS 1013)	3
MS	3033	Management Science and Production Management	3
MTC	1033	Algebra with Calculus for Business (Domain I) (Actuarial Science majors must take MAT 1214 in lieu of MTC 1033)	3

In addition to the Core Curriculum requirements and requirements from the College of Business Common Body of Knowledge (CBK), all candidates for the degree must complete the following degree requirements.

## Degree Requirements

A. 24 upper-division semester credit hours in the major and supporting area:

ACC	3023	Intermediate Accounting I
FIN	3023	Intermediate Corporate Finance
FIN	3033	Principles of Investment
FIN	3313	Money and Banking

12 additional semester credit hours of finance electives; FIN 4873 Computer Modeling of Financial Applications is recommended as one of these finance electives

B. 9 semester credit hours of electives, which must be taken outside the College of Business

## Minor in Finance

The Minor in Finance is available only to students pursuing a B.B.A. degree. All students pursuing the Minor in Finance, with the exception of Construction Management majors (see degree requirement C on page 46), must complete 27 semester credit hours.

A. 18 semester credit hours of required courses:

ACC	2013	Principles of Accounting I
ACC	2033	Principles of Accounting II
FIN	3013	Principles of Business Finance
FIN	3033	Principles of Investment
FIN	3313	Money and Banking
MTC	1033	Algebra with Calculus for Business

B. 9 additional semester credit hours of upper-division finance electives

To declare a Minor in Finance, obtain advice and seek approval of substitutions for course requirements, students must consult the College of Business Undergraduate Advising Center.

## Bachelor of Business Administration Degree in Construction Management

The Bachelor of Business Administration degree in Construction Management is offered by the College of Business with support from the architecture program. Architecture courses are described under the School of Architecture. The minimum number of semester credit hours for this degree is 126.

All candidates seeking this degree must fulfill the Core Curriculum requirements, the Common Body of Knowledge (CBK) requirements, and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Business Administration degree in Construction Management must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

<b>Core Curriculum Requirements</b>	<b>Courses that Satisfy Core Curriculum and Degree Requirements</b>
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MTC 1033 Algebra with Calculus for Business <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) ECO 2013 Introductory Macroeconomics
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

### Common Body of Knowledge (CBK)

All students seeking a B.B.A. degree in the College of Business must complete the following Common Body of Knowledge (CBK) courses in addition to the Core Curriculum.

<b>Course or Requirement</b>	<b>Semester Credit Hours</b>
ACC 2013 Principles of Accounting I	3
ACC 2033 Principles of Accounting II	3
BLW 3013 Business Law	3
COM 1053 Business and Professional Speech	3
ECO 2013 Introductory Macroeconomics (Domain II)	3
ECO 2023 Introductory Microeconomics	3
FIN 3013 Principles of Business Finance	3
GBA 2013 Social and Ethical Issues in Business	3
IS 1403 Business Information Systems Fluency	3
IS 3003 Principles of Information Systems for Management	3
MGT 3003 Business Communication and Professional Development	3
MGT 3013 Introduction to Organization Theory, Behavior, and Management	3

MGT	4893	Management Strategy and Policy (taken in semester of graduation)	3
MKT	3013	Principles of Marketing	3
MS	1013	Quantitative Methods for Business and Economics (Actuarial Science majors must take STA 3513 in lieu of MS 1013)	3
MS	3033	Management Science and Production Management	3
MTC	1033	Algebra with Calculus for Business (Domain I) (Actuarial Science majors must take MAT 1214 in lieu of MTC 1033)	3

In addition to the Core Curriculum requirements and requirements from the College of Business Common Body of Knowledge (CBK), all candidates for the degree must complete the following degree requirements.

### Degree Requirements

#### A. 15 upper-division semester credit hours of courses:

ARC	3203	Housing Design and Development
ARC	4613	Construction Management I
BLW	3523	Real Estate Law
FIN	3433	Principles of Real Estate
FIN	4713	Mortgage Banking and Real Estate Finance

#### B. 15 semester credit hours of support work:

ARC	2213	Construction Materials and Concepts
ARC	4013	Building Construction Estimating I
ARC	4113	Project Development
FIN	4723	Real Estate Investment
FIN	4903	Internship in Construction Management

#### C. 9 semester credit hours of electives to be selected from the following with no more than two classes from the same discipline unless a student is pursuing a minor. Those Construction Management majors who plan to pursue a minor in Finance must take all 9 semester credit hours of electives in Finance, to include FIN 3033, Principles of Investment.

ARC	4223	Topics in Design Computing
ARC	4233	Computer Projects in Design
ARC	4423	History and Theory of Urban Form
ARC	4513	Professional Practice and Ethics
FIN	3023	Intermediate Corporate Finance
FIN	3033	Principles of Investment
FIN	3043	Capital Structure and Budgeting
FIN	4313	Commercial Bank Management
FIN	4853	Real Estate Appraisal
FIN	4873	Computer Modeling of Financial Applications
FIN	4933	Internship in Finance
GRG	3513	Urban Geography
GRG	3523	Introduction to Urban Planning
GRG	3633	Geography of Development
GRG	3733	Urban and Regional Analysis
MGT	3023	Understanding People and Organizations
MGT	4883	Managing Small Business
MKT	3063	Personal Selling
MKT	3083	Marketing Research
SOC	3033	Population Dynamics
SOC	3103	Complex Organizations
SPN	3153	Spanish for the Business/Management Fields

## COURSE DESCRIPTIONS FINANCE (FIN)

- 3003 Survey of Finance**  
(3-0) 3 hours credit. Prerequisite: ACC 2013 or the equivalent.  
A basic survey course focusing on three aspects of finance: the financial system, corporate finance, and investments. The financial environment will be described along with how the financial system interacts with the economy. Business decisions, efficient allocation of financial resources, and fundamentals of investment will be introduced. This course may not be applied toward a major nor a minor in finance but may be counted as an elective for College of Business students.
- 3013 Principles of Business Finance**  
(3-1) 3 hours credit. Prerequisites: ACC 2013, ACC 2033, and MTC 1033, or their equivalents.  
Introduction to financial management techniques. Topics may include time value of money, valuation of stocks and bonds, risk and return, capital budgeting analysis, financing alternatives, financial planning, ratio analysis, short-term financial decisions, working capital, sources and uses of funds, capital structure, dividend policy, lease analysis, options, international financial management, and other topics associated with successful business finance decisions in an internationally competitive environment. One hour laboratory included.
- 3023 Intermediate Corporate Finance**  
(3-0) 3 hours credit. Prerequisite: FIN 3013 or the equivalent.  
Advanced discussion of subjects essential to corporate financial management, including short-term credit policies, capital budgeting, risk, sources of long-term funds, financial leverage, and the cost of capital. Special topics such as mergers, bankruptcy, and reorganization may also be considered.
- 3033 Principles of Investment**  
(3-0) 3 hours credit. Prerequisite: FIN 3013 or the equivalent.  
Introduction to securities markets; analysis of money market instruments, mutual funds, stocks, bonds, options, futures, and other securities; investment management in the light of tax considerations, timing, and selected portfolio needs.
- 3043 Capital Structure and Budgeting**  
(3-0) 3 hours credit. Prerequisite: FIN 3013 or the equivalent.  
Application of long-term economic decision analysis to financial planning in both profit and nonprofit institutions; development of allocation criteria for sources and uses of scarce financial resources. (Formerly FIN 4403. Credit cannot be earned for both FIN 3043 and FIN 4403.)
- 3313 Money and Banking**  
(3-0) 3 hours credit. Prerequisite: ECO 2013 or the equivalent.  
Elements of monetary theory; relationships between money, prices, production, and employment; factors determining money supply; and operation of capital markets with reference to the United States.
- 3403 Cases in Financial Management**  
(3-0) 3 hours credit. Prerequisites: FIN 3033 and FIN 3313, or their equivalents.  
Advanced analysis of financial cases based on business problems. The application of financial theory and techniques is used to illustrate the process required to formulate financial decisions.
- 3413 Financial Markets**  
(3-0) 3 hours credit. Prerequisite: FIN 3313 or the equivalent.  
Analysis of financial management principles, theories, and techniques as they apply to the peculiarities of the financial firm; emphasis on asset and liability management in a changing environment of regulation, competition, and financial intermediation.

**3423 Security Analysis**

(3-0) 3 hours credit. Prerequisite: FIN 3033 or the equivalent.

Advanced financial analysis; examination of statements and supplementary data of industrial, commercial, financial intermediary, and public enterprises; preparation of reports relevant to achieving an understanding of financial management policies.

**3433 Principles of Real Estate**

(3-0) 3 hours credit.

General introduction to the subject matter and terminology of real estate as a business and profession; federal, state, and local laws governing housing discrimination, equal credit opportunity, and community reinvestment.

**4313 Commercial Bank Management**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and FIN 3313 or the equivalent.

Direction and coordination of the various functions of the commercial bank, including money position, lending, capital management, and trust and auxiliary functions.

**4423 Investment Portfolio Management**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and FIN 3033 or the equivalent.

Application of investment principles to management of investment portfolios of individuals and institutions; consideration of business cycles, investment constraints, portfolio construction, investment timing, and securities selection. Analysis of derivative securities and their use in the portfolio context.

**4523 Introduction to Risk Management**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and FIN 3013, or consent of instructor.

Analysis of risk management tools as an integral part of corporate financial decisions; alternatives for spreading risk such as insurance, retention funds, and external funds.

**4613 Introduction to International Finance**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and FIN 3013 or the equivalent.

Study of underlying forces in international financial relations and the unique problems of international trade, investments, and operations; examination of multinational business finance and its economic, legal, and political dimensions.

**4713 Mortgage Banking and Real Estate Finance**

(3-0) 3 hours credit. Prerequisites: MGT 3003, FIN 3013, and FIN 3433 or FIN 3033, or consent of instructor.

Planning, structure, and analysis of real estate financing from the viewpoints of both the users and suppliers of funds; examination of various techniques and legal instruments; institutional constraints and their effects on real estate lending activities; and federal, state, and local laws governing housing discrimination, equal credit opportunity, and community reinvestment.

**4723 Real Estate Investment**

(3-0) 3 hours credit. Prerequisites: MGT 3003, FIN 3013, and FIN 3433 or FIN 3033, or consent of instructor.

Analysis of real estate investment alternatives; feasibility and site analysis; tax considerations; income and expense analysis; discounted cash flow analysis; profitability measurement; and forms of ownership. (Formerly FIN 3503. Credit cannot be earned for both FIN 4723 and FIN 3503.)

**4813 Property-Liability Insurance Finance**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and FIN 3013 or the equivalent.

Analysis and management of risk and insurance, including the insurance contract, property insurance, liability insurance, business insurance, the insurance agency, financial structure and management of property-liability companies, and contemporary problems of property-liability insurance.

**4823 Life and Health Insurance Finance**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and FIN 3013 or the equivalent.

Philosophy of the life risk is developed, as well as an understanding of the special character of life and health

insurance, human life value, the customary and special uses of life insurance, and the history of life insurance companies. Life, health, and disability insurance contracts are investigated in addition to term and whole life insurance, agency structure, and current issues of life and health insurance.

**4853 Real Estate Appraisal**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and FIN 3013 and FIN 3433, their equivalents, or consent of instructor. Functions and methods of property valuation, including comparable sales analysis, cost depreciation analysis, and income capitalization; residential and income property appraisal techniques and reporting.

**4873 Computer Modeling of Financial Applications**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and FIN 3013 and IS 3003, or their equivalents. Provides the opportunity to develop computer modeling skills and techniques for analyzing financial situations encountered in business. Corporate decisions such as the analysis of financial statements, financial planning and forecasting, capital budgeting, and financing alternatives are modeled. Investment analysis topics include the valuation of stocks, bonds, and options, as well as performance analysis and portfolio management. Simulation techniques examine financial issues involving uncertainty.

**4903 Internship in Construction Management**

3 hours credit. Prerequisites: MGT 3003; completion of the 15 upper-division semester credit hours in the major and permission in writing from the instructor, the Department Chair, and the Dean of the College of Business. See the College of Business Undergraduate Advising Center for required forms.

This internship, as a course in support of the major, is limited to the business and financial aspects of construction and will allow students to gain valuable experience in the field. The internship facilitates an integrative experience through interaction with entrepreneurs and building development business owners. Students engage in research projects, examine relevant issues and problems that builders and developers confront, and have the opportunity to engage in managerial work experience. Internship may be repeated once (for a total of 6 semester credit hours) provided the internships are with different organizations.

**4913 Independent Study**

3 hours credit. Prerequisites: MGT 3003 and permission in writing from the instructor, the Department Chair, and the Dean of the College of Business. See the College of Business Undergraduate Advising Center for required forms.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4933 Internship in Finance**

3 hours credit. Prerequisites: MGT 3003, 12 semester credit hours of upper-division finance courses, an overall 2.5 grade point average, and permission in writing from the instructor, the Department Chair, and the Dean of the College of Business. See the College of Business Undergraduate Advising Center for required forms.

The opportunity for work experience in research of financial operations, including real estate and insurance, and may be undertaken in either private business or a public agency. Opportunities are developed in consultation with the faculty advisor and Department Chair and require approval of both. Internship may be repeated once (for a total of 6 semester credit hours) provided the internships are with different organizations, but only 3 hours may count toward the 21 hours of finance required for the major.

**4953 Special Studies in Finance**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when the topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4993 Honors Thesis**

3 hours credit. Prerequisite: MGT 3003. Enrollment limited to students applying for Honors in Finance (see page 42). Supervised research and preparation of an honors thesis. May be repeated once for credit with advisor's approval.

## DEPARTMENT OF INFORMATION SYSTEMS

The Department of Information Systems offers two undergraduate degree programs, one with a major in Information Systems, and the other in Infrastructure Assurance. The Department offers minors in Electronic Commerce and Information Systems, available only to students pursuing a Bachelor of Business Administration (B.B.A.) degree. The Department also offers a minor in Infrastructure Assurance and Security open to all majors in the University.

### DEPARTMENT HONORS

The Department of Information Systems offers the opportunity for certain of its outstanding students to achieve the designation of Honors in Major and provides the opportunity for advanced study under close faculty supervision.

Selection for Honors designation is based on the student's academic performance and recommendation by the Department Undergraduate Program Committee (UPC) in consultation with the faculty of the student's major discipline. To be eligible for the designation, students must have a minimum overall grade point average of 3.0 at UTSA and a minimum grade point average of 3.5 in their major. To enroll in honors thesis courses and to graduate with the Honors designation, these minimum grade point averages must be maintained. Students applying for Honors in Major are expected to enroll in the appropriate honors thesis course during the final two semesters. The completed honors thesis must be approved by the supervising faculty sponsor from the student's discipline and the UPC. Students interested in this program should contact the Department Chair for additional information. Major honors can be obtained independent of, or in addition to, University Honors.

### Bachelor of Business Administration Degree in Information Systems

The minimum number of semester credit hours for the Bachelor of Business Administration degree in Information Systems is 123.

All candidates seeking this degree must fulfill the Core Curriculum requirements, the Common Body of Knowledge (CBK) requirements, and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Business Administration degree in Information Systems must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MTC 1033 Algebra with Calculus for Business <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Economics</i></b> (3 semester credit hours) ECO 2013 Introductory Macroeconomics</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Common Body of Knowledge (CBK)

All students seeking a B.B.A. degree in the College of Business must complete the following Common Body of Knowledge (CBK) courses in addition to the Core Curriculum.

Course or Requirement			Semester Credit Hours
ACC	2013	Principles of Accounting I	3
ACC	2033	Principles of Accounting II	3
BLW	3013	Business Law	3
COM	1053	Business and Professional Speech	3
ECO	2013	Introductory Macroeconomics (Domain II)	3
ECO	2023	Introductory Microeconomics	3
FIN	3013	Principles of Business Finance	3
GBA	2013	Social and Ethical Issues in Business	3
IS	1403	Business Information Systems Fluency	3
IS	3003	Principles of Information Systems for Management	3
MGT	3003	Business Communication and Professional Development	3
MGT	3013	Introduction to Organization Theory, Behavior, and Management	3
MGT	4893	Management Strategy and Policy (taken in semester of graduation)	3
MKT	3013	Principles of Marketing	3
MS	1013	Quantitative Methods for Business and Economics (Actuarial Science majors must take STA 3513 in lieu of MS 1013)	3
MS	3033	Management Science and Production Management	3
MTC	1033	Algebra with Calculus for Business (Domain I) (Actuarial Science majors must take MAT 1214 in lieu of MTC 1033)	3

In addition to the Core Curriculum requirements and the College of Business Common Body of Knowledge (CBK), all candidates for the degree must complete the following degree requirements.

## Degree Requirements

A. 21 semester credit hours of information systems courses in the major:

IS	3063	Database Management for Information Systems
IS	3073	Application Development
IS	3413	Introduction to Telecommunications for Business
IS	4053	Analysis and Design of Information Systems
IS	4063	Advanced Topics in Information Systems

6 additional semester credit hours of upper-division information systems coursework

B. 9 semester credit hours of information systems support work:

IS	2033	Introduction to Computer Concepts for Information Systems
IS	2043	Data Structures and File Processing
PHI	2043	Introductory Logic

C. 6 semester credit hours of electives taken outside the College of Business

## Bachelor of Business Administration Degree in Infrastructure Assurance

The minimum number of semester credit hours for the Bachelor of Business Administration degree in Infrastructure Assurance is 126.

All candidates seeking this degree must fulfill the Core Curriculum requirements, the Common Body of Knowledge (CBK) requirements, and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Business Administration degree in Infrastructure Assurance must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MTC 1033 Algebra with Calculus for Business <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Economics</i></b> (3 semester credit hours) ECO 2013 Introductory Macroeconomics</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Common Body of Knowledge (CBK)

All students seeking a B.B.A. degree in the College of Business must complete the following Common Body of Knowledge (CBK) courses in addition to the Core Curriculum.

Course or Requirement			Semester Credit Hours
ACC	2013	Principles of Accounting I	3
ACC	2033	Principles of Accounting II	3
BLW	3013	Business Law	3
COM	1053	Business and Professional Speech	3
ECO	2013	Introductory Macroeconomics (Domain II)	3
ECO	2023	Introductory Microeconomics	3
FIN	3013	Principles of Business Finance	3
GBA	2013	Social and Ethical Issues in Business	3
IS	1403	Business Information Systems Fluency	3
IS	3003	Principles of Information Systems for Management	3
MGT	3003	Business Communication and Professional Development	3
MGT	3013	Introduction to Organization Theory, Behavior, and Management	3
MGT	4893	Management Strategy and policy (taken in semester of graduation)	3
MKT	3013	Principles of Marketing	3
MS	1013	Quantitative Methods for Business and Economics (Actuarial Science majors must take STA 3513 in lieu of MS 1013)	3
MS	3033	Management Science and Production Management	3
MTC	1033	Algebra with Calculus for Business (Domain I) (Actuarial Science majors must take MAT 1214 in lieu of MTC 1033)	3

In addition to the Core Curriculum requirements and the College of Business Common Body of Knowledge (CBK), all candidates for the degree must complete the following degree requirements.

## Degree Requirements

A. 24 semester credit hours of information systems courses in the major:

- IS 3033 Operating Systems
- IS 3413 Introduction to Telecommunications for Business
- IS 3423 Secure Network Design
- IS 3513 Information Assurance and Security

12 semester credit hours from the following:

- IS 3523 Intrusion Detection and Incident Response
- IS 4463 Secure Electronic Commerce
- IS 4473 Information Assurance Policy
- IS 4483 Cyber Forensics
- IS 4493 Access Controls
- IS 4513 System Control and Data Acquisition

B. 9 semester credit hours of information systems support work:

- IS 2033 Introduction to Computer Concepts for Information Systems
- IS 2043 Data Structures and File Processing
- PHI 2043 Introductory Logic

C. 6 semester credit hours of electives taken outside the College of Business

## Minor in Electronic Commerce

The Minor in Electronic Commerce is available only to students pursuing a B.B.A. degree. The number of hours for students enrolled as Information Systems majors in the College of Business is 18. Other majors within the College of Business may require additional hours in order to meet prerequisite requirements.

The following courses are required:

- IS 3073 Application Development
- IS 3413 Introduction to Telecommunications for Business
- IS 3513 Information Assurance and Security
- IS 4153 Electronic Commerce
- IS 4203 Business Process Re-engineering
- IS 4463 Secure Electronic Commerce

To declare a Minor in Electronic Commerce, obtain advice, and seek approval of course substitutions for course requirements, students must consult the College of Business Undergraduate Advising Center.

## Minor in Information Systems

The Minor in Information Systems is available only to students pursuing a B.B.A. degree. The number of hours for a student in the College of Business is 18.

A. The following courses are required:

- IS 2043 Data Structures and File Processing
- IS 3003 Principles of Information Systems for Management
- IS 3063 Database Management for Information Systems
- IS 3413 Introduction to Telecommunication for Business
- IS 4053 Analysis and Design of Information Systems

B. One elective course must be selected from the following:

- ACC 3113 Accounting Information Systems I  
or  
Any IS junior- or senior-level course that counts for the IS major

To declare a Minor in Information Systems, obtain advice, and seek approval of course substitutions for course requirements, students must consult the College of Business Undergraduate Advising Center.

### **Minor in Infrastructure Assurance and Security**

The Minor in Infrastructure Assurance and Security is open to all majors in the University. A student majoring in Information Systems will be required to take 18 hours of coursework. Other majors may be required to take additional hours depending on their academic background.

A. The following courses are required:

- IS 3413 Introduction to Telecommunications for Business  
IS 3423 Secure Network Design  
IS 3513 Information Assurance and Security  
IS 3523 Intrusion Detection and Incident Response

B. Two elective courses must be selected from the following:

- IS 4463 Secure Electronic Commerce  
IS 4473 Information Assurance Policy  
IS 4483 Cyber Forensics  
IS 4493 Access Controls  
IS 4513 System Control and Data Acquisition

To declare a Minor in Infrastructure Assurance and Security, obtain advice, and seek approval of course substitutions for course requirements, students must consult the College of Business Undergraduate Advising Center.

## **COURSE DESCRIPTIONS INFORMATION SYSTEMS (IS)**

### **1403 Business Information Systems Fluency**

(3-0) 3 hours credit.

Required course for all students majoring in Business at UTSA. This three-unit course concentrates on a set of core computing skills that are essential to student success, such as using e-mail, programming, word processing, spreadsheets, basic data management, and on- and off-campus Internet resources. In addition, students will choose from among a set of more specialized or detailed systems and applications for additional study, based on interest and major field. This is a Web-based course. [TCCN: BCIS 1305.]

### **2033 Introduction to Computer Concepts for Information Systems**

(3-0) 3 hours credit.

An introduction to programming with procedural languages. Addresses basic elements of structured programming, including control structures, arrays, lists, and modular design.

### **2043 Data Structures and File Processing**

(3-0) 3 hours credit. Prerequisite: IS 1403 or consent of instructor.

An introduction to principles of computer programming and file organization including file structures, access methods, and abstract data types. A procedural language will be used to develop applications using these concepts.

**3003 Principles of Information Systems for Management**

(3-0) 3 hours credit. Prerequisite: IS 1403.

An analysis of managerial/organizational information needs. Systematic procedures for developing information systems are covered. Includes coverage of hardware and software tools, information structures, and formal problem-solving techniques. Issues related to organizational controls, security, and globalization as a result of changing technologies are discussed. Cases will be assigned to illustrate the use of specific tools and techniques for problem solving.

**3033 Operating Systems**

(3-0) 3 hours credit. Prerequisite: IS 2043 or consent of instructor.

This course examines the role of computer operating systems in the overall vulnerability of the network. A comparison of the more popular operating systems will be used to illustrate the concepts to the class.

**3053 Database Management for Business**

(3-0) 3 hours credit. Prerequisite: IS 3003.

The use of databases in a contemporary environment, including an in-depth analysis of topics associated with the definition, creation, and use of databases for business-oriented applications. Topics will include current applications in the field of database management systems with hands-on experience with a database or data warehousing software. May not be applied to a major in information systems.

**3063 Database Management for Information Systems**

(3-0) 3 hours credit. Prerequisite: IS 2043.

A study of database management systems (DBMS) features, functions, and architecture, including logical design, data models, normalization, object-oriented data, and database administration. A DBMS product will be used to illustrate principles.

**3073 Application Development**

(3-0) 3 hours credit. Prerequisites: IS 2043, PHI 2043, and CS 1063.

A study of the use of information systems techniques to solve managerial problems. Includes cases where students are asked to design and implement information systems that address various classes of analytic problems. Principles of decision theory are addressed.

**3083 Computer Graphics**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

Emphasis on the theory of animation and multimedia design of computer-generated images. Popular software packages will be used to demonstrate concepts and create animation and multimedia projects. Video and audio technologies, as well as creating animation and multimedia pages for the Internet, will be included.

**3093 Computer Support of Groups**

(3-0) 3 hours credit. Prerequisite: IS 3003.

This course is designed to examine the ways in which computers can be used to support the communication, coordination, and decision-making needs of groups. The course will study the problems that face-to-face and distributed groups encounter in an organizational environment and will review the technology available to address these problems.

**3413 Introduction to Telecommunications for Business**

(3-0) 3 hours credit. Prerequisites: IS 3003 and 6 hours of IS coursework, or consent of instructor.

Includes an in-depth look at basic telecommunications terminology and concepts. Introduction to voice and data networks, signaling and multiplexing. Network topologies and protocol fundamentals and architectures are presented and compared. Frame relay, X.25, and ATM packet technologies are introduced. Network security fundamentals are explored. (Formerly IS 4123. Credit cannot be earned for both IS 3413 and IS 4123.)

- 3423 Secure Network Design**  
(3-0) 3 hours credit. Prerequisite: IS 3413 or consent of instructor.  
The course provides a foundation in the issues and principles of the design and management of secure networks. Topics included in this course are network security, configuration management, fault management, and performance management. Current networking and network management software and the role played by network protocols and products will be discussed. (Formerly IS 4133. Credit cannot be earned for both IS 3423 and IS 4133.)
- 3513 Information Assurance and Security**  
(3-0) 3 hours credit. Prerequisite: IS 3413 or consent of instructor.  
This course provides an in-depth presentation of information assurance topics such as fraud, eavesdropping, traffic analysis, intrusion detection and prevention, hacking, viruses, and cryptography. Risk management will also be discussed. (Formerly IS 4453. Credit cannot be earned for both IS 3513 and IS 4453.)
- 3523 Intrusion Detection and Incident Response**  
(3-0) 3 hours credit. Prerequisite: IS 3513.  
Course takes an in-depth look at intrusion detection methodologies and tools and the approaches to handling intrusions when they occur. Examines the laws that address cyber crime and intellectual property issues. Includes a study of proper computer and network forensics procedures to aid in the identification and tracking of intruders and in the potential prosecution of criminal activity.
- 4053 Analysis and Design of Information Systems**  
(3-0) 3 hours credit. Prerequisites: MGT 3003 and IS 3063.  
An introduction to systems theory and development techniques. Topics include problem definition, object-oriented design, issues for cost/benefit analyses, and CASE tools.
- 4063 Advanced Topics in Information Systems**  
(3-0) 3 hours credit. Prerequisites: MGT 3003 and 15 semester credit hours of information systems courses (excludes IS 1403 and IS 3003).  
Survey of recent developments in information technology. Analysis will focus on applications in the business community and theoretical developments that relate to those applications. Ordinarily taken during semester of graduation.
- 4073 The Information Resource**  
(3-0) 3 hours credit. Prerequisites: MGT 3003, MGT 3013, and IS 3003.  
A study of the principles and concepts involved in the management of organizational information systems resources. Topics include project control, CIO functions, information systems planning, strategic impact of information systems, multinational organizations, and relevant legal, professional, and ethical issues.
- 4143 Wide Area Networks**  
(3-0) 3 hours credit. Prerequisites: MGT 3003 and IS 3413 or consent of instructor.  
This course explores the telecommunication technologies used in wide area networks. Technologies such as frame relay, ATM, TCP/IP, and voice over IP will be studied. The role of the common carriers will also be discussed. Secure network traffic over TCP/IP will be included.
- 4153 Electronic Commerce**  
(3-0) 3 hours of credit. Prerequisites: MGT 3003 and IS 3073 or consent of instructor.  
A study of issues related to the use of electronic networks to facilitate inter- and intra-organizational business activities. The principles of Web site design from the consumer and the information systems points of view will be presented. The course will also include the development of a Web site.
- 4163 Advanced Programming Concepts**  
(3-0) 3 hours credit. Prerequisites: MGT 3003 and IS 3063.  
A survey of programming languages and application development facilities. Topics may include procedural languages as well as very high-level languages, end-user application development languages, and object-oriented languages.

**4183 Advanced Database Concepts**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and IS 3063.

In-depth consideration of concepts governing the design and management of database systems. Topics include database design, distributed databases, database administration, object-oriented data modeling, and performance evaluation.

**4203 Business Process Re-engineering**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and IS 4153 or consent of instructor.

The course examines the role of e-commerce in changing the business models. The use of the Internet as a way of changing the traditional models for marketing and manufacturing will be discussed. The focus of the course will be new product design, new business practices, and product life cycle, which are all affected by the use of the Internet and the new business models that are being developed.

**4463 Secure Electronic Commerce**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and IS 3513 or consent of instructor.

The security issues related to electronic commerce will be discussed in this course. The legal environment of e-commerce, public and private key encryption, digital signatures, authentication, and third party certificates are topics that will be included.

**4473 Information Assurance Policy**

(3-0) 3 hours credit. Prerequisites: MGT 3003, IS 3413, and one three-credit-hour security course, or consent of instructor.

There are many policy issues, within the firm and at various levels of government, that affect information assurance. This course will examine how these policies affect electronic security. Subjects will include privacy of information, intellectual property protection, globalization of information systems, and other policy matters. The protection and control of secured information will also be discussed.

**4483 Cyber Forensics**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and IS 3513.

An introductory course in collecting, examining, and preserving evidence of computer crimes. This course examines the issues, tools, and control techniques needed to successfully investigate illegal activities perpetuated through the use of information technology. The tools of collecting, examining, and evaluating data in an effort to establish intent, culpability, motive, means, methods, and loss resulting from e-crimes will be examined.

**4493 Access Controls**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and IS 3513.

An introductory course in controlling access to information. Emphasis will be on access to both files and facilities. Various methods of access requiring different levels of identification, authentication, authorization, and accountability will be discussed. Authentication devices, such as fingerprint and retinal scanners, will be examined.

**4513 System Control and Data Acquisition**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and IS 3513 or consent of instructor.

Many of the critical infrastructure systems contain a system control and data acquisition (SCADA) component. Frequently, the SCADA is remotely accessed and therefore becomes the focal point for attack. This course examines the SCADA components from the standpoint of vulnerability and protection.

**4911-3 Independent Study**

1 to 3 hours credit. Prerequisites: MGT 3003 and permission in writing from the instructor, the Department Chair, and the Dean of the College of Business. See the College of Business Undergraduate Advising Center for the required forms.

Independent research in an information systems topic under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4933 Internship in Information Systems**

3 hours credit. Prerequisites: MGT 3003, 9 semester credit hours of Information Systems courses (excluding IS 1403 and IS 3003), an overall 2.5 grade point average, and permission in writing from the Instructor, the Department Chair, and the Dean of the College of Business. See the College of Business Undergraduate Advising Center for required forms.

The opportunity to gain knowledge through experiential activities in professional life. Joint cooperation with business and governmental institutions in structuring and monitoring work experience aimed at supplementing the classroom learning process. May not be repeated for credit.

**4953 Special Studies in Information Systems**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and consent of instructor.

An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when the topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4993 Honors Thesis**

3 hours credit. Prerequisite: MGT 3003. Enrollment limited to students applying for Honors in Information Systems (see page 50).

Supervised research and preparation of an honors thesis. May be repeated once for credit with advisor's approval. No more than 3 semester credit hours may apply toward information systems major requirements.

## DEPARTMENT OF MANAGEMENT

The Department of Management offers an undergraduate degree program with a major in management. Concentrations within management in international business and small business and entrepreneurship may also be pursued. The Department also offers an undergraduate degree program with a major in human resource management. The Department offers minors in international management and management available only to students pursuing a Bachelor of Business Administration (B.B.A.) degree.

### DEPARTMENT HONORS

The Department of Management offers the opportunity for certain of its outstanding students to achieve the designation of Honors in Major and provides the opportunity for advanced study under close faculty supervision.

Selection for honors designation is based on the student's academic performance and recommendation by the Department Undergraduate Programs Committee (UPC). To be eligible for the designation, students must have a minimum overall grade point average of 3.0 at UTSA and a minimum grade point average of 3.5 in their major at UTSA. To enroll in honors thesis courses and to graduate with the honors designation, these minimum grade point averages must be maintained. Students applying for Honors in Major are expected to enroll in the appropriate honors thesis course during their final two semesters. The completed thesis must be approved by the supervising faculty sponsor from the student's discipline and the Undergraduate Programs Committee. Students interested in this program should contact the Department Chair for additional information. Department honors can be attained independent of, or in addition to, University Honors.

### Bachelor of Business Administration Degree in Management

The minimum number of semester credit hours required for this degree is 120.

All candidates seeking this degree must fulfill the Core Curriculum requirements, the Common Body of Knowledge (CBK) requirements, and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Business Administration degree in Management must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<i>Mathematics</i> (3 semester credit hours) MTC 1033 Algebra with Calculus for Business <i>Science</i> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate section in the list of core courses will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Economics</i></b> (3 semester credit hours) ECO 2013 Introductory Macroeconomics</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Common Body of Knowledge (CBK)

All students seeking a B.B.A. degree in the College of Business must complete the following Common Body of Knowledge (CBK) courses in addition to the Core Curriculum.

<b>Course or Requirement</b>			<b>Semester Credit Hours</b>
ACC	2013	Principles of Accounting I	3
ACC	2033	Principles of Accounting II	3
BLW	3013	Business Law	3
COM	1053	Business and Professional Speech	3
ECO	2013	Introductory Macroeconomics (Domain II)	3
ECO	2023	Introductory Microeconomics	3
FIN	3013	Principles of Business Finance	3
GBA	2013	Social and Ethical Issues in Business	3
IS	1403	Business Information Systems Fluency	3
IS	3003	Principles of Information Systems for Management	3
MGT	3003	Business Communication and Professional Development	3
MGT	3013	Introduction to Organization Theory, Behavior, and Management	3
MGT	4893	Management Strategy and Policy (taken in semester of graduation)	3
MKT	3013	Principles of Marketing	3
MS	1013	Quantitative Methods for Business and Economics (Actuarial Science majors must take STA 3513 in lieu of MS 1013)	3
MS	3033	Management Science and Production Management	3
MTC	1033	Algebra with Calculus for Business (Domain I) (Actuarial Science majors must take MAT 1214 in lieu of MTC 1033)	3

In addition to the Core Curriculum requirements and requirements from the College of Business Common Body of Knowledge (CBK), all candidates for the degree must complete the following degree requirements.

## Degree Requirements

A. 15 required upper-division semester credit hours in the major:

MGT	3023	Understanding People and Organizations
MGT	3613	Managing Human Resources
MGT	4213	Designing Organizations
MGT	4923	Leading Organizations and Making Decisions
MGT	4943	Managing Effective Teams and Resolving Conflict

B. 3 semester credit hours of support work in Management

C. 6 semester credit hours of support work selected from College of Business upper-division electives, in addition to the Core Curriculum and CBK requirements

D. 9 semester credit hours of upper-division electives from outside the College of Business, 6 hours of which must have international content. Such international content courses could include, but not be limited to:

GRG	3123	Geography of Latin America
GRG	3133	Geography of Europe
HIS	3303	History of Mexico
HIS	3353	Latin America Since Independence
HIS	3523	European Cultural History
POL	3393	Latin American Politics
POL	3403	European Politics
POL	3453	The Politics of Mexico

The courses listed above are examples. Many different types of courses can satisfy the requirement.

## Bachelor of Business Administration Degree in Management with an International Business Concentration

The minimum number of semester credit hours required for this degree is 120.

All candidates seeking this degree must fulfill the Core Curriculum requirements, the Common Body of Knowledge (CBK) requirements, and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Business Administration degree in Management with an International Business Concentration must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II

<b>Domain I: Mathematics and Science</b>	<p><i>Mathematics</i> (3 semester credit hours) MTC 1033 Algebra with Calculus for Business</p> <p><i>Science</i> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.</p>
<b>Domain II: Society and Culture</b>	<p><i>United States History and Diversity</i> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><i>Political Studies</i> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><i>Social and Behavioral Sciences</i> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><i>Economics</i> (3 semester credit hours) ECO 2013 Introductory Macroeconomics</p>
<b>Domain III: Literature and the Arts</b>	<p><i>Literature</i> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><i>The Arts</i> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours from the following list will satisfy both this core requirement and a degree requirement: GRG 1023 World Regional Geography HIS 2533 Introduction to Latin American Civilization HIS 2543 Introduction to Islamic Civilization HIS 2553 Introduction to East Asian Civilization HIS 2573 Introduction to African Civilization HIS 2583 Introduction to South Asian Civilization IDS 2213 World Civilization since the Fifteenth Century</p>

### Common Body of Knowledge (CBK)

All students seeking a B.B.A. degree in the College of Business must complete the following Common Body of Knowledge (CBK) courses in addition to the Core Curriculum.

Course or Requirement			Semester Credit Hours
ACC	2013	Principles of Accounting I	3
ACC	2033	Principles of Accounting II	3
BLW	3013	Business Law	3
COM	1053	Business and Professional Speech	3
ECO	2013	Introductory Macroeconomics (Domain II)	3
ECO	2023	Introductory Microeconomics	3
FIN	3013	Principles of Business Finance	3
GBA	2013	Social and Ethical Issues in Business	3
IS	1403	Business Information Systems Fluency	3
IS	3003	Principles of Information Systems for Management	3

MGT	3003	Business Communication and Professional Development	3
MGT	3013	Introduction to Organization Theory, Behavior, and Management	3
MGT	4893	Management Strategy and Policy (taken in semester of graduation)	3
MKT	3013	Principles of Marketing	3
MS	1013	Quantitative Methods for Business and Economics (Actuarial Science majors must take STA 3513 in lieu of MS 1013)	3
MS	3033	Management Science and Production Management	3
MTC	1033	Algebra with Calculus for Business (Domain I) (Actuarial Science majors must take MAT 1214 in lieu of MTC 1033)	3

In addition to the Core Curriculum requirements and requirements from the College of Business Common Body of Knowledge (CBK), all candidates for the degree must complete the following degree requirements.

### Degree Requirements

A. 18 upper-division semester credit hours of international courses in the major:

MGT	4073	International Management
MGT	4083	Comparative International Management Practices
MKT	4073	International Marketing

9 semester credit hours selected from the following:

ECO	3193	The International Economy
ECO	4303	Economic Problems of Developing Countries
ECO	4953	Special Studies in Economics (international topics only)
FIN	4613	Introduction to International Finance
MGT	3023	Understanding People and Organizations
MGT	4933	Internship in Management
MKT	4953	Special Studies in Marketing (international topics only)

or other international business electives as approved by Department of Management faculty through the College of Business Undergraduate Advising Center.

B. 9 semester credit hours of directed elective support work outside the College of Business, as follows (\*these courses may be taken to fulfill Core Curriculum requirements; if so, nonbusiness electives must be taken to fulfill the minimum 120 credit hours required for the degree):

1. 3 semester credit hours from the following:

GRG	1023	World Regional Geography*
GRG	3123	Geography of Latin America
GRG	3133	Geography of Europe
GRG	3213	Cultural Geography
GRG	3613	Conservation of Resources
GRG	3633	Geography of Development

2. 3 semester credit hours from the following:

HIS	2533	Introduction to Latin American Civilization*
HIS	2543	Introduction to Islamic Civilization*
HIS	2553	Introduction to East Asian Civilization*
HIS	2563	Introduction to European Civilization
HIS	2573	Introduction to African Civilization*

HIS	2583	Introduction to South Asian Civilization*
HIS	3213	France since 1750
HIS	3283	Twentieth-Century Europe
HIS	3303	History of Mexico
HIS	3353	Latin America since Independence
HIS	3523	European Cultural History
HIS	3823	History of American Foreign Relations
IDS	2213	World Civilization since the Fifteenth Century*

3. 3 semester credit hours from the following:

POL	2603	International Politics
POL	2633	Comparative Politics
POL	3393	Latin American Politics
POL	3403	European Politics
POL	3433	Governments and Politics of Southeast Asia
POL	3443	Governments and Politics of East Asia
POL	3453	The Politics of Mexico
POL	3493	Politics of the Middle East
POL	3563	Current Issues in World Politics

C. 6 semester credit hours of electives from outside the College of Business

### **Bachelor of Business Administration Degree in Management with a Small Business and Entrepreneurship Concentration**

The minimum number of semester credit hours required for this degree is 120.

All candidates seeking this degree must fulfill the Core Curriculum requirements, the Common Body of Knowledge (CBK) requirements, and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Business Administration degree in Management with a Small Business and Entrepreneurship Concentration must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

<b>Core Curriculum Requirements</b>	<b>Courses that Satisfy Core Curriculum and Degree Requirements</b>
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MTC 1033 Algebra with Calculus for Business <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Economics</i></b> (3 semester credit hours) ECO 2013 Introductory Macroeconomics</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Common Body of Knowledge (CBK)

All students seeking a B.B.A. degree in the College of Business must complete the following Common Body of Knowledge (CBK) courses in addition to the Core Curriculum.

<b>Course or Requirement</b>			<b>Semester Credit Hours</b>
ACC	2013	Principles of Accounting I	3
ACC	2033	Principles of Accounting II	3
BLW	3013	Business Law	3
COM	1053	Business and Professional Speech	3
ECO	2013	Introductory Macroeconomics (Domain II)	3
ECO	2023	Introductory Microeconomics	3
FIN	3013	Principles of Business Finance	3
GBA	2013	Social and Ethical Issues in Business	3
IS	1403	Business Information Systems Fluency	3
IS	3003	Principles of Information Systems for Management	3
MGT	3003	Business Communication and Professional Development	3
MGT	3013	Introduction to Organization Theory, Behavior, and Management	3
MGT	4893	Management Strategy and Policy (taken in semester of graduation)	3
MKT	3013	Principles of Marketing	3
MS	1013	Quantitative Methods for Business and Economics (Actuarial Science majors must take STA 3513 in lieu of MS 1013)	3
MS	3033	Management Science and Production Management	3
MTC	1033	Algebra with Calculus for Business (Domain I) (Actuarial Science majors must take MAT 1214 in lieu of MTC 1033)	3

In addition to the Core Curriculum requirements and requirements from the College of Business Common Body of Knowledge (CBK), all candidates for the degree must complete the following degree requirements.

## Degree Requirements

A. 15 semester credit hours of required courses in the major:

MGT	3023	Understanding People and Organizations
MGT	4023	Business Plan
MGT	4873	Entrepreneurship
MGT	4883	Managing Small Business
MGT	4903	Practicum in Small Business and Entrepreneurship

B. 9 semester credit hours of support work within the College of Business from the following:

MGT	3613	Managing Human Resources
MGT	4213	Designing Organizations
MGT	4923	Leading Organizations and Making Decisions
MGT	4943	Managing Effective Teams and Resolving Conflict
MGT	4903	Practicum in Small Business and Entrepreneurship
MGT	4953	Special Studies in Management (Small Business and Entrepreneurship Topics only)

C. 6 semester credit hours of support work from the following:

COM	2113	Public Speaking
COM	3633	Professional Presentation
ENG	2413	Technical Writing

D. 3 semester credit hours of upper-division electives from outside the College of Business

## Bachelor of Business Administration Degree in Human Resource Management

The minimum number of semester credit hours required for this degree is 120.

All candidates seeking this degree must fulfill the Core Curriculum requirements, the Common Body of Knowledge (CBK) requirements, and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Business Administration degree in Human Resource Management must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MTC 1033 Algebra with Calculus for Business <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Economics</i></b> (3 semester credit hours) ECO 2013 Introductory Macroeconomics</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Common Body of Knowledge (CBK)

All students seeking a B.B.A. degree in the College of Business must complete the following Common Body of Knowledge (CBK) courses in addition to the Core Curriculum.

<b>Course or Requirement</b>			<b>Semester Credit Hours</b>
ACC	2013	Principles of Accounting I	3
ACC	2033	Principles of Accounting II	3
BLW	3013	Business Law	3
COM	1053	Business and Professional Speech	3
ECO	2013	Introductory Macroeconomics (Domain II)	3
ECO	2023	Introductory Microeconomics	3
FIN	3013	Principles of Business Finance	3
GBA	2013	Social and Ethical Issues in Business	3
IS	1403	Business Information Systems Fluency	3
IS	3003	Principles of Information Systems for Management	3
MGT	3003	Business Communication and Professional Development	3
MGT	3013	Introduction to Organization Theory, Behavior, and Management	3
MGT	4893	Management Strategy and Policy (taken in semester of graduation)	3
MKT	3013	Principles of Marketing	3
MS	1013	Quantitative Methods for Business and Economics	3
		(Actuarial Science majors must take STA 3513 in lieu of MS 1013)	
MS	3033	Management Science and Production Management	3
MTC	1033	Algebra with Calculus for Business (Domain I)	3
		(Actuarial Science majors must take MAT 1214 in lieu of MTC 1033)	

In addition to the Core Curriculum Requirements and requirements from the College of Business Common Body of Knowledge (CBK), all candidates for the degree must complete the following degree requirements.

## Degree Requirements

A. 15 upper-division semester credit hours in the major:

MGT	3613	Managing Human Resources
MGT	4613	Compensating Employees
MGT	4623	Staffing Organizations
MGT	4663	Training and Developing Employees
MGT	4803	Strategic Human Resources Management

B. 9 additional semester credit hours of human resource electives chosen from the following:

MGT	3023	Understanding People and Organizations
MGT	3123	Organizational Communication
MGT	3253	Interpersonal Communication
MGT	3803	Strategic Management of Nonprofit Organizations
MGT	4213	Designing Organizations
MGT	4633	Labor Relations
MGT	4643	Human Resources Law
MGT	4813	Current Topics in Human Resource Management
MGT	4923	Leading Organizations and Making Decisions
MGT	4933	Internship in Management (HR internship)
MGT	4953	Special Studies in Management

To substitute another course for one of these human resource electives, a student must submit a petition to the College of Business Undergraduate Advising Center and receive approval from a Human Resource Management full-time faculty member before registering for the course.

C. 6 semester credit hours of support work:

COM	2113	Public Speaking
ENG	2413	Technical Writing

D. 3 semester credit hours from outside the College of Business from the following:

POL	3703	Personnel Administration in the Public Sector
PSY	3203	Industrial and Organizational Psychology
SOC	3193	The Sociology of Work and Occupations

To substitute another course for a support work course, a student must submit a petition to the College of Business Undergraduate Advising Center and receive approval from a Human Resource Management full-time faculty member before registering for the course.

## Minor in International Management

The Minor in International Management is available only to students pursuing a B.B.A. degree. All students pursuing the minor must take the following 18 semester hours:

ECO	2013	Introductory Macroeconomics (may be used to satisfy the core curriculum requirement)
MGT	3013	Introduction to Organization Theory, Behavior, and Management
MGT	4073	International Management
MGT	4083	Comparative International Management Practices
MKT	3013	Principles of Marketing
MKT	4073	International Marketing

To declare a Minor in International Management, obtain advice, and seek approval of substitutions for course requirements, students must consult the College of Business Undergraduate Advising Center.

## Minor in Management

The Minor in Management is available only to students pursuing a B.B.A. degree. All students pursuing the minor must complete 18 semester credit hours.

A. 9 semester credit hours of required courses:

MGT	3003	Business Communication and Professional Development
MGT	3013	Introduction to Organization Theory, Behavior, and Management
MGT	3023	Understanding People and Organizations

B. 9 semester credit hours of upper-division Management courses that are not part of the Common Body of Knowledge (CBK).

To declare a Minor in Management, obtain advice, and seek approval of substitutions for course requirements, students must consult the College of Business Undergraduate Advising Center.

### COURSE DESCRIPTIONS MANAGEMENT (MGT)

#### **3003 Business Communication and Professional Development**

(3-0) 3 hours credit. Prerequisites: COM 1043 or COM 1053, and WRC 1023.

This course examines basic interpersonal communication processes within written and oral channels, with practical applications for the business environment. Issues regarding cross-cultural communications and ethical considerations in business communication are discussed. The course emphasizes three areas: 1) planning, researching, organizing, writing, editing, and revising business-related documents; 2) planning, organizing, and delivering oral presentations in a business setting; and 3) preparing for professional success in the business world, including career planning, networking, job searching, resumé preparation, and job application and interviewing. Written assignments and oral presentations are required. (Formerly MGT 3043. Credit cannot be earned for both MGT 3003 and MGT 3043.)

#### **3013 Introduction to Organization Theory, Behavior, and Management**

(3-0) 3 hours credit.

A study of the complex role managers play in creating and maintaining organizations. Organization theory and behavior are explored within the context of changing technological, social, and political/legal environments and the internationalization of the economy. Some introduction to strategic analysis, planning, and decision making. Attention is given to the ethical dimensions of management and social responsibility.

#### **3023 Understanding People and Organizations**

(3-0) 3 hours credit. Prerequisite: MGT 3013.

A critical examination of behavioral theory as it relates to the management of individuals, dyads, and groups in organizations. Investigation of the organization as an open system of tasks, structures, tools, and people in states of continuous change.

#### **3123 Organizational Communication**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and MGT 3013.

Theory and research in organizational communication. The course will examine the barriers to effective organizational communication; group communication and decision making; information flows through the formal and informal networks of organizations. The course will also stress the means of evaluating organizational communication effectiveness. (Same as COM 3893. Credit cannot be earned for both MGT 3123 and COM 3893.)

- 3253 Interpersonal Communication**  
(3-0) 3 hours credit. Prerequisite: MGT 3003.  
Theory and research of communication in personal and professional settings. The course stresses the social context of communication and emphasizes skills, knowledge, and motivation of verbal and nonverbal interactions. (Same as COM 3383. Credit cannot be earned for both MGT 3253 and COM 3383.)
- 3613 Managing Human Resources**  
(3-0) 3 hours credit. Prerequisite: MGT 3013.  
Analysis of how organizations attract, motivate, develop, and retain employees, and how they interact with organizations representing employees. Designed to provide students with an opportunity to understand the functional areas of human resource management and the integration of these functions into an effective and efficient human resource management system.
- 3803 Strategic Management of Nonprofit Organizations**  
(3-0) 3 hours credit.  
Analysis of administrative structure, decision making, and program delivery for nonprofit organizations. Includes management of agency operations in areas of leadership, strategic planning, staffing, personnel selection and policies, volunteers, boards, and community relations.
- 4023 Business Plan**  
(3-0) 3 hours credit. Prerequisites: MGT 3003 and MGT 3013.  
This course requires students to work in a team where they propose a new business and develop a business plan for the business. The teams will learn to present and defend their plan and will compete in a business plan competition at the end of the semester.
- 4073 International Management**  
(3-0) 3 hours credit. Prerequisites: MGT 3003 and MGT 3013.  
Management in a multinational context. The study of international business strategy, structure, organization options, staffing, communications, cultural dimensions, and different countries' objectives and political and legal frameworks. Emphasis on thinking globally and competitively.
- 4083 Comparative International Management Practices**  
(3-0) 3 hours credit. Prerequisites: MGT 3003 and MGT 3013.  
The study of management practices of other countries, including their cultural, social, political and legal, and industrial economic perspectives. Emphasis on different international regions at different times and their impact on American and global management practices.
- 4203 Business and Society**  
(3-0) 3 hours credit. Prerequisite: MGT 3003.  
A study of the impact of societal influences on the business decision-making process. Special attention given to business-government relationships and the role of the organization in the community.
- 4213 Designing Organizations**  
(3-0) 3 hours credit. Prerequisites: MGT 3003, MGT 3013, and MGT 3023.  
Study of the antecedents and consequences of organizational design and structure. Emphasis on the implications for managing behavior in a rapidly changing, global environment.
- 4613 Compensating Employees**  
(3-0) 3 hours credit. Prerequisites: MGT 3003 and MGT 3613 or consent of instructor.  
Analyzing, developing, implementing, administering, and performing ongoing evaluation of a total compensation and benefits system for all employee groups consistent with organizational goals. (Formerly MGT 3623. Credit cannot be earned for both MGT 4613 and MGT 3623.)

**4623 Staffing Organizations**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and MGT 3613.

Planning, developing, implementing, administering, and performing ongoing evaluation of recruiting, hiring, orientation, and organizational exit to ensure that the workforce will meet the organization's goals and objectives.

**4633 Labor Relations**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and MGT 3613.

The process of analyzing, developing, implementing, administering, and performing ongoing evaluation of the workplace relationship between employer and employee (including the collective bargaining process and union relations), in order to maintain effective relationships and working conditions that balance the employer's needs with the employees' rights in support of the organization's strategic objectives.

**4643 Human Resources Law**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and BLW 3013.

An analysis of historical and contemporary laws in the United States that affect the human resource management function. Integration of labor and employment law with the social and economic forces shaping the current labor-management environment.

**4663 Training and Developing Employees**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and MGT 3613.

The processes of ensuring that the skills, knowledge, abilities, and performance of the workforce meet the current and future organizational and individual needs through developing, implementing, and evaluating activities and programs addressing employee training and development, change and performance management, and the unique needs of particular employee groups.

**4803 Strategic Human Resources Management**

(3-0) 3 hours credit. Prerequisites: MGT 3003, MGT 3613, and one of the following: MGT 4613, MGT 4623, or MGT 4663.

Analysis of how human resource management might aid in developing competitive advantage and what might be done to fulfill this potential. Emphasis is on the processes and activities used to formulate HR objectives, practices, and policies to meet the short-range and long-range organizational needs and opportunities, to guide and lead the change process, and to evaluate the contributions of human resources to organizational effectiveness.

**4813 Current Topics in Human Resource Management**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and consent of instructor.

Critical analysis of current trends in human resources management theory, research, and practice. Emphasis on the analysis, synthesis, and evaluation of contemporary human resource management issues. May be repeated for credit when topics vary.

**4873 Entrepreneurship**

(3-0) 3 hours credit. Prerequisite: MGT 3003.

Examines how and why entrepreneurs develop and/or grow a business as facilitated by the objectives and resources of the entrepreneur. Topics include new ventures, acquisitions, strategy formulation, growth, and unique ways in which the development of a sustainable competitive advantage can be achieved in small business.

**4883 Managing Small Business**

(3-0) 3 hours credit. Prerequisites: MGT 3003, MGT 3013, and MKT 3013.

Focuses on the operation of small businesses. Analyzes the accounting, finance, production, and marketing functions as they pertain to entrepreneurial endeavors. Develops overall managerial awareness and analytical skills in small business problem solving.

**4893 Management Strategy and Policy**

(3-0) 3 hours credit. Prerequisite: MGT 3003; College of Business declared major in semester of graduation. Permission given through the College of Business Undergraduate Advising Center before registration.

A study of the processes involved in the formulation and implementation of policy and strategy in realistic organizational settings. Students are required to integrate their functional knowledge with the social, political, ethical,

technological, and international dimensions of managerial decision making and relate it to problems concerning the relationship between the total organization and its environment. Creative analytical skills and effective communication in light of current management thinking are emphasized.

**4903 Practicum in Small Business and Entrepreneurship**

3 hours credit. Prerequisites: MGT 3003 and permission from the instructor.

This practicum will allow students to gain valuable experience in the field. Drawing on the resources of the UTSA Small Business Development Center, local businesses, and entrepreneurs, the practicum provides students with the opportunity to examine real-world business problems, and thus gain insight into the challenges of starting and managing a small business. Students will select from specific business problems or projects identified by small businesses. (Practicum may be repeated for a total of 6 semester credit hours.)

**4913 Independent Study**

3 hours credit. Prerequisites: MGT 3003 and permission in writing from the instructor, the Department Chair, and the Dean of the College of Business. See the College of Business Undergraduate Advising Center for required forms.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4923 Leading Organizations and Making Decisions**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and MGT 3013 or permission of instructor.

This is an advanced course focusing on traditional and contemporary perspectives on leadership. Because the leader is seen as a decision maker, individual and organizational issues surrounding effective decision making are also addressed in detail.

**4933 Internship in Management**

3 hours credit. Prerequisites: MGT 3003, 2.5 grade point average, 9 semester credit hours of management courses, and permission in writing from the instructor, the Department Chair, and the Dean of the College of Business. See the College of Business Undergraduate Advising Center for additional requirements and required forms.

The opportunity for managerial work experience. Requires a semester-long experience in private business or a public agency and a written component. Opportunities and output requirements are developed in consultation with a faculty advisor and the Department Chair and require approval of both. Internship may be repeated once (for a total of 6 semester credit hours), provided the internships are with different organizations.

**4943 Managing Effective Teams and Resolving Conflict**

(3-0) 3 hours credit. Prerequisites: MGT 3003, MGT 3013 and MGT 3023 or consent of instructor.

This is an advanced course focused on building the skills necessary to work effectively as part of a team. Conflict resolution techniques and effective negotiation techniques are examined in detail.

**4953 Special Studies in Management**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when the topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4993 Honors Thesis**

3 hours credit. Prerequisite: MGT 3003. Enrollment limited to students applying for Honors in Management (see page 60).

Supervised research and preparation of an honors thesis. May be repeated once for credit with advisor's approval.

## **COURSE DESCRIPTIONS BUSINESS LAW (BLW)**

### **3003 Business in Its Legal Environment**

(3-0) 3 hours credit.

Study of the legal environment of business, including the social and ethical responsibility of business, legal process concepts, case law and legislative jurisprudence, and constitutional perspectives of doing business. Credit cannot be earned for both BLW 3003 and BLW 3013.

### **3013 Business Law**

(3-0) 3 hours credit. Prerequisite: 60 hours of college credit or consent of instructor.

Legal analysis of contemporary environment of business law including the common law, legal reasoning, court systems and procedures, constitutional law, torts, contracts and corresponding areas of Article 2 of the Uniform Commercial Code, agency, property, bailment, international law, and related jurisprudential topics in light of social, ethical, political, economic, and global perspectives. Credit cannot be earned for both BLW 3013 and BLW 3003.

### **3023 Business Organizations and Commercial Law**

(3-0) 3 hours credit. Prerequisite: BLW 3013 or the equivalent.

A detailed legal analysis of the Uniform Commercial Code, including sales, commercial paper, bank deposits and collections, electronic transfer funds, letters of credit, secured transactions, and creditors' remedies. This course may also include a discussion of the Bankruptcy Act, the legal analysis of the Uniform Partnership Act, and the Business Corporations Act.

### **3523 Real Estate Law**

(3-0) 3 hours credit. Prerequisite: BLW 3013 or the equivalent, or enrollment as a major in the B.A.A.S. degree in Construction Management.

Legal environment of real property ownership and transfer and legal brokerage; estates in land; sales contracts; mortgage transactions; title conveyances; landlord and tenant; restrictions and zoning; eminent domain; federal, state, and local laws governing housing discrimination; and equal opportunity and community reinvestment.

### **4153 Tourism Law**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and BLW 3013 or the equivalent.

An investigation of the legal aspects of the accommodation, attraction, destination management organization, restaurant, and transportation industries.

### **4913 Independent Study**

3 hours credit. Prerequisites: MGT 3003 and permission in writing from the instructor, the Department Chair, and the Dean of the College of Business. See the College of Business Undergraduate Advising Center for required forms.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

### **4953 Special Studies in Business Law**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when the topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

## Army Reserve Officer Training Corps Program

To obtain a commission as an officer in the United States Army, students must complete either the Four-Year Program or the Two-Year Program in Military Science and be a full-time student pursuing a baccalaureate or graduate degree in one of the disciplines offered by UTSA.

Credit for military science courses may be applied toward a baccalaureate degree, but mainly as free electives. Each major stipulates a maximum number of hours of military science that may be applied toward the degree requirements. Credit for military science courses awarded by another accredited college or university is accepted by UTSA as credit, within the same limitations as military science credit earned at UTSA.

**Four-Year Program:** This program consists of 18 semester credit hours of military science courses and is offered in two parts: a Basic Course and an Advanced Course. A formal application is not required for students entering the Four-Year Program. Registration is accomplished at the same time and in the same manner as for other UTSA courses. The Basic Course consists of the first- and second-year courses: MSC 1011, 1021, 2012, and 2022, which are designed for beginning students who want to qualify for entry into the Advanced Course and those who may want to try military science without obligations. A number of popular and challenging extracurricular activities are associated with these courses. Students can qualify for entry into the Advanced Course by completing the Leader's Training Course, the paid summer internship.

The Basic Course requirements may be compressed into one academic year. The Basic Course may be waived without credit for students with prior military service and/or junior ROTC.

**Two-Year Program:** This program consists of the Advanced Course, which incorporates the last two years of the Four-Year Program. The Advanced Course consists of MSC 3013, 3023, 4013, and 4023. It is open only to students who have completed the Basic Course or earned placement credit. The Advanced Course is designed to qualify a student for a commission as an officer in the United States Army. Students must complete all military science courses numbered greater than 3000 and the five-week paid National Advanced Leadership Camp in the summer, usually between the junior and senior years. Courses must be taken in sequence unless otherwise approved by the professor of military science. Students receive a stipend each month during the school year.

The Army ROTC program offers competitive scholarships for up to four years to select students. These scholarships provide tuition, fees, and a subsistence allowance.

Participation in a leadership laboratory is required in conjunction with all courses. The laboratory provides the opportunity to acquire leadership skills and experiences that will enhance a student's ability to perform as an Army officer.

All students enrolled in ROTC classes will be required to participate in physical fitness training and to take the Army Physical Fitness Test each semester.

Students enrolled in Army ROTC courses are furnished, free of charge, complete uniforms, texts, and necessary equipment.

The program requirements for the Basic and Advanced Courses are as follows:

A. Basic Course:

MSC	1011	Introduction to Army ROTC
MSC	1021	Introduction to Leadership
MSC	2012	Self/Team Development
MSC	2022	Individual/Team Military Tactics

B. Advanced Course:

MSC	3013	Leading Small Organizations I
MSC	3023	Leading Small Organizations II
MSC	4013	Leadership Challenges and Goal-Setting
MSC	4023	Transition to Lieutenant

## Minor in Military Management and Leadership

This minor is designed to enhance the military science (Army Reserve Officer's Training Corps) curriculum. A Minor in Military Management and Leadership (MSL) will develop a well-rounded perspective of a future Army officer's role and decision making ability in political, sociological, historical, and geographical arenas.

All students pursuing the minor must complete 21 semester credit hours.

A. 12 semester credit hours of core military science and leadership coursework:

MSC	3013	Leading Small Organizations I
MSC	3023	Leading Small Organization II
MSC	4013	Leadership Challenges and Goal Setting
MSC	4023	Transition to Lieutenant

B. 9 semester credit hours of electives chosen from the following:

GRG	3643	Political Geography
HIS	2543	Introduction to Islamic Civilization
HIS	2553	Introduction to East Asian Civilization
HIS	3543	History of Modern Warfare
HIS	3823	History of American Foreign Relations
MGT	3013	Introduction to Organization Theory, Behavior, and Management
POL	3433	Governments and Politics of Southeast Asia
POL	3463	Politics of the Third World
POL	3493	Politics of the Middle East
POL	3523	Force in International Politics
POL	3563	Current Issues in World Politics
SOC	4063	Civil-Military Relations

### COURSE DESCRIPTIONS MILITARY SCIENCE (MSC)

#### 1011 Introduction to Army ROTC

(1-2) 1 hour credit.

Increase self-confidence through team study and activities in basic drill, physical fitness, rappelling, leadership reaction course, first aid, making presentations, and basic marksmanship. Learn fundamental concepts of professional leadership in classroom and outdoor laboratory environments. One hour and a required leadership laboratory plus participation in a one-hour session for physical fitness.

#### 1021 Introduction to Leadership

(1-2) 1 hour credit.

Learn and apply principles of effective leading. Reinforce self-confidence through participation in physically and mentally challenging exercises with upper-division ROTC students. Develop communication skills to improve individual performance and group interaction. Relate organizational ethical values to leadership effectiveness. One hour and a required leadership laboratory plus participation in a one-hour session for physical fitness.

#### 2012 Self/Team Development

(2-2) 2 hours credit.

Learn and apply ethics-based skills that develop individual abilities and contribute to building effective teams of people. Develop skills in oral presentations, concise writing, event planning, coordinating group efforts, advanced

first aid, land navigation, and basic military tactics. Learn fundamentals of the ROTC's Leadership Development Program. Two hours and a required leadership laboratory plus required participation in two one-hour sessions for physical fitness.

**2022 Individual/Team Military Tactics**

(2-2) 2 hours credit.

Introduction to individual and team aspects of military tactics in small unit operations. Includes use of radio communications, making safety assessments, movement techniques, planning for team safety and security, and methods of pre-execution checks. Practical exercises with upper-division ROTC students. Learn techniques for training others as an aspect of continued leadership development. Two hours and a required leadership laboratory plus required participation in two one-hour sessions for physical fitness.

**3013 Leading Small Organizations I**

(3-2) 3 hours credit. Prerequisites: MSC 1011, MSC 1021, MSC 2012, and MSC 2022, or consent of instructor.

Series of practical opportunities to lead small groups, receive personal assessments and encouragement, and lead in increasingly complex situations. Uses small unit tactics and opportunities to plan and conduct training for lower-division students both to develop such skills and as vehicles for practicing leading. Three hours and a required leadership laboratory plus required participation in three one-hour sessions for physical fitness. Participation in one weekend exercise is required; one or two optional weekend exercises may also be offered.

**3023 Leading Small Organizations II**

(3-2) 3 hours credit. Prerequisite: MSC 3013 or consent of instructor.

Continues methodology of MSC 3013. Students will analyze tasks and prepare written or oral guidance for team members to accomplish tasks. Students will also delegate tasks and supervise; plan for and adapt to the unexpected in organizations under stress; examine and apply lessons from leadership case studies; and examine the importance of ethical decision making in setting a positive climate that enhances team performance. Three hours and a required leadership laboratory plus required participation in three one-hour sessions for physical fitness. Participation in one weekend exercise is required; one or two optional weekend exercises may also be offered.

**4013 Leadership Challenges and Goal-Setting**

(3-2) 3 hours credit. Prerequisite: MSC 3023 or consent of instructor.

Students will plan, conduct, and evaluate activities of the ROTC cadet organization; articulate goals and put plans into action; assess organizational cohesion and develop strategies to improve it; develop confidence in leadership skills and resource management; learn and apply various Army policies and programs. Three hours and a required leadership laboratory plus required participation in three one-hour sessions for physical fitness. Participation in one weekend exercise is required; one or two optional weekend exercises may also be offered.

**4023 Transition to Lieutenant**

(3-2) 3 hours credit. Prerequisite: MSC 4013 or consent of instructor.

Continues the methodology from MSC 4013. Students will identify and resolve ethical dilemmas; refine counseling and motivating techniques; examine tradition and law as related to leadership as an Army officer; prepare for a future as a successful Army lieutenant. Three hours and a required leadership laboratory plus required participation in three one-hour sessions for physical fitness. Participation in one weekend exercise is required; one or two optional weekend exercises may also be offered.

**4033 Practical Leadership**

(3-0) 3 hours credit. Prerequisite: MSC 4023 or consent of instructor.

Performance-oriented instruction and preparation for commissioning. Additional development of students' ability to plan, coordinate, and direct the efforts of Army small-unit organizations in the execution of tactical missions; planning and execution of leadership laboratories.

## DEPARTMENT OF MANAGEMENT SCIENCE AND STATISTICS

The disciplines of Management Science and Statistics are integral to modern decision-making processes. These interdisciplinary fields emphasize the use of quantitative methods and computers for analyzing, understanding, visualizing, and interpreting data. Management Science seeks to provide a rational basis for decision analysis across a broad spectrum of business functions such as production/operations, marketing, finance, human resources, project management, logistics, and supply chain management. Statistical methods provide analytical tools for research in high-technology and biomedical industries, insurance, and government agencies. Both disciplines offer the opportunity to pursue advanced graduate studies. The Department of Management Science and Statistics offers a Bachelor of Business Administration Degree in Management Science, Bachelor of Business Administration Degree in Actuarial Science, and a Bachelor of Science Degree in Statistics. The department also offers minors in Management Science and Applied Statistics, which are open to all majors in the University.

### DEPARTMENT HONORS

The Department of Management Science and Statistics offers the opportunity for certain of its outstanding students to achieve the designation of Honors in Major and provides the opportunity for advanced study under close faculty supervision.

Selection for Honors designation is based on the student's academic performance and recommendation by the Department Undergraduate Program Committee (UPC) in consultation with the faculty of the student's major discipline. To be eligible for the designation, students must have a minimum overall grade point average of 3.0 at UTSA and a minimum grade point average of 3.5 in their major at UTSA. To enroll in honors thesis courses and to graduate with the honors designation, these minimum grade point averages must be maintained. Students applying for Honors in Major are expected to enroll in the appropriate honors thesis course during their final two semesters. The completed honors thesis must be approved by the supervising faculty sponsor from the student's discipline and the UPC. Students interested in this program should contact the Department of Management Science and Statistics office for additional information. Department honors can be attained independent of, or in addition to, University Honors.

### Bachelor of Business Administration Degree in Management Science

In general, the discipline of Management Science focuses on the development and application of scientific and mathematical modeling to aid organizations in all kinds of decision-making situations. The management science curriculum is designed to provide students with the analytical tools and computing technologies necessary for rational decision making. While the major is designed to teach students how to use their problem solving abilities in a diversity of areas, the variety of courses provides students with an opportunity to specialize in professional fields such as operations and logistics. Since management science majors study a wide variety of topics dealing with daily activities and problems faced by managers in today's ever-changing world, many career tracks are available to them. The minimum number of semester credit hours required for the Bachelor of Business Administration in Management Science is 120.

All candidates seeking this degree must fulfill the Core Curriculum requirements, the Common Body of Knowledge (CBK) requirements, and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Business Administration degree in Management Science must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

<b>Core Curriculum Requirements</b>	<b>Courses that Satisfy Core Curriculum and Degree Requirements</b>
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MTC 1033 Algebra with Calculus for Business <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) ECO 2013 Introductory Macroeconomics
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

### Common Body of Knowledge (CBK)

All students seeking a B.B.A. degree in the College of Business must complete the following Common Body of Knowledge (CBK) courses in addition to the Core Curriculum.

<b>Course or Requirement</b>	<b>Semester Credit Hours</b>
ACC 2013 Principles of Accounting I	3
ACC 2033 Principles of Accounting II	3
BLW 3013 Business Law	3
COM 1053 Business and Professional Speech	3
ECO 2013 Introductory Macroeconomics (Domain II)	3
ECO 2023 Introductory Microeconomics	3
FIN 3013 Principles of Business Finance	3
GBA 2013 Social and Ethical Issues in Business	3
IS 1403 Business Information Systems Fluency	3
IS 3003 Principles of Information Systems for Management	3

MGT	3003	Business Communication and Professional Development	3
MGT	3013	Introduction to Organization Theory, Behavior, and Management	3
MGT	4893	Management Strategy and Policy (taken in semester of graduation)	3
MKT	3013	Principles of Marketing	3
MS	1013	Quantitative Methods for Business and Economics (Actuarial Science majors must take STA 3513 in lieu of MS 1013)	3
MS	3033	Management Science and Production Management	3
MTC	1033	Algebra with Calculus for Business (Domain I) (Actuarial Science majors must take MAT 1214 in lieu of MTC 1033)	3

In addition to the Core Curriculum requirements and requirements from the College of Business Common Body of Knowledge (CBK), all candidates for the degree must complete the following degree requirements.

### Degree Requirements

A. 9 semester credit hours of required management science courses:

MS	3063	Decision Support Systems
MS	3403	Logistics Management
MS	4343	Production/Operations Management

B. 15 semester credit hours of business upper-division electives chosen from the following:

ECO	3123	Forecasting Techniques in Business and Economics
FIN	4873	Computer Modeling of Financial Applications
IS	4153	Electronic Commerce
IS	4203	Business Process Re-engineering
MKT	3083	Marketing Research
MS	3313	Statistical Applications in Business
MS	3413	Purchasing and Inventory Management
MS	4323	Simulation Applications in Business
MS	4333	Project Management
MS	4353	Service Operations Management
MS	4363	Quality Management and Control
MS	4373	Applied Computer Modeling in Logistics
MS	4383	Applied Forecasting in Operations
MS	4543	Supply Chain Management
MS	4583	Current Technology: Issues for Business
MS	4913	Independent Study in Management Science
MS	4933	Internship in Management Science
MS	4953	Special Studies in Management Science
STA	4133	Introductory Data Analysis with Statistical Software
STA	4803	Statistical Quality Control

To substitute another course for one of the above electives, a student should submit a petition to the College of Business Undergraduate Advising Center and receive approval from any management science full-time faculty member before registering for the course.

C. 9 semester credit hours of electives taken outside the College of Business.

## Minor in Management Science

The Minor in Management Science is open to all majors in the University. All students pursuing the minor must complete 18 semester credit hours.

A. 6 semester credit hours of the following courses:

MS	3033	Management Science and Production Management
MS	4343	Production/Operations Management

B. 12 semester credit hours of electives chosen from the following:

ECO	3123	Forecasting Techniques in Business and Economics
FIN	4873	Computer Modeling of Financial Applications
IS	4153	Electronic Commerce
IS	4203	Business Process Re-engineering
MKT	3083	Marketing Research
MS	1013	Quantitative Methods for Business and Economics
MS	3063	Decision Support Systems for Management
MS	3313	Statistical Applications in Business
MS	3403	Logistics Management
MS	3413	Purchasing and Inventory Management
MS	4323	Simulation Applications in Business
MS	4333	Project Management
MS	4353	Service Operations Management
MS	4363	Quality Management and Control
MS	4373	Applied Computer Modeling in Logistics
MS	4383	Applied Forecasting in Operations
MS	4543	Supply Chain Management
MS	4583	Current Technology: Issues for Business
MS	4913	Independent Study in Management Science
MS	4933	Internship in Management Science
MS	4953	Special Studies in Management Science
STA	4133	Introductory Data Analysis with Statistical Software
STA	4803	Statistical Quality Control

To declare a Minor in Management Science, obtain advice, and seek approval of substitutions for course requirements, students must consult the College of Business Undergraduate Advising Center.

## Bachelor of Business Administration Degree in Actuarial Science

Actuarial Science is a discipline that uses mathematical and statistical models to solve problems in insurance and finance. Students will take courses in mathematics, statistics, economics, and finance as part of the degree program. There is an increasing need for trained actuaries in the insurance industry. The Bachelor of Business Administration (B.B.A.) in Actuarial Science provides students with the quantitative and business skills to pursue these opportunities and prepare them for a career as an actuary. The minimum number of semester credit hours for the B.B.A. degree in Actuarial Science is 127.

All candidates seeking this degree must fulfill the Core Curriculum requirements, the Common Body of Knowledge requirements, and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Business Administration degree in Actuarial Science must fulfill University Core Curriculum requirements. Some of the courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for the degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

<b>Core Curriculum Requirements</b>	<b>Courses that Satisfy Core Curriculum and Degree Requirements</b>
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MTC 1033 Algebra with Calculus for Business This requirement can be satisfied with MAT 1214 for Actuarial Science and Statistics majors (Students not prepared to begin MAT 1214 must take MAT 1093 Precalculus.) <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) ECO 2013 Introductory Macroeconomics
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

### Common Body of Knowledge (CBK)

All students seeking a B.B.A. degree in the College of Business must complete the following Common Body of Knowledge (CBK) courses in addition to the Core Curriculum.

<b>Course or Requirement</b>	<b>Semester Credit Hours</b>
ACC 2013 Principles of Accounting I	3
ACC 2033 Principles of Accounting II	3
BLW 3013 Business Law	3
COM 1053 Business and Professional Speech	3
ECO 2013 Introductory Macroeconomics (Domain II)	3
ECO 2023 Introductory Microeconomics	3

FIN	3013	Principles of Business Finance	3
GBA	2013	Social and Ethical Issues in Business	3
IS	1403	Business Information Systems Fluency	3
IS	3003	Principles of Information Systems for Management	3
MGT	3003	Business Communication and Professional Development	3
MGT	3013	Introduction to Organization Theory, Behavior, and Management	3
MGT	4893	Management Strategy and Policy (taken in semester of graduation)	3
MKT	3013	Principles of Marketing	3
MS	1013	Quantitative Methods for Business and Economics (Actuarial Science majors must take STA 3513 in lieu of MS 1013)	3
MS	3033	Management Science and Production Management	3
MTC	1033	Algebra with Calculus for Business (Domain I) (Actuarial Science majors must take MAT 1214 in lieu of MTC 1033)	3

In addition to the Core Curriculum requirements and requirements from the College of Business Common Body of Knowledge (CBK), all candidates for the degree must complete the following degree requirements.

### Degree Requirements

A. 21 semester credit hours of required Mathematics and Statistics courses:

MAT	1223	Calculus II
MAT	2213	Calculus III
MAT	2233	Linear Algebra
STA	3523	Statistical Methods
STA	4643	Introduction to Stochastic Processes
STA	4723	Design and Analysis of Experiments
STA	4903	Survival Analysis

B. 12 semester credit hours of required Business courses:

FIN	4523	Introduction to Risk Management
FIN	4813	Property-Liability Insurance Finance
FIN	4823	Life and Health Insurance Finance
MS	4323	Simulation Applications in Business

C. 6 semester credit hours of upper-division electives chosen from the following:

ECO	3113	Introduction to Mathematical Economics
ECO	3123	Forecasting Techniques in Business and Economics
FIN	4873	Computer Modeling of Financial Applications
STA	4713	Applied Regression Analysis

### Bachelor of Science Degree in Statistics

Statistics is a science that deals with principles and procedures for obtaining and processing information in order to make decisions in the face of uncertainty. In particular, it deals with collection, organization, analysis, and interpretation of numerical information to answer questions in almost every aspect of modern day life. Statistical methods are used to address complex questions common in business, government, and science. Employers such as research divisions in pharmaceutical companies, clinical research units at medical centers, quality control or reliability departments in manufacturing companies, corporate planning and financial analysis units, and government agencies require persons with advanced quantitative skills. The Bachelor of Science Degree in Statistics provides students with access to such skills preparing them for careers as statistical analysts or for further graduate academic training. The minimum number of semester credit hours required for the Bachelor of Science degree in Statistics is 126.

**Core Curriculum requirements:** Students seeking the Bachelor of Science Degree in Statistics must fulfill University Core Curriculum requirements. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

<b>Core Curriculum Requirements</b>	<b>Courses that Satisfy Core Curriculum and Degree Requirements</b>
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) This requirement can be satisfied with MAT 1214 for Statistics majors (Students not prepared to begin MAT 1214 must take MAT 1093 Precalculus.) <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) ECO 2013 Introductory Macroeconomics
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

### Degree Requirements

A. 31-32 semester credit hours of required courses in the computational, mathematical, or statistical sciences:

CS	1073	Introductory Computer Programming for Scientific Applications or
CS	1713, 1711	Introduction to Computer Science and Recitation or
CS	2073	Computer Programming with Engineering Applications
MAT	1214	Calculus I
MAT	1223	Calculus II

MAT	2213	Calculus III
MAT	2233	Linear Algebra
MAT	3013	Foundations of Mathematics
MAT	3213	Foundations of Analysis
MAT	4213	Real Analysis I
STA	3513	Probability and Statistics
STA	3523	Statistical Methods

B. 18 semester credit hours in the major:

MAT	3633	Numerical Analysis
STA	3013	Multivariate Analysis for the Life and Social Sciences
STA	3433	Applied Nonparametric Statistics
STA	4133	Introductory Data Analysis with Statistical Software
STA	4713	Applied Regression Analysis
STA	4723	Design and Analysis of Experiments

C. 35–36 semester credit hours of electives:

3 semester credit hours of upper-division electives in statistics and 3 additional semester credit hours of upper-division electives in Mathematics, Statistics, or other appropriate areas approved by any Statistics full-time faculty member.

29–30 semester credit hours of free electives, such as courses in Business, Health, Engineering, or Psychology where Statistics is actively applied and properly practiced

### Minor in Applied Statistics

The Minor in Applied Statistics is open to all majors in the University. All students pursuing the Minor in Applied Statistics must complete 18 semester credit hours.

A. 6 semester credit hours of required courses from one of the following four sets of sequences:

- |     |      |  |
|-----|------|--|
| STA | 1053 | Basic Statistics   |
|     |      | or   |
| STA | 2073 | Statistics for Psychology                                |
| STA | 1993 | Statistical Methods for the Life and the Social Sciences |
- |     |      |  |
|-----|------|--|
| STA | 2073 | Statistics for Psychology              |
| PSY | 3013 | Psychological Measurement              |
|     |      | or                                     |
| POL | 2703 | Scope and Methods in Political Science |
- |    |      |   |
|----|------|---|
| MS | 1013 | Quantitative Methods for Business and Economics |
| MS | 3313 | Statistical Applications in Business            |
- |     |      |  |
|-----|------|--|
| STA | 3513 | Probability and Statistics                               |
|     |      | or   |
| STA | 2303 | Applied Probability and Statistics for Engineers         |
|     |      | or   |
| STA | 3533 | Probability and Random Processes                         |
|     |      | or   |
| STA | 3543 | Statistics and Experimental Designs for Computer Science |
| STA | 3523 | Statistical Methods                                      |

B. 9 semester credit hours selected from the following list of courses as recommended by the undergraduate advisor:

STA	3013	Multivariate Analysis for the Life and Social Sciences
STA	3433	Applied Nonparametric Statistics
STA	4133	Introductory Data Analysis with Statistical Software
STA	4713	Applied Regression Analysis
STA	4723	Design and Analysis of Experiments
STA	4803	Statistical Quality Control
		or
MAT	4803	Statistical Quality Control

C. 3 semester credit hours from the following list of courses as recommended by the undergraduate advisor:

ECO	3123	Forecasting Techniques in Business and Economics
MAT	3653	Stochastic Calculus
MAT	4313	Applied Combinatorics
ME	4723	Reliability and Quality Control in Engineering Design
MS	4363	Quality Management and Control
STA	3313	Introduction to Sample Survey Theory and Methods
STA	3813	Discrete Data Analysis
STA	4903	Survival Analysis
STA	4953	Special Studies in Statistics

To declare a Minor in Applied Statistics, obtain advice, and seek approval of substitutions for course requirements, students must consult the College of Business Undergraduate Advising Center.

## COURSE DESCRIPTIONS MANAGEMENT SCIENCE (MS)

### 1013 Quantitative Methods for Business and Economics

(3-0) 3 hours credit. Prerequisites: MTC 1033 and IS 1403.

A survey of basic statistical techniques for business and economics. As part of the business core, the course focuses on the applications of primary statistical concepts in a business-oriented environment. Various statistical and mathematical techniques will be presented to assist in solving problems encountered by corporate managers. Topics include but are not limited to descriptive statistics, discrete and continuous probability functions, sampling, experimental design, interval estimation, hypothesis testing, test of independence, and regression analysis. (Formerly GBA 1013 and STA 1063. Credit cannot be earned for both MS 1013 and GBA 1013 or STA 1063.)

### 3033 Management Science and Production Management

(3-0) 3 hours credit. Prerequisites: MTC 1033 and MS 1013.

An introductory course in management science and production operations management. This course emphasizes model building as a foundation for rational decision making and problem solving. Techniques such as linear programming, forecasting, decision theory, inventory models, project management, and simulation are covered. Computer software is used to apply these techniques in the analysis of a wide variety of decision problems. (Formerly MGT 3033. Credit cannot be earned for both MS 3033 and MGT 3033.)

### 3063 Decision Support Systems

(3-0) 3 hours credit.

A study of the modern computer hardware and software currently used in managerial and personal/professional decision processes. Topics include expert systems, artificial intelligence, and communication networks. Emphasis is given to the concept of decision support systems and to hands-on experience using techniques and microcomputer tools to build systems that can support decision processes. (Formerly MGT 3063. Credit cannot be earned for both MS 3063 and MGT 3063.)

**3313 Statistical Applications in Business**

(3-0) 3 hours credit.

Emphasizes application of statistics in problem solving situations involving management, marketing, human resources, finance, and operations management. Useful techniques include analysis of variance, simple and multiple regression, chi-square distribution, nonparametric tests, times series and forecasting, and quality control. Students use computer software such as SPSS or SAS in their analyses. (Formerly MGT 3313. Credit cannot be earned for both MS 3313 and MGT 3313.)

**3403 Logistics Management**

(3-0) 3 hours credit.

The study of logistic functions of business involved in the movement and storage of supplies, work-in-progress, and finished goods. The trade-off between cost and service and the purchase and supply of raw materials; the warehousing and control of inventory; industrial packaging; materials handling within warehouses; and the distribution of finished goods to customers required to minimize costs, maximize profits or increase customer service levels. The concept, value, and current progress of supply chain management, and the logistics management in the (Internet) electronic commerce era will also be addressed.

**3413 Purchasing and Inventory Management**

(3-0) 3 hours credit.

Explores the industrial purchasing cycle for materials acquisition and management. Determination of requirements, supplier qualifications, appraisals, source selection, buying practices, value analysis, policies, ethics, and international purchasing. Inventory control concepts, techniques, and strategies for effective integration with basic finance, marketing, and manufacturing objectives. Models for dependent and independent demand inventory systems. Material requirements planning systems, distribution requirements, planning techniques, and classical reorder point inventory models.

**4323 Simulation Applications in Business**

(3-0) 3 hours credit. Prerequisite: MGT 3003.

A study of the techniques for modeling and analysis of business processes using computer simulation and animation. Selected example applications from supply chain management, financial, marketing, and operations functions. Emphasis on the use of computer simulation in support of the management decision process. (Formerly MGT 4323. Credit cannot be earned for both MS 4323 and MGT 4323.)

**4333 Project Management**

(3-0) 3 hours credit. Prerequisite: MGT 3003.

Practical examination of how projects are managed from start to finish including specific emphasis on planning and controlling to avoid common pitfalls and managing risk. Design, establishment, and execution of project management plans and procurement processes. Identifying needs, defining requirements, integrated cost and schedule control, scheduling, resource allocations, and configuration management.

**4343 Production/Operations Management**

(3-0) 3 hours credit. Prerequisite: MGT 3003.

A study of the production and operations management function in business. Review of the methods required for design, operation, and improvement of the systems that create products or services. Traditional topics in manufacturing and service organizations are investigated including an introduction to supply chain management concepts. (Formerly MGT 4343. Credit cannot be earned for both MS 4343 and MGT 4343.)

**4353 Service Operations Management**

(3-0) 3 hours credit. Prerequisite: MGT 3003.

The operations methods, practices, and tools required for managing service industries. Emphasis of decision analysis and actions is focused on the customer. The role of services in society, information technologies, and the uniqueness of service delivery systems are stressed.

**4363 Quality Management and Control**

(3-0) 3 hours credit. Prerequisite: MGT 3003.

Investigates the fundamental nature of quality and its implications for business. Topics include statistical methods for quality improvement in manufacturing and service operations. Emphasis given to both the technical and managerial issues in understanding and implementing quality as a component for success in today's global business environment. (Formerly MGT 4363. Credit cannot be earned for both MS 4363 and MGT 4363.)

**4373 Applied Computer Modeling in Logistics**

(3-0) 3 hours credit. Prerequisite: MGT 3003.

This course is the study of current computer tools available to the execution, planning, and strategy decisions in logistics and transportation management. Individual software modules related to communications (EDI & Internet), demand management and forecasting, master production scheduling, DRP, MRP & MRP II, inventory policy decisions, supply chain network and facility locations, warehouse storage and material handling, transportation rating and costing, vehicle routing and scheduling are the core subjects of discussions. When available, an integrated software approach such as supply chain management (SCM) and enterprise resource planning (ERP) by SAP, Oracle or I2 will be adopted. The goal of the course is to prepare the students to be capable of making effective logistics decisions recognizing the rise of e-commerce and integrated corporate information systems.

**4383 Applied Forecasting in Operations**

(3-0) 3 hours credit. Prerequisite: MGT 3003.

Introduces modern and practical methods for operations planning and decision making. Short-term forecasting of demand, personnel requirements, costs and revenues, raw material needs, and desired inventory levels. Technological and environmental forecasting. Monitoring: automatic procedures such as tracking signals and judgmental procedures such as decomposition methods.

**4543 Supply Chain Management**

(3-0) 3 hours credit. Prerequisite: MGT 3003.

Principles, techniques and practices of supply chain management. The focus is on the coordination and information management that integrates supplier selection, purchasing, transportation, inventory and warehousing, production and distribution from procurement of raw material to customer satisfaction. Decision models and techniques in facility location, production, inventory, and transportation are presented. Currently available software will be surveyed and cases of successful implementations will be analyzed.

**4583 Current Technology: Issues for Business**

(3-0) 3 hours credit. Prerequisite: MGT 3003.

Survey of state-of-the-art technology in today's organizations from a sociotechnical perspective. Topics include manufacturing systems, expert systems, artificial intelligence, office automation, and microcomputer systems and networks. Emphasis is on examining the social dimensions and effects of technologies and on exploring future trends and consequences. (Formerly MGT 4583. Credit cannot be earned for both MS 4583 and MGT 4583.)

**4913 Independent Study in Management Science**

3 hours credit. Prerequisites: MGT 3003 and permission in writing from the instructor, the Department Chair, and the Dean of the College of Business. See the College of Business Undergraduate Advising Center for required forms and additional requirements.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4933 Internship in Management Science**

3 hours credit. Prerequisites: MGT 3003, 2.5 grade point average, and permission in writing from the instructor, the Department Chair, and the Dean of the College of Business. See the College of Business Undergraduate Advising Center for required forms and additional requirements.

Supervised full- or part-time work experience in management science. Offers opportunities for applying management science in private businesses or public agencies. May be repeated for credit, but not more than 6 semester credit hours will apply to a bachelor's degree.

**4953 Special Studies in Management Science**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when the topics vary.

**4993 Honors Thesis**

(3-0) 3 hours credit. Prerequisite: MGT 3003. Enrollment limited to students applying for Honors in Management Science and Statistics (see page 78).

Supervised research and preparation of an honors thesis. May be repeated once for credit with advisor's approval.

## COURSE DESCRIPTIONS STATISTICS (STA)

**1043 Introduction to Statistical Reasoning**

(3-0) 3 hours credit. Prerequisite: Satisfactory performance on placement examination.

Intended primarily for liberal arts majors, this course provides an overview of statistical methods useful for judgement and decision making under conditions of uncertainty. The emphasis of the course will be on using statistical reasoning to gain insight and draw conclusions from observations. The common pitfalls of statistical studies and common myths about the fallacies of inference will be discussed. Topics may include data analysis, inference, correlation, and regression.

**1053 Basic Statistics**

(3-0) 3 hours credit. Prerequisite: Satisfactory performance on placement examination.

Descriptive statistics; histograms; measures of location and dispersion; elementary probability theory; random variables; binomial and normal distributions; interval estimation and hypothesis testing; simple linear regression and correlation; and applications of the chi-square distribution. [TCCN: MATH 1342.]

**1993 Statistical Methods for the Life and Social Sciences**

(3-0) 3 hours credit. Prerequisites: STA 1053 or STA 2073 and MTC 1023 or MTC 1033 or an equivalent course.

Point estimator properties, inference about the means and variances of two or more populations, categorical data analysis, linear regression, analysis of variance, and nonparametric tests. Open to students of all disciplines.

**2073 Statistics for Psychology**

(3-0) 3 hours credit. Prerequisites: MTC 1023, MTC 1033, or MTC 1073, and one psychology course.

The use of statistics in psychological research includes: elementary probability theory; descriptive statistics, including histograms, graphing, and measures of central tendency and dispersion; correlational techniques; binomial and normal distributions; and inferential statistics, including hypothesis testing, interval estimation, and analysis of variance. (Formerly STA 1073. Credit cannot be earned for both STA 2073 and STA 1073.)

**2303 Applied Probability and Statistics for Engineers**

(3-0) 3 hours credit. Prerequisite: MAT 1223.

Fundamental concepts of probability and statistics with practical applications to engineering problems. Emphasis on sampling, statistical inference, measurement error analysis and quantifying risk, safety and reliability in engineering design.

**3013 Multivariate Analysis for the Life and Social Sciences**

(3-0) 3 hours credit. Prerequisite: STA 1993, STA 3513, or an equivalent.

Linear algebra preliminaries, the multivariate normal distribution, tests on means, discriminant analysis, cluster analysis, principal components, and factor analysis. Use of computer library programs. Open to students of all disciplines.

**3313 Introduction to Sample Survey Theory and Methods**

(3-0) 3 hours credit. Prerequisite: One of the following: MS 3313, PSY 3013, STA 1993, STA 2303, STA 3513, or STA 3543.

Simple random sampling, stratified random sampling, ratio and regression estimates, systematic sampling, cluster sampling, unequal probability sampling, two-stage and multistage sampling, and nonsampling errors.

**3433 Applied Nonparametric Statistics**

(3-0) 3 hours credit. Prerequisite: One of the following: MS 3313, PSY 3013, STA 1993, STA 2303, STA 3523, or STA 3543.

Tests of location, goodness-of-fit tests, rank tests, tests based on nominal and ordinal data for both related and independent samples, and measures of association.

**3513 Probability and Statistics**

(3-0) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in MAT 2213.

Axioms of probability, functions of random variables, important discrete and continuous distributions, sampling distributions, and Central Limit Theorem.

**3523 Statistical Methods**

(3-0) 3 hours credit. Prerequisite: STA 3513, STA 3533, or an equivalent.

Point and interval estimation, hypothesis testing, and applied topics which may include chi-square tests, linear regression, and analysis of variance.

**3533 Probability and Random Processes**

(3-0) 3 hours credit. Prerequisites: EE 3423 and either EGR 2323 or MAT 3253.

Probability, random variables, distribution and density functions, limit theorems, random processes, correlation functions, power spectra, and response of linear systems to random inputs.

**3543 Statistics and Experimental Design for Computer Science**

(3-0) 3 hours credit. Prerequisite: MAT 2213.

Elementary probability, random variables, binomial, Poisson, normal and exponential distributions, elementary queuing theory, sampling distributions, point and interval estimation, hypothesis tests, principles of experimentation.

**3813 Discrete Data Analysis**

(3-0) 3 hours credit. Prerequisite: STA 1993 or STA 3523.

Methods especially useful for problems arising in the life and social sciences: analysis of count data, contingency tables, and Probit and Logit analysis.

**4133 Introductory Data Analysis with Statistical Software**

(3-0) 3 hours credit. Prerequisite: One of the following: MS 3313, PSY 3013, STA 1993, STA 2303, STA 3523, or STA 3543.

This course introduces statistical analysis of data sets using modern statistical packages such as SAS, SPSS, JMP, or EXCEL. Examples will be drawn from regression analysis, analysis of variance, and multivariate methods.

**4643 Introduction to Stochastic Processes**

(3-0) 3 hours credit. Prerequisite: STA 3513.

Probability models, Poisson processes, finite Markov chains, including transition probabilities, classification of states, limit theorems, queuing theory, and birth and death processes.

**4713 Applied Regression Analysis**

(3-0) 3 hours credit. Prerequisite: One of the following: MS 3313, PSY 3013, STA 1993, STA 2303, STA 3523, or STA 3543.

An introduction to regression analysis, with emphasis on practical aspects, fitting a straight line, examination of residuals, matrix treatment of regression analysis, fitting and evaluation of general linear models, and nonlinear regression.

**4723 Design and Analysis of Experiments**

(3-0) 3 hours credit. Prerequisite: One of the following: MS 3313, PSY 3013, STA 1993, STA 2303, STA 3523, or STA 3543.

General concepts in the design and analysis of experiments. Emphasis will be placed on both the experimental designs and analysis and tests of the validity of assumptions. Topics covered include completely randomized designs, randomized block designs, complete factorials, fractional factorials, and covariance analysis. The use of computer software packages will be stressed.

**4803 Statistical Quality Control**

(3-0) 3 hours credit. Prerequisite: STA 1993, STA 3513, or an equivalent.

Statistical methods are introduced in terms of problems that arise in manufacturing and their applications to the control of manufacturing processes. Topics include control charts and acceptance sampling plans. (Same as MAT 4803. Credit cannot be earned for STA 4803 and MAT 4803.)

**4903 Survival Analysis**

(3-0) 3 hours credit. Prerequisite: STA 3523 or an equivalent.

Measures of survival, hazard function, mean residual life function, common failure distributions and a procedure for selecting an appropriate model, and the probabilistic approach to biomedical applications.

**4913 Independent Study**

3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Department Chair and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4953 Special Studies in Statistics**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when the topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4993 Honors Thesis**

3 hours credit. Prerequisites: STA 3523 and consent of instructor. Enrollment limited to students applying for Honors in Management Science and Statistics (see page 78.)

Supervised research and preparation of an honors thesis. May be repeated once for credit with advisor's approval.

## DEPARTMENT OF MARKETING

The Department of Marketing offers a Bachelor of Business Administration (B.B.A.) degree in Marketing, a Bachelor of Business Administration degree in Marketing with a Tourism Concentration, and a Minor in Marketing.

The marketing degree provides students with the theory and methods used by businesses to develop strategies for designing, pricing, distributing, and promoting the firm's offerings. Courses present practical treatment of such topics as marketing strategy, customer demand analysis, market segmentation, promotion management, and international marketing. Graduates can choose from a wide range of careers including marketing management, advertising, personal selling, retailing, international marketing, and marketing research.

The tourism concentration provides the opportunity for a comprehensive business education that can allow students to enter into careers in the tourism and hospitality industry.

The Minor in Marketing is available only to students pursuing a B.B.A. degree.

### DEPARTMENT HONORS

The Department of Marketing offers the opportunity for certain of its outstanding students to achieve the designation of Honors in Marketing and provides the opportunity for advanced study under close faculty supervision.

Selection for honors designation is based on the student's academic performance and recommendation by the Department Undergraduate Program Committee (UPC) in consultation with the Marketing faculty. To be eligible for the designation, students must have a minimum overall grade point average of 3.0 at UTSA and a minimum grade point average of 3.5 in their major at UTSA. To enroll in honors thesis courses and to graduate with the honors designation, these minimum grade point averages must be maintained. Students applying for Honors in Marketing are expected to enroll in the appropriate honors thesis course during their final two semesters. The completed thesis must be approved by a supervising faculty sponsor in Marketing and the UPC. Students interested in this program should contact the UPC through the Department of Marketing office for additional information. Department Honors can be attained independent of, or in addition to, University Honors.

### Bachelor of Business Administration Degree in Marketing

The minimum number of semester credit hours required for this degree is 120.

All candidates seeking this degree must fulfill the Core Curriculum requirements, the Common Body of Knowledge (CBK) requirements, and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Business Administration degree in Marketing must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MTC 1033 Algebra with Calculus for Business <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus additional 3 hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Economics</i></b> (3 semester credit hours) ECO 2013 Introductory Macroeconomics</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Common Body of Knowledge (CBK)

All students seeking a B.B.A. degree in the College of Business must complete the following Common Body of Knowledge (CBK) courses in addition to the Core Curriculum.

<b>Course or Requirement</b>			<b>Semester Credit Hours</b>
ACC	2013	Principles of Accounting I	3
ACC	2033	Principles of Accounting II	3
BLW	3013	Business Law	3
COM	1053	Business and Professional Speech	3
ECO	2013	Introductory Macroeconomics (Domain II)	3
ECO	2023	Introductory Microeconomics	3
FIN	3013	Principles of Business Finance	3
GBA	2013	Social and Ethical Issues in Business	3
IS	1403	Business Information Systems Fluency	3
IS	3003	Principles of Information Systems for Management	3
MGT	3003	Business Communication and Professional Development	3
MGT	3013	Introduction to Organization Theory, Behavior, and Management	3
MGT	4893	Management Strategy and Policy (taken in semester of graduation)	3
MKT	3013	Principles of Marketing	3
MS	1013	Quantitative Methods for Business and Economics (Actuarial Science majors must take STA 3513 in lieu of MS 1013)	3
MS	3033	Management Science and Production Management	3
MTC	1033	Algebra with Calculus for Business (Domain I) (Actuarial Science majors must take MAT 1214 in lieu of MTC 1033)	3

In addition to the Core Curriculum requirements and requirements from the College of Business Common Body of Knowledge (CBK), all candidates for the degree must complete the following degree requirements.

## Degree Requirements

A. 21 required upper-division semester credit hours in the major:

MKT	3083	Marketing Research
MKT	4073	International Marketing
MKT	4093	Consumer Behavior
MKT	4893	Marketing Strategy

9 additional hours of marketing electives. Students may choose the following as one of the additional 9 hours of marketing electives:

MKT	3103	Tourism Marketing
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B. 3 semester credit hours of support work within the College of Business chosen from the following courses:

ECO	3033	Economics of Managerial Decisions
ECO	3053	Aggregate Economic Analysis
FIN	3033	Principles of Investment
FIN	3313	Money and Banking
IS	3053	Database Management for Business
IS	4153	Electronic Commerce
MS	4343	Production/Operations Management
MS	4353	Service Operations Management

C. 9 semester credit hours outside the College of Business.

## Minor in Marketing

The Minor in Marketing is available only to students pursuing a B.B.A. degree. All students pursuing the Minor in Marketing must complete 18 semester credit hours.

A. 6 semester credit hours of required courses:

MKT	3013	Principles of Marketing
MKT	4013	Marketing Management

B. 12 semester credit hours from the following courses:

MKT	3043	Advertising
MKT	3083	Marketing Research
MKT	3113	Retailing
MKT	4073	International Marketing
MKT	4093	Consumer Behavior
MKT	4953	Special Studies in Marketing

To declare a Minor in Marketing, obtain advice, and seek approval of substitutions for course requirements, students must consult the College of Business Undergraduate Advising Center.

## Bachelor of Business Administration Degree in Marketing with a Tourism Concentration

The minimum number of semester credit hours required for this degree is 120.

All candidates seeking this degree must fulfill the Core Curriculum requirements, the Common Body of Knowledge requirements, and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Business Administration degree in Marketing with a Tourism Concentration must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MTC 1033 Algebra with Calculus for Business <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus additional 3 hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) ECO 2013 Introductory Macroeconomics
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

### Common Body of Knowledge (CBK)

All students seeking a B.B.A. degree in the College of Business must complete the following Common Body of Knowledge (CBK) courses in addition to the Core Curriculum.

Course or Requirement			Semester Credit Hours
ACC	2013	Principles of Accounting I	3
ACC	2033	Principles of Accounting II	3
BLW	3013	Business Law	3
COM	1053	Business and Professional Speech	3
ECO	2013	Introductory Macroeconomics (Domain II)	3
ECO	2023	Introductory Microeconomics	3
FIN	3013	Principles of Business Finance	3
GBA	2013	Social and Ethical Issues in Business	3
IS	1403	Business Information Systems Fluency	3
IS	3003	Principles of Information Systems for Management	3
MGT	3003	Business Communication and Professional Development	3
MGT	3013	Introduction to Organization Theory, Behavior, and Management	3
MGT	4893	Management Strategy and Policy (taken in semester of graduation)	3
MKT	3013	Principles of Marketing	3
MS	1013	Quantitative Methods for Business and Economics (Actuarial Science majors must take STA 3513 in lieu of MS 1013)	3
MS	3033	Management Science and Production Management	3
MTC	1033	Algebra with Calculus for Business (Domain I) (Actuarial Science majors must take MAT 1214 in lieu of MTC 1033)	3

In addition to the Core Curriculum requirements and requirements from the College of Business Common Body of Knowledge (CBK), all candidates for the degree must complete the following degree requirements.

### Degree Requirements

A. 21 required upper-division semester credit hours in the major:

12 hours of required courses:

MKT	3063	Personal Selling
MKT	3083	Marketing Research
MKT	4093	Consumer Behavior
MKT	4893	Marketing Strategy

9 additional semester hours of tourism courses chosen from the following:

BLW	4153	Tourism Law
MKT	3103	Tourism Marketing
MKT	3123	Survey of the Tourism Industry
MKT	4543	Tourism Destination Marketing
MKT	4813	Special Topics in Tourism
MKT	4923	Independent Study in Tourism (requires Program Director's approval)
MKT	4943	Internship in Tourism (requires Program Director's approval)

B. 3 semester credit hours of support work within the College of Business chosen from the following:

ECO	3033	Economics of Managerial Decisions
FIN	3033	Principles of Investment
IS	3053	Database Management for Business
MGT	3253	Interpersonal Communication

MGT	3613	Managing Human Resources
MGT	3803	Strategic Management of Nonprofit Organizations
MS	4353	Service Operations Management

C. 9 semester credit hours outside the College of Business chosen from the following:

ANT	2053	Introduction to Cultural Anthropology*
COM	2113	Public Speaking
COM	3523	Public Relations
COM	3633	Professional Presentation

\*If ANT 2053 has been taken to fulfill Domain IV of the Core Curriculum, then another nonbusiness elective must be selected from those listed or with the approval of the Director of the Tourism Program to complete the total plan hours.

## COURSE DESCRIPTIONS MARKETING (MKT)

### **3013 Principles of Marketing**

(3-0) 3 hours credit.

Introduction to basic principles of marketing. An examination of market analysis methods and their use to develop the organization's product mix and the integration of the communication, distribution, and pricing strategies to achieve goals.

### **3043 Advertising**

(3-0) 3 hours credit. Prerequisite: MKT 3013.

The course stresses planning advertising strategy, developing messages, selecting media, and testing effectiveness. Also explores the theory, history, social and economic aspects, and problems of ethics and truth in advertising.

### **3063 Personal Selling**

(3-0) 3 hours credit. Prerequisite: MKT 3013.

Focuses on professional salesmanship. Fundamentals of persuasive interpersonal communication and buyer motivation are stressed as the foundation to effective selling. (Formerly MKT 3163. Credit cannot be earned for both MKT 3063 and MKT 3163.)

### **3083 Marketing Research**

(3-0) 3 hours credit. Prerequisites: MKT 3013 and MS 1013 or the equivalent.

Explores the techniques of marketing research as the means to discover opportunities for investing the firm's resources in its product offerings, including research design, sampling, data collection and analysis, and presentation of findings for marketing action. (Formerly MKT 4083. Credit cannot be earned for both MKT 3083 and MKT 4083.)

### **3103 Tourism Marketing**

(3-0) 3 hours credit.

The course provides the opportunity for students to understand and implement components essential for a successful marketing program in a tourism strategic business unit. Basic knowledge of research tools, market segmentation, strategic planning, advertising, sales, promotions, pricing, and distribution will be explored. (Formerly MKT 3733 and TM 3103. Credit cannot be earned for both MKT 3103 and TM 3103 or MKT 3733.)

### **3113 Retailing**

(3-0) 3 hours credit. Prerequisite: MKT 3013.

Examination of retailing as a specialized economic and social institution within the distribution process. Emphasis is on strategy and resource management for the retail firm; critical variables, forces, and processes are examined from a managerial perspective.

**3123 Survey of the Tourism Industry**

(3-0) 3 hours credit.

Historical development and organizational structure of the tourism industry. Emphasis is placed on the inter-relationship between tourist, resident, business, and government. (Formerly MGT 3703, TM 2103, and TM 3113. Credit cannot be earned for both MKT 3123 and TM 3113 and TM 2103 or MGT 3703.)

**4013 Marketing Management**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and MKT 3013.

An examination of consumer and industrial marketing strategies and processes effective in serving stakeholder needs. Focus is on the strategic analysis of customers, competitors, suppliers, and intermediaries. Demand conditions in growth, mature, and declining markets are examined, and appropriate strategies are developed.

**4043 Advertising Management**

(3-0) 3 hours credit. Prerequisites: MGT 3003, MKT 3013, and MKT 3043.

Emphasizes the management of advertising and the key decision variables supporting the advertising strategy process. Examines the nature and scope of advertising campaigns, including case histories.

**4073 International Marketing**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and MKT 3013.

An overview of concepts, processes, and strategies necessary to offer goods and services successfully in the global marketplace. Focus is on analyzing and assessing political, economic, technological, cultural, and competitive climates in global markets; defining the nature of important needs within the consumer and/or business segments of the country; the selection of countries or regions for market expansion strategies; the selection of target customers; and the design of strategies to facilitate market entry and subsequent expansion.

**4083 Topics in Marketing**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and MKT 3013.

A course focused on marketing topics such as product management, pricing strategies, promotion, distribution management, or services marketing. May be repeated for credit when topics vary, but not more than 6 semester credit hours will apply to a bachelor's degree.

**4093 Consumer Behavior**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and MKT 3013.

Focus on the customer as a primary consideration in strategic marketing decisions. Analysis of personal and environmental variables in the customer's world as the basis for market segmentation and subsequent formulation of the marketing mix.

**4123 Internet Marketing**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and MKT 3013.

An overview of the marketing concepts, practices, and processes involved in offering and promoting goods and services effectively over the Internet. Emphasis on adapting offline principles to the online environment and integrating the Internet into the traditional marketing mix.

**4133 Import/Export Marketing**

(3-0) 3 hours credit. Prerequisites: MGT 3003 and MKT 3013.

Introduction to basic principles of international importing and exporting strategy from a marketing perspective.

**4543 Tourism Destination Marketing**

(3-0) 3 hours credit. Prerequisite: MGT 3003.

Emphasizes a strategic approach to marketing for tourism destinations: communities, regions, attractions, and resorts. Focus is on the optimal planning, development, and positioning in the context of the overall marketing plan. Includes consideration of environmental and resource requirements, as well as tourism's social and cultural ramifications. (Formerly MKT 3743 and TM 4543. Credit cannot be earned for both MKT 4543 and TM 4543 or MKT 3743.)

- 4813 Special Topics in Tourism**  
(3-0) 3 hours credit. Prerequisite: MGT 3003.  
Analysis and discussion of events, issues, and trends affecting management and marketing for tourism businesses. May be repeated for credit when topics vary. (Formerly TM 4813.)
- 4893 Marketing Strategy**  
(3-0) 3 hours credit. Prerequisites: MGT 3003, MKT 3013, senior standing, and 15 additional semester credit hours in marketing. Approval is obtained in the College of Business Undergraduate Advising Center.  
This marketing capstone course focuses on integrating marketing functions, processes, and concepts into a coherent and effective marketing strategy. Satisfies degree requirements for MKT 3073 in earlier catalogs.
- 4913 Independent Study**  
3 hours credit. Prerequisites: MGT 3003, MKT 3013, 9 additional semester credit hours in marketing, senior standing, and permission in writing from the instructor, the Department Chair, and the Dean of the College of Business. See the College of Business Undergraduate Advising Center for required forms.  
Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.
- 4923 Independent Study in Tourism**  
3 hours credit. Prerequisites: MGT 3003 and permission in writing from the Tourism Instructor, the Director of the Tourism Management Program, the Department Chair, and the Dean of the College of Business. See the College of Business Undergraduate Advising Center for required forms.  
The course may require independent research, reading, planning, discussion, and/or writing under the direction of a sponsoring tourism faculty instructor. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply toward earning a Bachelor of Business Administration degree. (Formerly TM 4913.)
- 4933 Internship in Marketing**  
3 hours credit. Prerequisites: MGT 3003, MKT 3013, 2.5 grade point average, 9 additional semester credit hours in marketing, and permission in writing from the instructor, the Department Chair, and the Dean of the College of Business. See the College of Business Undergraduate Advising Center for required forms and additional requirements.  
The opportunity to gain knowledge through the experiential activities of organizational life. Joint cooperation with business, government, and health science institutions in structuring and monitoring work experience aimed at supplementing the learning process. Opportunities are developed in consultation with the faculty advisor and Department Chair and require approval of both. Internship may be repeated once (for a total of 6 semester credit hours) provided the internships are with different organizations, but only 3 hours may count toward the 21 hours of marketing required for the major.
- 4943 Internship in Tourism**  
3 hours credit. Prerequisites: MGT 3003, student must currently have an overall 2.5 grade point average, and permission in writing from the sponsoring Tourism Instructor, the Director of the Tourism Management Program, the Department Chair, and the Dean of the College of Business. See the College of Business Undergraduate Advising Center for additional requirements and required forms.  
The course is designed for students seeking supervised full- or part-time work experience in the tourism industry. May be repeated for credit, but not more than 6 semester credit hours of total Internship in Tourism credit will apply toward earning a Bachelor in Business Administration degree. (Formerly TM 4933.)
- 4953 Special Studies in Marketing**  
(3-0) 3 hours credit. Prerequisites: MGT 3003 and MKT 3013.  
An organized course offering the opportunity for specialized study not normally available as part of the regular course offerings. Could include topics such as marketing channels of distribution, sales management, industrial marketing, current developments in marketing theory, and analysis of ethical, social, and public policy aspects of marketing. May be repeated for credit when topics vary, but not more than 6 semester credit hours will apply to a bachelor's degree.

**4993 Honors Thesis**

3 hours credit. Prerequisite: MGT 3003. Enrollment limited to students applying for Honors in Marketing (see page 92).

Supervised research and preparation of an honors thesis. May be repeated once for credit with advisor's approval.

Photo – Chapter 3: College of Education and Human Development

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## COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT

### VISION STATEMENT

The College of Education and Human Development (COEHD) at the University of Texas at San Antonio will be an international model for developing inclusive, transformative leaders guided by principles of community, equity, respect for diversity, integrity, service, and scholarship.

### MISSION STATEMENT

The College of Education and Human Development will create a democratic, collaborative learning organization in a way that:

- promotes equity, fairness, and accountability
- recognizes a healthy balance among scholarship, teaching, and service
- develops and applies new knowledge of best practices
- prepares educators/leaders to succeed in diverse contexts
- retains students, faculty, and staff
- builds community within and at large
- fosters the holistic development of all its members
- uses resources effectively and efficiently

so that the College graduates citizens who are engaged in productive contributions to self, society, and the global community.

### GENERAL INFORMATION

The College of Education and Human Development is made up of four departments and one division: Division of Bicultural-Bilingual Studies; Departments of Counseling, Educational Psychology, and Adult and Higher Education; Educational Leadership and Policy Studies; Health and Kinesiology; and Interdisciplinary Studies and Curriculum and Instruction.

Four undergraduate degrees are offered within the College: the Bachelor of Arts in Interdisciplinary Studies, the Bachelor of Science in Health, the Bachelor of Science in Kinesiology, and the Bachelor of Arts in Mexican American Studies. Minors are also offered in Bicultural Studies, English as a Second Language, and Health. For more information related to the College, consult the Web page, <http://coehd.utsa.edu>.

### Advising and Certification Center

#### Academic Advising

Academic advising services are provided to students in the following majors: Health, Kinesiology, Interdisciplinary Studies, and Mexican American Studies. Advising services are also provided for students seeking a teaching certificate for those Secondary and All-Level content areas that are available at UTSA. This includes students pursuing secondary and all-level certification, students with earned baccalaureate degrees who would like to become certified as teachers, and teachers wishing to add additional certificates to their credentials.

#### Certification

The University of Texas at San Antonio is approved by the State Board for Educator Certification (SBEC) to offer teacher certificate programs for Texas certification as elementary, middle school, and high school classroom teachers.

Students interested in pursuing elementary and middle school teacher certification will major in Interdisciplinary Studies and follow the appropriate certification program for the desired level of the certificate. Students who would like to become high school teachers will major in the academic area in which certification is desired and simultaneously follow the certification program for this teaching field. Students pursuing all-level certification will follow specialized all-level programs in Music or Kinesiology.

Additional information about UTSA certification programs and teacher certification guidelines is available in the Teacher Certification section of this catalog and in the COEHD Advising and Certification Center.

## DIVISION OF BICULTURAL-BILINGUAL STUDIES

The Division of Bicultural-Bilingual Studies offers a Bachelor of Arts (B.A.) degree in Mexican American Studies as well as Minors in Bicultural Studies and English as a Second Language. The B.A. in Mexican American Studies prepares students to enter graduate school or pursue a career as an educator, researcher, community leader, or community advocate. The division also offers courses that may be used to fulfill the Core Curriculum requirements or that may be taken as support courses for programs within the University or as electives. Courses in bicultural-bilingual studies offer students the opportunity to prepare for bilingual and/or second language teaching and give insights into bilingual and multicultural functions in society. Courses in teaching English as a Second Language (ESL) offer students the opportunity to learn appropriate methods and strategies for teaching at the elementary, secondary, and adult levels. Courses are designed for students who plan to teach second languages, but are also designed for those who intend to teach in other areas or to enter fields that rely heavily on an understanding of language learning and bilingualism. In addition, the division offers advanced courses in English for international students that are appropriate for both graduate and undergraduate students.

The Division of Bicultural-Bilingual Studies offers coursework required for teacher certification in the area of bilingual education and ESL. Students seeking certification in this area should complete requirements for either the Early Childhood–Grade 4 Bilingual Generalist Certificate, the Grades 4–8 Bilingual Generalist Certificate, or the Grades 4–8 ESL Certificate.

### DIVISION HONORS

The Division of Bicultural-Bilingual Studies awards Division Honors to certain outstanding students and provides the opportunity for advanced study under close faculty supervision.

Selection for honors designation is based on the student's academic performance and recommendation by the faculty of the student's major discipline. To be eligible for the program, students must have a minimum overall grade point average of 3.0 at UTSA and a minimum grade point average of 3.5 in their major at UTSA. The minimum grade point averages must be maintained for students to receive the approval of the Division Honors Committee and the discipline faculty. Students applying for Division Honors are expected to enroll in the appropriate honors thesis course during their final two semesters. The completed thesis must be approved by the supervising faculty sponsor and another departmental faculty member. Students interested in this program should contact their professors for additional information.

### Bachelor of Arts Degree in Mexican American Studies

The Bachelor of Arts in Mexican American Studies is an interdisciplinary program integrating Mexican American studies with a specific liberal arts discipline. Majors are required to complete 39 semester credit hours from a prescribed program of study that must include 18 semester credit hours from one of seven options: anthropology; communities, families, and children; history; literary and cultural studies; political science; sociology; or Spanish.

The minimum number of semester credit hours required for this degree, including the Core Curriculum requirements, is 120.

All candidates for this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Mexican American Studies must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) BBL 2003 Language, Culture, and Society or SOC 1013 Introduction to the Study of Society <b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) BBL 2023 Latino Cultural Expressions
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

### Degree Requirements

A. 21 semester credit hours of Mexican American studies:

1. 18 required semester credit hours:

- |     |      |  |
|-----|------|--|
| BBL | 2003 | Language, Culture, and Society               |
|     |      | or   |
| BBL | 3133 | Language Development in Bilinguals           |
| BBL | 2013 | Introduction to Chicano(a) Studies           |
| BBL | 2023 | Latino Cultural Expressions                  |
| BBL | 3033 | The Mexican American in the Southwest        |
|     |      | or   |
| HIS | 3443 | Latinos in the United States                 |
| BBL | 4083 | Research Seminar in Mexican American Studies |

- SPN 3493 Mexican American Literature  
or
- ENG 4613 Topics in Mexican American Literature

2. 3 semester credit hours selected from the following:

- BBL 3023 Mexican American Culture (required for anthropology option)
- BBL 3043 Psychosocial Processes in Bicultural-Bilingual Environments
- BBL 4953 Special Studies in Bilingual and Bicultural Studies (anthropology option students may substitute this course for BBL 3023 when topic is on Mexican Americans and cultural anthropology)
- POL 3093 Mexican American Politics (required for political science option)
- SOC 3403 Mexican American Stratification (required for sociology option)
- SOC 3433 Mexican Immigration and U.S. Society (recommended for communities, families, and children option)

B. 18 semester credit hours of required courses completed in one of the following options:

**Option in Anthropology**

a. 9 semester credit hours of courses selected from the following:

- ANT 2033 Introduction to Physical Anthropology
- ANT 2043 Introduction to Archaeology
- ANT 2053 Introduction to Cultural Anthropology
- ANT 2063 Language, Thought, and Culture

b. 9 additional upper-division semester credit hours:

- AHC 3423 Pre-Columbian Art and Architecture of Mesoamerica
- ANT 3363 Indians of Mesoamerica
- ANT 4123 Archaeology of the American Southwest

**Option in Communities, Families, and Children**

- BBL 3053 Foundations of Bilingual Studies
- BBL 4033 Assessment, Learning, and Motivation in Bicultural-Bilingual Classrooms
- ESL 3023 Second Language Teaching and Learning in EC-4
- SOC 3413 Mexican American Family
- SOC 3503 Sociology of Education
- SOC 3513 Children and Society

**Option in History**

a. 6 required semester credit hours:

- HIS 2003 Historical Methods
- HIS 4973 Seminar in History

b. 6 semester credit hours selected from the following:

- HIS 3083 History of the American West
- HIS 3153 Development of American Urban Society
- HIS 3463 History of Religion in the United States

- c. 6 semester credit hours selected from the following:

HIS	3063	The Spanish Borderlands, 1521-1821
HIS	3073	The Mexican Borderlands/The American Southwest
HIS	3293	Imperial Spain
HIS	3303	History of Mexico

### Option in Literary and Cultural Studies

- a. 3 semester credit hours in methods. Note: This requirement must be completed before continuing with any other option requirements.

ENG	2213	Literary Criticism and Analysis
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- b. 3 semester credit hours from the following:

ENG	2383	Multi-Ethnic Literatures of the United States
ENG	2423	Literature of Texas and the Southwest
ENG	3113	Studies in Individual Authors
ENG	4973	Seminar for English Majors

- c. 3 semester credit hours from the following:

AHC	3423	Pre-Columbian Art and Architecture of Mesoamerica
AHC	4333	Topics in Art History and Criticism [When taught by a MAS affiliate or when focus is on Chicano/Latino content.]
COM	4413	Topics in Speech Communication [When taught by a MAS affiliate or when focus is on Chicano/Latino content.]
COM	4433	Topics in Electronic Media [When taught by a MAS affiliate or when focus is on Chicano/Latino content.]

- d. 3 semester credit hours:

ENG	4613	Topics in Mexican American Literature
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- e. 3 semester credit hours:

BBL	3023	Mexican American Culture
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- f. 3 semester credit hours:

ENG	4953	Special Studies in English
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### Option in Political Science

- a. 6 required semester credit hours:

POL	2703	Scope and Methods in Political Science
POL	3083	Ethnic Politics in the United States

- b. 3 semester credit hours selected from the following:

POL	2503	Introduction to Political Theory
POL	2513	Public Administration and Public Policy
POL	2533	Introduction to Political Science

POL	2603	International Politics
POL	2623	Law and Society
POL	2633	Comparative Politics

- c. 9 semester credit hours of upper-division political science courses, as follows:

3 semester credit hours of political theory  
3 semester credit hours of comparative politics or international relations  
3 semester credit hours of public administration or public law

**Option in Sociology**

- a. 12 required semester credit hours:

SOC	1013	Introduction to the Study of Society
SOC	3043	Race and Ethnic Relations
SOC	3313	Conceptualization and Measurement in Sociology
		or
SOC	3373	Qualitative Research Methods
SOC	3343	Classical Sociological Theory
		or
SOC	3353	Contemporary Sociological Theory

- b. 6 semester credit hours selected from the following:

SOC	3013	Social Stratification
SOC	3033	Population Dynamics
SOC	3073	Migration Dynamics
SOC	3263	Latinas in the U.S. Society
SOC	3283	Poverty
SOC	3293	Gender Roles
SOC	3413	Mexican American Family
SOC	3433	Mexican Immigration and U.S. Society

**Option in Spanish**

- a. 18 required semester credit hours:

SPN	3013	Spanish Phonetics and Pronunciation
		or
SPN	3113	Linguistic Structures of Spanish
SPN	3043	Advanced Reading
SPN	3063	Grammar and Composition
SPN	3463	Latin American Literature to Modernism
		or
SPN	3473	Latin American Literature since Modernism
SPN	3623	Latin American Culture and Civilization
SPN	4123	The Spanish of the Southwest

- C. 39 semester credit hours of electives

## Minor in Bicultural Studies

All students pursuing a Minor in Bicultural Studies must complete 18 semester credit hours.

A. 6 semester credit hours of courses on bicultural studies selected from the following:

BBL	2003	Language, Culture, and Society
BBL	2013	Introduction to Chicano(a) Studies
BBL	2023	Latino Cultural Expressions

B. 6 semester credit hours of courses on language selected from the following:

BBL	3013	Language Analysis and Bilingualism
BBL	3043	Psychosocial Processes in Bicultural-Bilingual Environments
BBL	3133	Language Development in Bilinguals
ESL	3003	Applications of Linguistics

C. 6 semester credit hours of courses on culture and society selected from the following:

BBL	2033	Multiculturalism in the Southwest
BBL	3023	Mexican American Culture
BBL	3033	The Mexican American in the Southwest
BBL	4953	Special Studies in Bilingual and Bicultural Studies

To declare a Minor in Bicultural Studies, obtain advice, or seek approval of substitutions for course requirements, students should consult an academic advisor in the College of Education and Human Development Advising and Certification Center.

## BILINGUAL EDUCATION AND ESL TEACHER CERTIFICATION OPTIONS

### Bachelor of Arts Degree in Interdisciplinary Studies (Early Childhood–Grade 4 Bilingual Generalist Certification Option)

The minimum number of semester credit hours required for the Interdisciplinary Studies (IDS) degree with early childhood–grade 4 bilingual generalist certification is 134, at least 39 of which must be at the upper-division level.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Interdisciplinary Studies with teacher certification must fulfill University Core Curriculum requirements. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<i>Mathematics</i> (3 semester credit hours) MTC 1023 College Algebra with Applications <i>Science</i> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) IDS 2113 Society and Social Issues (recommended)</p> <p><b><i>Economics</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed below will satisfy this core requirement: IDS 2303 World Literature I: Through the Sixteenth Century IDS 2313 World Literature II: Since the Sixteenth Century</p> <p><b><i>The Arts</i></b> (3 semester credit hours) BBL 2023 Latino Cultural Expressions</p>
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) IDS 2213 World Civilization Since the Fifteenth Century

**Degree Requirements (50 semester credit hours)**

## A. 20 semester credit hours of required IDS courses:

14 semester credit hours of required courses:

IDS	2713	Modes of Inquiry Across the Fields of Study
IDS	3201	Physical Science Laboratory
IDS	3203	Physical Science
IDS	3211	Earth & Life Science Laboratory
IDS	3213	Earth & Life Science
IDS	3303	Studies in Exceptionality

6 semester credit hours selected from the following:

HTH	2133	Health and Environmental Safety
IDS	2083	Technology for Liberal Arts and Social Sciences
IDS	3653	Music and Related Arts

## B. 30 semester credit hours of required support courses:

COM	2123	Oral Interpretation
ECE	2103	Child Growth and Development
EDP	3133	Principles of Learning and Classroom Management EC-4
EDU	2103	Education in U.S. Society
MAT	1153	Essential Elements in Mathematics I
MAT	1163	Essential Elements in Mathematics II
RDG	3823	Reading Comprehension—EC-4
RDG	3803	Writing Development and Processes or
RDG	4733	Literacy Problems—EC-4

6 semester credit hours from the following (at least one course at 3000 level)

SPN	2103	Oral and Written Expression
SPN	2513	Spanish for Special Purposes
SPN	3033	Oral Communication Skills
SPN	3063	Grammar and Composition

Certification Requirements (42 semester credit hours)

Texas Success Initiative (TSI) requirements must be satisfied before enrollment in Certification, Professional Education, and Student Teaching coursework.

A. 24 semester credit hours required of Early Childhood–Grade 4 Bilingual Generalist courses:

BBL	2243	Bilingual Families, Communities, and Schools
BBL	3013	Language Analysis and Bilingualism
BBL	3023	Mexican American Culture
		or
BBL	3033	The Mexican American in the Southwest
BBL	3133	Language Development in Bilinguals
BBL	3143	Children’s Literature for Bilingual Learners
BBL	3053	Foundations of Bilingual Studies
ESL	3023	Second Language Teaching and Learning in EC–4
ESL	3053	Literacy in a Second Language

B. 18 semester credit hours of Professional Education courses:

Admission to the Teacher Certification Program is prerequisite to enrollment in C&I 4403.

BBL	4033	Assessment, Learning, and Motivation in Bicultural–Bilingual Classrooms
BBL	4063	Bilingual Approaches to Content-Based Learning
BBL	4073	Language Arts in a Bicultural-Bilingual Program
C&I	4403	Approaches to Teaching Mathematics and Science EC–4
C&I	4616	Student Teaching – EC–Grade 4

134 total semester credit hours for degree and certification

### **Bachelor of Arts Degree in Interdisciplinary Studies (Grades 4–8 Bilingual Generalist Certification Option)**

The minimum number of semester credit hours required for the Interdisciplinary Studies (IDS) degree with grades 4–8 bilingual generalist certification is 137, at least 39 of which must be at the upper-division level.

Core Curriculum requirements: Students seeking the Bachelor of Arts degree in Interdisciplinary Studies with teacher certification must fulfill University Core Curriculum requirements. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

<b>Core Curriculum Requirements</b>	<b>Courses that Satisfy Core Curriculum and Degree Requirements</b>
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MTC 1023 College Algebra with Applications <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) IDS 2113 Society and Social Issues (recommended) <b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed below will satisfy this core requirement: IDS 2303 World Literature I: Through the Sixteenth Century IDS 2313 World Literature II: Since the Sixteenth Century <b>The Arts</b> (3 semester credit hours) BBL 2023 Latino Cultural Expressions
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) IDS 2213 World Civilization Since the Fifteenth Century

**Degree Requirements (54 semester credit hours)**

## A. 17 semester credit hours of required courses:

IDS	2083	Technology for Liberal Arts and Social Sciences
		or
HTH	2133	Health and Environmental Safety
IDS	2713	Modes of Inquiry Across the Fields of Study
IDS	3201	Physical Science Laboratory
IDS	3203	Physical Science
IDS	3211	Earth and Life Science Laboratory
IDS	3213	Earth and Life Science
IDS	3303	Studies in Exceptionality

## B. 31 semester credit hours of required support courses:

EDP	2113	Development in the Elementary and Middle School Child
EDU	2103	Education in U.S. Society
GRG	1023	World Regional Geography

MAT	1093	Precalculus
MAT	1153	Essential Elements of Mathematics I
MAT	1163	Essential Elements of Mathematics II
MAT	1203	Calculus Concepts and Applications
RDG	3523	Developmental Reading – Grades 4–8
RDG	3633	Literature and Other Texts Across the Content Areas – Grades 4–8

Additional 3 semester credit hours in Level I or II Science course in a different discipline from science courses taken for core requirement.

One science course must include a wet laboratory that can be met in core requirement: 1 semester credit hour.

C. 6 semester credit hours from the following (at least one course at 3000 level):

SPN	2103	Oral and Written Expression
SPN	2513	Spanish for Special Purposes
SPN	3033	Oral Communication Skills
SPN	3063	Grammar and Composition

### **Certification requirements (41 semester credit hours)**

Texas Success Initiative (TSI) requirements must be satisfied before enrollment in Certification, Professional Education, and Student Teaching coursework.

A. 18 semester credit hours required of Grades 4–8 Bilingual Generalist courses:

BBL	2243	Bilingual Families, Communities, and Schools
BBL	3053	Foundations of Bilingual Studies
BBL	3023	Mexican American Culture
		or
BBL	3033	The Mexican American in the Southwest
BBL	3133	Language Development in Bilinguals
ESL	3053	Literacy in a Second Language
ESL	3063	Second Language Acquisition in Early Adolescence

B. 23 semester credit hours of Professional Education courses:

BBL	4033	Assessment, Learning, and Motivation in Bilingual Classrooms
BBL	4063	Bilingual Approaches to Content-Based Learning
BBL	4073	Language Arts in a Bicultural-Bilingual Program
C&I	4502	Mathematics and Science Integrated Laboratory
C&I	4603	Approaches to Teaching Mathematics and Science (4–8)
C&I	4626	Student Teaching: 4–8 Generalists
EDP	3303	Principles of Learning and Classroom Management (Grades 4–8)

137 total semester credit hours for degree and certification.

## Bachelor of Arts Degree in Interdisciplinary Studies (Grades 4–8 ESL Certification Option)

Students pursuing Grades 4–8 ESL certification must choose between Option A (focusing on reading, language arts, and social studies) or Option B (focusing on mathematics, science, and social studies).

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Interdisciplinary Studies (Grades 4–8 ESL certification option) must fulfill University Core Curriculum requirements. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MTC 1023 College Algebra or higher. <b>Science</b> (9 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Recommended: BBL 2003 Language, Culture, and Society SOC 1013 Introduction to the Study of Society IDS 2113 Society and Social Issues <b>Economics</b> (3 semester credit hours) Any three hours under this section of core courses will satisfy this core requirement.
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed below will satisfy this core requirement. Recommended: IDS 2303 World Literature I: Through the Sixteenth Century IDS 2313 World Literature II: Since the Sixteenth Century <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. Recommended: BBL 2023 Latino Cultural Expressions
<b>Domain IV: World Society and Issues</b>	Any three hours listed under this section of core courses will satisfy this core requirement. Recommended: IDS 2213 World Civilization since the Fifteenth Century

**Option A: Reading, Language Arts, and Social Studies (60–63 semester credit hours)****Degree Requirements for Option A**

A. 18 semester credit hours of required courses:

ENG	3333	Introduction to the Structure of English
ESL	3003	Applications of Linguistics
ESL	3033	Foundations of English as a Second Language
ESL	3053	Literacy in a Second Language
ESL	3063	Second Language Acquisition in Early Adolescence
ESL	4013	Principles of First and Second Language Acquisition

B. 30 semester credit hours from academic subject areas:

*Area 1: Reading (9 semester credit hours)*

RDG	3523	Developmental Reading—Grades 4–8 (fulfills reading requirement)
RDG	3533	Content Area Reading—Grades 4–8 (fulfills reading requirement)

3 semester credit hours from the following:

ENG	2013	Introduction to Literature
ENG	2423	Literature of Texas and the Southwest

*Area 2: Language Arts (9 semester credit hours)*

RDG	3633	Literature and Other Texts Across the Content Areas—Grades 4–8
RDG	3803	Writing Development and Processes

3 semester credit hours from the following:

ENG	2383	Multi-Ethnic Literatures of the United States
ENG	3303	Theory and Practice of Composition
ENG	3513	Mexican American Literature

*Area 3: Social Studies (9 semester credit hours)*

GRG	1023	World Regional Geography
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3 semester credit hours from the following:

BBL	3033	The Mexican American in the Southwest
SOC	3043	Race and Ethnic Relations
SOC	3283	Poverty
SOC	3403	Mexican American Stratification
SOC	3413	Mexican American Family
SOC	3423	Mass Media in Society

3 semester credit hours from the following:

GRG	3113	Geography of the United States and Canada
GRG	3143	Geography of Mexico
GRG	3153	Geography of Texas
GRG	3213	Cultural Geography
GRG	3513	Urban Geography

*Select one additional upper-division course from the courses listed in reading, language arts or social studies. (3 semester credit hours)*

C. Mathematics and Science Requirement (6 hours of mathematics and 6 hours of science above the Core Curriculum requirements)

Recommended:

MAT	1153	Essential Elements in Mathematics I
MAT	1163	Essential Elements in Mathematics II
IDS	3203	Physical Science
IDS	3213	Earth and Life Science

D. Language Requirement (0–3 semester credit hours)

Documented proficiency in a language other than English at the Intermediate level (2000 level)

Courses include but are not limited to: ASL, FRN, GER, ITL, JPN, RUS, SPN at 2013 level and SPN 2003 Spanish for Elementary Education.

**Certification Requirements for Option A (33 semester credit hours)**

*Lower-Division (9 semester credit hours)*

EDP	2113	Development in the Elementary and Middle School Child
EDU	2103	Education in U.S. Society
IDS	2713	Modes of Inquiry Across the Fields of Study

*Upper-Division (6 semester credit hours)*

BBL	3403	Cultural and Linguistic Diversity in a Pluralistic Society
IDS	3303	Studies in Exceptionality

*Professional Education Component (18 semester credit hours)*

C&I	4503	Approaches to Teaching Language Arts, Reading and Social Studies (4–8)
C&I	4996	Student Teaching: ESL Grades 4–8
EDP	3303	Principles of Learning and Classroom Management (Grades 4–8)
EDP	4203	Assessment and Evaluation
ESL	4003	Approaches to Second Language Teaching (Standard IV, VI)

**Option B: Math, Science, and Social Studies (61–66 semester credit hours)**

**Degree Requirements for Option B**

A. 18 semester credit hours of required courses:

ENG	3333	Introduction to the Structure of English
ESL	3003	Applications of Linguistics
ESL	3033	Foundations of English as a Second Language
ESL	3053	Literacy in a Second Language
ESL	3063	Second Language Acquisition in Early Adolescence
ESL	4013	Principles of First and Second Language Acquisition

B. 37–39 semester credit hours from three academic subject areas:

*Area 1: Social Studies (9 semester credit hours)*

GRG	1023	World Regional Geography
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3 semester credit hours from the following:

BBL	3033	The Mexican American in the Southwest
SOC	3043	Race and Ethnic Relations

SOC	3283	Poverty
SOC	3403	Mexican American Stratification
SOC	3413	Mexican American Family
SOC	3423	Mass Media in Society

3 semester credit hours from the following:

GRG	3113	Geography of the United States and Canada
GRG	3143	Geography of Mexico
GRG	3153	Geography of Texas
GRG	3213	Cultural Geography
GRG	3513	Urban Geography

*Area 2: Mathematics (12 semester credit hours)*

MAT	1093	Precalculus
MAT	1153	Essential Elements in Mathematics I
MAT	1163	Essential Elements in Mathematics II
MAT	1203	Calculus Concepts and Applications

*Area 3: Science (12-13 semester credit hours)*

IDS	3201	Physical Science Laboratory
IDS	3203	Physical Science
IDS	3211	Earth and Life Science Laboratory
IDS	3213	Earth and Life Science

*And one additional science course plus laboratory chosen from the courses listed below (4–5 semester credit hours)*

BIO	1113	Biology 1
BIO	1122	Laboratory Investigations in Biology
CHE	1103	General Chemistry I
CHE	1122	General Chemistry I Laboratory
GEO	1103	Introduction to Earth Systems
GEO	1111	Introduction to Earth Systems Laboratory
PHY	1603	General Physics I
PHY	1611	General Physics I Laboratory

C. Reading Requirement (6 semester credit hours)

RDG	3523	Developmental Reading—Grades 4–8
RDG	3533	Content Area Reading—Grades 4–8

D. Language Requirement (0–3 semester credit hours)

Documented proficiency in a language other than English at Intermediate level (2000 level)

Courses include but are not limited to: ASL, FRN, GER, ITL, JPN, RUS, SPN at 2013 level and SPN 2003 Spanish for Elementary Education.

**Certification Requirements for Option B (35 semester credit hours)**

*Lower-Division (9 semester credit hours)*

EDP	2113	Development in the Elementary and Middle School Child
EDU	2103	Education in U.S. Society
IDS	2713	Modes of Inquiry Across the Fields of Study

*Upper-Division (6 semester credit hours)*

BBL	3403	Cultural and Linguistic Diversity in a Pluralistic Society
IDS	3303	Studies in Exceptionality

*Professional Education Component (20 semester credit hours)*

C&I	4502	Mathematics and Science Integrated Laboratory
C&I	4603	Approaches to Teaching Mathematics and Science (Grades 4–8)
C&I	4996	Student Teaching: ESL Grades 4–8
EDP	3303	Principles of Learning and Classroom Management (Grades 4–8)
EDP	4203	Assessment and Evaluation
ESL	4003	Approaches to Second Language Teaching

**COURSE DESCRIPTIONS**  
**BICULTURAL-BILINGUAL STUDIES**  
**(BBL)**

**2003 Language, Culture, and Society**

(3-0) 3 hours credit.

The interdisciplinary study of language in its cultural and social contexts, with emphasis on linguistically heterogeneous communities. Topics include language and ethnicity, language and gender, language and social class, language acquisition, and oral and written language.

**2013 Introduction to Chicano(a) Studies**

(3-0) 3 hours credit.

An introduction to the field of Chicano(a) studies from its inception to the present. Chicano(a) studies and scholarship are explored through multidisciplinary concepts, theory, and methodologies, providing differing interpretations of the Chicano and Chicana experience in the United States.

**2023 Latino Cultural Expressions**

(3-0) 3 hours credit.

An introductory overview of Hispanic visual, performing, and folk arts from their origins in the Iberian peninsula, through the later blending of cultures and their parallelism during revolutionary periods, to contemporary Latino expressions in the United States.

**2033 Multiculturalism in the Southwest**

(3-0) 3 hours credit.

A panoramic study of the concept of culture and the social dynamics of exchange among those ethnic groups that determine the multicultural milieu of the Southwest. Examination of cultural differences and similarities among all peoples of the region and the role of multiculturalism in politics, education, economics, religion, and everyday life.

**2243 Bilingual Families, Communities, and Schools**

(3-0) 3 hours credit.

Examination of the interrelationships among Latino bilingual families, communities, and schools as they relate to the achievement of children in the bilingual classroom. Focus on cultural practices including modes of communication that facilitate Latino family involvement in the schools and other community organizations (health, special services). Field-based experiences required. Course offered in Spanish.

**3013 Language Analysis and Bilingualism**

(3-0) 3 hours credit.

Survey of concepts in descriptive and contrastive linguistics; analysis of language contact phenomena, including cross-linguistic transfer, language alternation, and bilingualism. Offered in Spanish and English.

**3023 Mexican American Culture**

(3-0) 3 hours credit.

A survey of Mexican American cultural distinctiveness in the areas of biculturalism, cultural production, and social organization. Topics may include family and kinship, folklore, health, language, music, and religion.

- 3033 The Mexican American in the Southwest**  
(3-0) 3 hours credit.  
Historical foundations of the United States–Mexico biculturalism in the Southwest. An examination of the historical forces that created and shaped the Mexican American people as a bicultural community. Attention is given to Mexican American contributions in arts, economics, literature, and politics.
- 3043 Psychosocial Processes in Bicultural-Bilingual Environments**  
(3-0) 3 hours credit.  
A cross-cultural and social psychological study of human development, interethnic communication, stereotyping, learning styles, and other topics relevant to delivery of social and educational services in a bicultural setting.
- 3053 Foundations of Bilingual Studies**  
(3-0) 3 hours credit.  
Investigation of the philosophies and theories of schooling in bilingual societies, with focus on language policy and the sociological, psychological, and legal aspects involved. (Formerly BBL 4023. Credit cannot be earned for both BBL 3053 and BBL 4023.)
- 3133 Language Development in Bilinguals**  
(3-0) 3 hours credit.  
A study of bilingual language development in its social and cultural contexts. Emphasis on factors affecting successful bilingual language development in schools and communities.
- 3143 Children’s Literature for Bilingual Learners**  
(3-0) 3 hours credit.  
Study of the use of oral and written literature for children in bilingual programs. The history and development of Spanish language children’s literature from social, cultural, and political perspectives. Emphasis on Mexican American cultural experiences as well as universal themes. Taught in Spanish and English; field-based experiences required.
- 3403 Cultural and Linguistic Diversity in a Pluralistic Society**  
(3-0) 3 hours credit.  
Examination of sociolinguistic and sociocultural principles central to culturally diverse settings, including the classroom. Various pedagogical practices will be explored to identify culturally inclusive responses.
- 4033 Assessment, Learning, and Motivation in Bicultural-Bilingual Classrooms**  
(3-0) 3 hours credit.  
A survey of learning and motivation theory and examination of evaluation and assessment procedures in bicultural-bilingual settings, including formal and informal assessment of language proficiency and learning for instructional purposes. The appropriate use of standardized tests with language minority populations will be included. Twenty-five hours of directed field experience in elementary and/or middle school classrooms are required.
- 4063 Bilingual Approaches to Content-Based Learning**  
(3-0) 3 hours credit.  
An investigation of appropriate first language usage in bilingual classrooms, focusing on the different content areas, appropriate terminology for native language instruction, and the study of languages distribution strategies. Taught in Spanish. Twenty-five hours of directed field experience in elementary and/or middle school classrooms are required.
- 4073 Language Arts in a Bicultural-Bilingual Program**  
(3-0) 3 hours credit.  
An examination of theories, instructional strategies, texts and materials for biliteracy development in the elementary bilingual classroom. Emphasis on the integrated use of listening, speaking, reading, and writing in content area teaching. Offered in Spanish and English. Twenty-five hours of directed field experience in elementary and/or middle school classrooms are required. (Same as ABL 4073. Credit cannot be earned for both BBL 4073 and ABL 4073.)

**4083 Research Seminar in Mexican American Studies**

(3-0) 3 hours credit.

Provides students the opportunity to compare, contrast, and integrate social science theory and methods, and guides students in the conduct of sociocultural research in the Mexican American community. Emphasis will be given to qualitative and ethnographic methods and theory.

**4913 Independent Study**

3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, and the Division Director in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4931-3 Internship in Mexican American Studies**

1 to 3 hours credit.

A supervised experience, relevant to the student's program of study within selected community organizations and agencies. Must be taken on a credit/no credit basis.

**4953 Special Studies in Bilingual and Bicultural Studies**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when the topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree. To apply credit earned in BBL 4953 toward a minor, consent of the academic advisor, in the COEHD Advising and Certification Center, is required.

**4993 Honors Thesis**

3 hours credit. Prerequisites: Enrollment limited to candidates for Honors in Mexican American Studies during their last two semesters; completion of honors examination and consent of the Honors College.

Supervised research and preparation of an honors thesis. May be repeated once with thesis advisor's approval.

**Minor in English as a Second Language**

All students pursuing a Minor in English as a Second Language must complete 18 semester credit hours.

A. 12 semester credit hours of courses in English as a second language:

ESL	3003	Applications of Linguistics
ESL	3033	Foundations of English as a Second Language
ESL	3053	Literacy in a Second Language

And one of the following:

BBL	3013	Language Analysis and Bilingualism
BBL	3133	Language Development in Bilinguals
ESL	3023	Second Language Teaching and Learning in EC-4
ESL	3063	Second Language Acquisition in Early Adolescence
ESL	4013	Principles of First and Second Language Acquisition

B. 3 semester credit hours of courses on culture and society selected from the following:

BBL	2033	Multiculturalism in the Southwest
BBL	3023	Mexican American Culture
BBL	3033	The Mexican American in the Southwest

C. 3 semester credit hours of courses on language minority education selected from the following:

BBL	3053	Foundations of Bilingual Studies
BBL	4033	Assessment, Learning, and Motivation in Bicultural-Bilingual Classrooms
BBL	4953	Special Studies in Bilingual and Bicultural Studies

To declare a Minor in English as a Second Language, obtain advice, or seek approval of substitutions for course requirements, students should consult an academic advisor in the COEHD Advising and Certification Center.

## COURSE DESCRIPTIONS ENGLISH AS A SECOND LANGUAGE (ESL)

### **3003 Applications of Linguistics**

(3-0) 3 hours credit.

A study of the applications of linguistics to the teaching of a second language in English as a second language and bilingual education programs. Particular attention is given to psycholinguistic and sociolinguistic issues in second language acquisition, and to oral language development, reading, and writing.

### **3023 Second Language Teaching and Learning in EC-4**

(3-0) 3 hours credit.

Application of principles of second language acquisition to promote language and academic development in Pre-K to fourth grade classrooms. Attention to the needs of English language learners during the first years of schooling. (Same as ABL 3023. Credit cannot be earned for both ESL 3023 and ABL 3023.)

### **3033 Foundations of English as a Second Language**

(3-0) 3 hours credit.

Introduction to the field of English as a second language, with a focus on program, policies, and placement of English language learners.

### **3053 Literacy in a Second Language**

(3-0) 3 hours credit.

A course on the relationship of reading and writing acquisition to second language development; the design and evaluation of appropriate materials for the teaching of literacy. (Same as ABL 3053. Credit cannot be earned for both ESL 3053 and ABL 3053.)

### **3063 Second Language Acquisition in Early Adolescence**

(3-0) 3 hours credit.

Principles of second language acquisition to promote language and academic development. Attention to the characteristics of English language learning in early adolescence.

### **4003 Approaches to Second Language Teaching**

(3-0) 3 hours credit. Prerequisites: Completion of all requirements for admission to the teacher certification program. Study of instructional strategies and materials for teaching English language learners from beginning to advanced levels of proficiency. Focus on planning and implementing developmentally appropriate ESL instruction in the learner-centered classroom.

### **4013 Principles of First and Second Language Acquisition**

(3-0) 3 hours credit.

Study of processes of first and second language acquisition. Application of this knowledge to promote student's language development in English.

**COURSE DESCRIPTIONS**  
**ENGLISH FOR INTERNATIONAL STUDENTS**  
**(EIS)**

**1063 ESL for International Students: Listening**

(3-0) 3 hours credit.

Development of listening comprehension and related note-taking skills needed in academic settings. (Formerly ESL 1063. Credit cannot be earned for both EIS 1063 and ESL 1063.)

**1073 ESL for International Students: Communicating Effectively**

(3-0) 3 hours credit.

Development of oral discourse, including oral presentation, small group discussion, and pronunciation needed in academic settings. (Formerly ESL 1073. Credit cannot be earned for both EIS 1073 and ESL 1073.)

**1083 Content-based Reading**

(3-0) 3 hours credit.

Development of reading proficiency needed for reading in undergraduate courses. (Includes TSI preparation.)

**1093 Content-based Writing**

(3-0) 3 hours credit.

Development of writing proficiency. Required for undergraduate courses. (Includes TSI preparation.)

**1163 Advanced Oral Communications**

(3-0) 3 hours credit.

Development of oral proficiency skills required for students at the graduate level, including international teaching assistants.

**1183 Advanced Reading Strategies**

(3-0) 3 hours credit.

Development of reading proficiency required for specific areas of study at the graduate level.

**1193 Advanced Writing Strategies**

(3-0) 3 hours credit.

Development of writing proficiency required for specific areas of study at the graduate level.

**COURSE DESCRIPTIONS**  
**ALTERNATIVE BICULTURAL-BILINGUAL STUDIES**  
**(ABL)**

**3023 Second Language Teaching and Learning in EC-4**

(3-0) 3 hours credit. Prerequisite: Admission to the Region 20 ESC Teacher Orientation & Preparation Program (TOPP).

Application of principles of second language acquisition to promote language and academic development in Pre-K to fourth grade classrooms. Attention to the needs of English language learners during the first years of schooling. (Same as ESL 3023. Credit cannot be earned for both ABL 3023 and ESL 3023.)

**3053 Foundations of Bilingual Studies**

(3-0) 3 hours credit. Prerequisite: Admission to the Region 20 ESC Teacher Orientation & Preparation Program (TOPP).

Investigation of the philosophies and theories of schooling in bilingual societies, with focus on language policy and the sociological, psychological, and legal aspects involved. (Same as ESL 3053. Credit cannot be earned for both ABL 3053 and ESL 3053.)

**4073 Language Arts in a Bicultural-Bilingual Program**

(3-0) 3 hours credit. Prerequisite: Admission to the Region 20 ESC Teacher Orientation & Preparation Program (TOPP).

An examination of theories, instructional strategies, texts and materials for biliteracy development in the elementary bilingual classroom. Emphasis on the integrated use of listening, speaking, reading, and writing in content area teaching. Offered in Spanish and English. Twenty-five hours of directed field experience in elementary and or middle school classrooms are required. (Same as BBL 4073. Credit cannot be earned for both ABL 4073 and BBL 4073.)

## DEPARTMENT OF COUNSELING, EDUCATIONAL PSYCHOLOGY, AND ADULT AND HIGHER EDUCATION

The Department of Counseling, Educational Psychology, and Adult and Higher Education provides support work for undergraduate degrees and offers two programs leading to the Masters degree. The Master of Arts in Adult and Higher Education offers the opportunity for advanced study for careers in educational institutions serving adult learners. The Master of Arts degree in Counseling offers the opportunity for advanced study and professional development in the field of counseling. (See the *UTSA Graduate Catalog* for further information.)

### COURSE DESCRIPTIONS EDUCATIONAL PSYCHOLOGY (EDP)

#### **1703 College Success Seminar**

(2-2) 3 hours credit.

Intensive training in the application of essential academic college-level learning theories and strategies. Topics include: self-assessment/goal clarification, time/task management, college textbook reading, lecture note taking, career counseling, library/online research skills, examination preparation, and diversity awareness. Students will engage in critical thinking/problem solving activities, and practice oral, written, and electronic communications skills. Laboratory required.

#### **2113 Development in the Elementary and Middle School Child**

(3-0) 3 hours credit. Prerequisites: Sophomore standing and satisfaction of TSI requirement.

An introduction to the cognitive, psychosocial, sociocultural, psychoanalytic and moral theories of development from birth through adolescence. Topics also include atypical development, exceptionality, and learning challenges. Emphasis is on applications at the elementary school level. (Same as AEP 2113. Credit cannot be earned for both EDP 2113 and AEP 2113.)

#### **3133 Principles of Learning and Classroom Management EC-4**

(3-0) 3 hours credit. Prerequisites: Sophomore standing and satisfaction of TSI requirement.

An introduction to the behavioral, social, cognitive, and constructivist views of learning. Examines various theories and models of classroom organization and management. Included are such topics as motivation, behavior modification, assertive discipline, views of intelligence, self-regulation, multicultural education and assessment, and grading. Emphasis is on the early elementary grades EC-4. (Same as AEP 3133. Credit cannot be earned for both EDP 3133 and AEP 3133.)

#### **3203 Learning and Development in the Secondary School Adolescent**

(3-0) 3 hours credit. Prerequisites: Sophomore standing and satisfaction of TSI requirement.

An introduction to major theories of learning and development, with an emphasis on applications at the secondary level. Topics include individual and group differences, motivation, and secondary-level classroom management. (Same as AEP 3203. Credit cannot be earned for both EDP 3203 and AEP 3203.)

#### **3303 Principles of Learning and Classroom Management (Grades 4-8)**

(3-0) 3 hours credit. Prerequisites: Sophomore standing and satisfaction of TSI requirement.

An introduction to the behavioral, social, cognitive, and constructivist views of learning. Examines various theories and models of classroom organization and management. Included are such topics as motivation, behavior modification, assertive discipline, views of intelligence, self-regulation, multicultural education, assessment, and grading. Emphasis is on the middle elementary grades 4 through 8. (Same as AEP 3303. Credit cannot be earned for both EDP 3303 and AEP 3303.)

- 4203 Assessment and Evaluation**  
 (3-0) 3 hours credit. Prerequisites: Completion of all requirements for admission to the teacher certification program, including but not limited to satisfaction of the TSI requirement, and completion of EDU 2103 and EDP 3203 or EDP 3303.  
 This course will discuss the principles and techniques necessary to develop sound assessment strategies. The primary focus of the course will be on the creation of test items, administration of classroom evaluation procedures, and the roles of testing, measurement, and evaluation in daily classroom practice. The use and interpretation of standardized tests, alternative assessments, and norm- and criterion-referenced assessments will also be discussed as well as theoretical and ethical issues related to testing and evaluation. Restricted course; advisor code required for registration.
- 4913 Independent Study**  
 3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, the Department Chair, and the Dean of the College in which the course is offered.  
 Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.
- 4953 Special Studies in Educational Psychology**  
 (3-0) 3 hours credit. Prerequisite: Consent of instructor.  
 Organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.
- 4993 Honors Thesis**  
 3 hours credit. Prerequisites: Enrollment limited to Honors College students during the last two semesters with sponsorship by a department faculty member.  
 Supervised research and preparation for an honors thesis. May be repeated once with advisor's approval.

**COURSE DESCRIPTIONS**  
**ALTERNATIVE EDUCATIONAL PSYCHOLOGY**  
**(AEP)**

- 2113 Development in the Elementary and Middle School Child**  
 (3-0) 3 hours credit. Prerequisite: Admission to the Region 20 ESC Teacher Orientation & Preparation Program (TOPP).  
 An introduction to the cognitive, psychosocial, sociocultural, psychoanalytic, and moral theories of development from birth through adolescence. Topics also include atypical development, exceptionality, and learning challenges. Emphasis is on applications at the elementary school level. (Same as EDP 2113. Credit cannot be earned for both AEP 2113 and EDP 2113.)
- 3133 Principles of Learning and Classroom Management EC-4**  
 (3-0) 3 hours credit. Prerequisite: Admission to the Region 20 ESC Teacher Orientation & Preparation Program (TOPP).  
 An introduction to the behavioral, social, cognitive, and constructivist views of learning. Examines various theories and models of classroom organization and management. Included are such topics as motivation, behavior modification, assertive discipline, views of intelligence, self-regulation, multicultural education and assessment, and grading. Emphasis is on early elementary grades EC-4. (Same as EDP 3133. Credit cannot be earned for both AEP 3133 and EDP 3133.)

**3203 Learning and Development in the Secondary School Adolescent**

(3-0) 3 hours credit. Prerequisite: Admission to the Region 20 ESC Teacher Orientation & Preparation Program (TOPP).

An introduction to major theories of learning and development, with an emphasis on applications at the secondary level. Topics include individual and group differences, motivation, and secondary-level classroom management. (Same as EDP 3203. Credit cannot be earned for both AEP 3203 and EDP 3203.)

**3303 Principles of Learning and Classroom Management (Grades 4–8)**

(3-0) 3 hours credit. Prerequisite: Admission to the Region 20 ESC Teacher Orientation & Preparation Program (TOPP).

An introduction to the behavioral, social, cognitive, and constructivist views of learning. Examines various theories and models of classroom organization and management. Included are such topics as motivation, behavior modification, assertive discipline, views of intelligence, self-regulation, multicultural education, assessment, and grading. Emphasis is on middle elementary grades 4 through 8. (Same as EDP 3303. Credit cannot be earned for both AEP 3303 and EDP 3303.)

## DEPARTMENT OF EDUCATIONAL LEADERSHIP AND POLICY STUDIES

The Department of Educational Leadership and Policy Studies prepares educators to become transformational leaders who can work effectively in diverse, ambiguous, and challenging contexts. The goals of this transformational leadership include equity, excellence, social justice, democracy, risk-taking, and responsiveness to community needs. Faculty in the Department of Educational Leadership and Policy Studies are strongly committed to developing collaborative and responsive relationships with area schools and communities. The Department offers the Master of Arts Degree in Education with an Educational Leadership Concentration and the Doctor of Education Degree in Educational Leadership.

### COURSE DESCRIPTIONS EDUCATIONAL LEADERSHIP (EDL)

#### 4911-3 Independent Study

1 to 3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, the Department Chair or Division Director, and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

#### 4953 Special Studies in Educational Leadership

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

Organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of the discipline, will apply to a bachelor's degree.

#### 4993 Honors Thesis

3 hours credit. Prerequisites: Enrollment limited to Honors College students during the last two semesters with sponsorship by a department faculty member.

Supervised research and preparation for an honors thesis. May be repeated for credit once with advisor's approval.

### COURSE DESCRIPTIONS EDUCATION (EDU)

#### 2103 Education in U.S. Society

(3-0) 3 hours credit. Prerequisites: Sophomore standing and passing scores on all three sections of a Texas Success Initiative approved assessment instrument.

Study of education as a social, economic, and political force in our nation's development. Contemporary issues are related to their historical antecedents in order to demonstrate education's role in U.S. society. Topics discussed include the development and structure of U.S. schooling and sociopolitical, philosophical, and ethical aspects of education. (Formerly EDU 3103. Credit cannot be earned for both EDU 2103 and EDU 3103.)

#### 4911-3 Independent Study

1 to 3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Department Chair, and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4953 Special Studies in Education**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

Organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of the discipline, will apply to a bachelor's degree.

## **DEPARTMENT OF HEALTH AND KINESIOLOGY**

The Department of Health and Kinesiology offers Bachelor of Science degrees for students majoring in Health and Kinesiology.

Students pursuing a Bachelor of Science in Health will select a specialization in community health or school health. Those completing the school health program will be certified to teach grades 8–12. Other specializations may be available for individuals interested in different health careers. The community health specialization prepares students for health careers in public, private, and voluntary health agencies. Students interested in teaching health are required to seek teacher certification as required by the State Board for Educator Certification. All health specializations require both academic coursework and practical experience via student teaching or an internship. Students interested in pursuing a major or minor in Health are required to consult with the department academic advisor.

Students pursuing a Bachelor of Science degree in Kinesiology will select a specialization in physical education, exercise science, or youth sport management. Other specializations may be created for students interested in different kinesiology careers. The physical education specialization provides students the academic and professional experience as required by the State Board for Educator Certification. To be certified as a teacher by the State of Texas, a student must complete his or her coursework, have practical teaching experience (student teaching), and pass the Texas Examinations of Educator Standards (TExES) examination. The graduate of this program will then be certified to teach physical education in grades Pre-Kindergarten–12. Students with a specialization in exercise science are trained for careers in exercise physiology, clinical exercise, and fitness programming in corporate, commercial, and public settings. Students with a specialization in youth sports management are trained for leadership positions in public and private youth sport organizations.

### **DEPARTMENT HONORS**

The Department of Health and Kinesiology awards Department Honors to certain outstanding students and provides the opportunity for advanced study under close faculty supervision.

Selection of honors designation is based on the student's academic performance and recommendation by the faculty of the student's major discipline. To be eligible for the program, students must have a minimum overall grade point average of 3.0 at UTSA and a minimum grade point average of 3.5 in their major at UTSA. The minimum grade point averages must be maintained for students to receive the approval of the Department Honors Committee and the discipline faculty. Students applying for Department Honors are expected to enroll in the appropriate honors thesis course during their final two semesters. The completed thesis must be approved by the supervising faculty sponsor and another departmental faculty member. Students interested in this program should contact their professors for additional information.

### **Bachelor of Science Degree in Health**

This program provides students with the opportunity to pursue a Bachelor of Science degree in Health for students interested in careers in community health and school health (teacher certification). All degree core, designated electives, and support work must be completed with a grade of "C" or better.

Academic advising for students seeking the degree is available in the College of Education and Human Development Advising and Certification Center.

**Core Curriculum requirements:** Students seeking the Bachelor of Science degree in Health, regardless of the area of specialization they choose, must fulfill University Core Curriculum requirements. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) BIO 1113 (& 1122 as support work) Any additional three hours listed under the Level 2 section in the list of core courses will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

The minimum number of semester credit hours for this degree, including the Core Curriculum requirements, is 124, at least 45 of which must be at the upper-division level.

All candidates for the degree must complete the following degree requirements in addition to the Core Curriculum requirements.

**Degree Core Requirements (36 semester credit hours of required health courses):**

HTH	2513	Personal Health Management
HTH	2523	First Aid and Safety
HTH	3503	Foundations of Health Theory
HTH	3513	Issues in Community Health
HTH	3523	Worksite Health Promotion
HTH	3533	Drugs and Health
HTH	3543	Growth and Development

HTH	3553	Emotional Wellness
HTH	4503	Human Disease and Epidemiology
HTH	4513	Consumer Health
HTH	4523	Understanding Human Sexuality
HTH	4533	Nutrition and Health

Designated Electives (30 semester credit hours)

Students must select 30 semester credit hours of coursework that constitute a coherent, focused plan of study. That plan of study must be approved by the department faculty advisor. Students are encouraged to establish an approved plan of study as early in the program as possible. The department has given preapproval to the following plans of study for specializations in community health and school health.

**Community Health.** HTH 4936, MGT 3013, and 21 hours from the following: HTH 2133, HTH 3563, HTH 4953, MGT 3023, MKT 3013, POL 3293, POL 3553, POL 3603, PSY 2533, PSY 4253, SOC 2013, SOC 3163, SOC 3203, SOC 3213 or 3423, and others in ANT and BBL by approval of the department advisor ONLY.

**School Health.** (Grades 8–12) C&I 4203, C&I 4646, HTH 3563, EDU 2103, EDP 3203, EDP 4203, RDG 3773, and 6 hours from the following: HTH 2133, HTH 4953, PSY 2533, PSY 4253, SOC 3163, or SOC 3423.

C&I 4203, EDP 4203, and RDG 3773 are restricted classes. Advisor codes for these classes will be issued only if all prerequisites have been completed. C&I 4203 and RDG 3773 are offered during daytime hours only.

Support Work (16 semester credit hours of required support work):

AHS	2083	Human Biology: Anatomy
AHS	2091	Human Biology: Anatomy Laboratory (or BIO 2123 & 2132)
AHS	2103	Human Biology: Physiology
AHS	2111	Human Biology: Physiology Laboratory (or BIO 3413 & 3422)
BIO	1122	Laboratory Investigations in Biology
COM	1053	Business & Professional Speech
KIN	2003	Computer Applications in Kinesiology and Health

## Minor in Health

All students pursuing the Minor in Health **must** complete 18 semester credit hours.

HTH	2513	Personal Health Management
HTH	3503	Foundations of Health Theory
HTH	3533	Drugs and Health
HTH	4503	Human Disease and Epidemiology
HTH	4523	Understanding Human Sexuality
HTH	4533	Nutrition and Health

To declare a Minor in Health or to obtain advice, students should consult an advisor in the College of Education and Human Development Advising and Certification Center.

## Bachelor of Science Degree in Kinesiology

This program provides students with the opportunity to pursue a Bachelor of Science degree in Kinesiology. Students are prepared for careers in teaching physical education (K-12), exercise science, or youth sports management. All degree core and designated electives must be completed with a grade of “C” or better.

Academic advising for students seeking the Kinesiology degree is available in the College of Education and Human Development Advising and Certification Center.

All candidates for the degree must complete the following:

**Core Curriculum requirements:** Students seeking the Bachelor of Science degree in Kinesiology must fulfill University Core Curriculum requirements. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) BIO 1113 (& 1122 as support work) Any additional three hours listed under the Level 2 section in the list of core courses will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

The minimum number of semester credit hours for this degree, including the Core Curriculum requirements, is 123, of which at least 39 must be at the upper-division level.

**Degree Core Requirements (24 semester credit hours):**

KIN	2003	Computer Application for Kinesiology and Health
KIN	2123	Fitness and Wellness Concepts
KIN	2303	Cultural and Scientific Foundations
KIN	3103	Motor Development
KIN	3313	Anatomy & Physiology for Kinesiology
KIN	3323	Biomechanics
KIN	3433	Exercise Physiology
KIN	4403	Motor Learning

**Designated Electives (58 semester credit hours):**

Students must select 58 semester credit hours of coursework that constitute a coherent, focused plan of study. That plan of study must be approved by the department faculty advisor. Assistance in course selection and plan development is available from the COEHD Advising and Certification Center. Students are encouraged to establish an approved plan of study as early in the program as possible. The department has given preapproval to the following plans of study for specializations in physical education, exercise science, and youth sports management.

**Physical Education.** COM 1053, EDU 2103, EDP 3203, HTH 2523, KIN 2421, KIN 2423, KIN 3001, KIN 3011, KIN 3021, KIN 3031, KIN 3041, KIN 3051, KIN 3061, KIN 3071, KIN 3081, KIN 3303, KIN 3413, KIN 4113, KIN 4123, KIN 4203, KIN 4303, KIN 4343, KIN 4413, KIN 4423, and RDG 3773.

EDP 3203, KIN 4203, KIN 4303, and RDG 3773 are restricted classes. Advisor codes for these classes will be issued only if all prerequisites have been completed.

**Exercise Science.** AHS 2083, AHS 2091, AHS 2103, AHS 2111, BIO 1122, COM 1053, HTH 2523, KIN 3051, KIN 3071, KIN 3303, KIN 3443, KIN 4023, KIN 4233, KIN 4253, KIN 4936, KIN 4943, KIN 4991, and 15 hours of electives.

**Youth Sport Management.** ACC 2003 (or ACC 2013), KIN 2423, KIN 3011, KIN 3021, KIN 3031, KIN 3041, KIN 3203, KIN 3213, KIN 3413, KIN 4123, KIN 4213, KIN 4413, KIN 4423, KIN 4936, MKT 3013, NPO 3003, and 15 hours of electives.

**Student Teaching Component**

The following student teaching requirement is not required for the degree in Kinesiology. Student teaching or an alternative to student teaching is required in order to meet the experiential requirements of the teacher certificate.

C&I 4666 Student Teaching: All Level Physical Education

**COURSE DESCRIPTIONS**  
**HEALTH**  
**(HTH)**

**1001 Freshman Topics in Health**

(1-1) 1 hour credit.

Required for entering freshmen in the College of Education and Human Development with fewer than 15 hours of coursework and who are interested in majoring in Health. Critical study of topics in health. Innovative classroom and learning techniques are used to introduce students to these topics and to help strengthen critical thinking, problem-solving, and writing skills. A maximum of 3 semester credit hours of freshman topics courses may apply to a bachelor's degree, although this specific topic may be taken only once.

**2133 Health and Environmental Safety**

(3-0) 3 hours credit.

This course is designed to provide teacher certification students with developmentally appropriate knowledge and skills in health and environmental safety. It will address health-related issues in personal, interpersonal, and community settings. It will also teach students how to create a safe teaching environment.

**2513 Personal Health Management**

(3-0) 3 hours credit.

Emphasizes the concept of mind, body, and spirit as necessary components of total well-being; principles of preventive health; and self-responsibility for personal health behaviors. [TCCN: PHED 1304.]

**2523 First Aid and Safety**

(3-0) 3 hours credit.

Study and practices of current first aid and safety skills. Emphasis on application of skills in emergency situations. Upon successful completion of this course the student will be eligible for certification in first aid and CPR. (Credit cannot be earned for both HTH 2523 and KIN 3213.) [TCCN: PHED 1306.]

**3003 Survey of Drugs and Health**

(3-0) 3 hours credit.

Study of the use and abuse of drugs and other substances. Examines addiction, dependence, tolerance, motivation for use, and effects of substance abuse on health and society. Non-Health majors and minors only.

**3013 Survey of Human Nutrition**

(3-0) 3 hours credit.

An overview approach to understanding the principles of nutrition and their effect on health and fitness. Non-Health and Kinesiology majors and minors only.

**3023 Survey of Human Sexuality**

(3-0) 3 hours credit.

Study of the psychosocial and physical aspects of human sexuality and their impact on our lives. Non-Health majors and minors only.

**3503 Foundations of Health Theory**

(3-0) 3 hours credit.

Designed for the health education major to provide an overview of current trends, research, literature, and health behavior models. Course is a survey of the profession of health education and the competencies required of health educators.

**3513 Issues in Community Health**

(3-0) 3 hours credit. Prerequisite: HTH 3503.

Study of community health problems and the function and organization of public, private, and voluntary health agencies, application of health theories and models and program planning methods.

**3523 Worksite Health Promotion**

(3-0) 3 hours credit. Prerequisite: HTH 3503.

Organization, administration, and supervision of health programs in the community, school, business, or industry setting. Application of health theories, models and program planning methods is required.

**3533 Drugs and Health**

(3-0) 3 hours credit. Prerequisites: completion of Core science requirements, anatomy and physiology, HTH 2513 and HTH 3503.

Study of the use and abuse of drugs and other substances. Examines addiction, dependence, tolerance, motivation for use, and effects of substance abuse on health and society. Application of theories and models for program development, implementation and evaluation. Health majors and minors only.

- 3543 Growth and Development**  
(3-0) 3 hours credit.  
Physical, social, and psychological development throughout the life cycle. Emphasis on changes in early adolescence and their implications for health professionals.
- 3553 Emotional Wellness**  
(3-0) 3 hours credit.  
Practical application of techniques for shaping healthier emotional behavior; emphasis on personality, stress management, and fulfilling relationships.
- 3563 Child and Adolescent Health Promotion**  
(3-0) 3 hours credit. Prerequisites: HTH 2133 and HTH 3503.  
Designed for students who are interested in promoting the health of youth, as well as those students pursuing academic training in Elementary and Secondary Education, and School and community practitioners. The primary goal of this course is to improve the health literacy of teachers and health promotion specialists through understanding and application of evidence-based child and adolescent health promotion concepts.
- 4503 Human Disease and Epidemiology**  
(3-0) 3 hours credit. Prerequisites: completion of Core science requirements (levels 1 and 2), anatomy and physiology, and HTH 2513.  
An in-depth look at the etiology, prevention, and treatment of chronic and contagious diseases afflicting humans and epidemiological methods.
- 4513 Consumer Health**  
(3-0) 3 hours credit.  
Study of the consumer's selection of health products and services, and the acquisition of basic knowledge for making responsible decisions when selecting professional health care services and products.
- 4523 Understanding Human Sexuality**  
(3-0) 3 hours credit. Prerequisites: completion of Core science requirements (levels 1 and 2), anatomy and physiology, HTH 2513, and HTH 3503.  
Study of the psychosocial and physical aspects of human sexuality and their impact on our lives. Application of theories and models for program development, implementation and evaluation. Health majors and minors only.
- 4533 Nutrition and Health**  
(3-0) 3 hours credit. Prerequisites: completion of Core science requirements (levels 1 and 2), anatomy and physiology, core math requirement, HTH 2513 or KIN 2123, and HTH 3503 or KIN 2303.  
A practical approach to understanding the principles of nutrition and their effect on health and fitness. Application of theories and models for program development, implementation, and evaluation. Health and Kinesiology majors and minors.
- 4543 Environmental Health and Safety**  
(3-0) 3 hours credit.  
Intensive coverage of the aspects of a human being's health and safety in a changing environment. Considers applicable factors of ecology, including problems related to water, waste, pesticides, foods, radiation, population, and other aspect of the total ecosystem, as well as personal and occupational safety within these parameters.
- 4911-3 Independent Study**  
1 to 3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Department Chair, and Dean of the College in which the course is offered.  
Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4936 Internship in Health**

6 hours credit. Prerequisites: 18 semester credit hours of health coursework and consent of advisor.

The opportunity for work experience in a private or public health-related agency. Opportunities are developed in consultation with faculty advisor and on-site coordinator. No more than 6 semester credit hours of internship will apply to a bachelor's degree. (Credit cannot be earned for both HTH 4936 and KIN 4936.)

**4953 Special Studies in Health**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

Organized course offering the opportunity for specialized study in an area of health not available as part of the regular course offerings. Special studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4993 Honors Thesis**

3 hours credit. Prerequisites: Enrollment limited to candidates for honors in the Department of Health and Kinesiology during the last two semesters; consent of the Honors College.

Supervised research and preparation of an honors thesis. May be repeated once for credit with advisor's approval.

**COURSE DESCRIPTIONS  
KINESIOLOGY  
(KIN)**

**1001 Individual Physical Activities**

(0-3) 1 hour credit.

Practice in the techniques of individual physical activities. Sections focus on particular sports or fitness activities as indicated in the Schedule of Classes. May be repeated for credit, but no more than 6 semester credit hours of KIN 1001 alone or in combination with KIN 1101, will apply to a bachelor's degree.

**1011 Freshman Topics in Kinesiology**

(1-1) 1 hour credit.

Required for entering freshmen in the College of Education and Human Development with fewer than 15 hours of coursework and who are interested in majoring in Kinesiology. Critical study of topics in Kinesiology. Innovative classroom and learning techniques are used to introduce students to these topics and to help strengthen critical thinking, problem solving, and writing skills. A maximum of 3 semester credit hours of freshman topics courses may apply to a bachelor's degree, although this specific topic may be taken only once.

**1101 Team Sports**

(0-3) 1 hour credit.

Practice in the techniques of team sports. Sections focus on particular sports as indicated in the Schedule of Classes. May be repeated for credit, but no more than 6 semester credit hours of KIN 1101 alone or in combination with KIN 1001, will apply to a bachelor's degree.

**2003 Computer Applications in Kinesiology and Health**

(3-0) 3 hours credit. Prerequisite: KIN 2303 or HTH 3503.

Application of computer and multimedia technology in Kinesiology and Health disciplines. (Formerly KIN 3003. Credit cannot be earned for both KIN 2003 and KIN 3003.)

**2123 Fitness and Wellness Concepts**

(3-0) 3 hours credit.

This course is designed to provide students with developmentally appropriate knowledge and skill in health and fitness. The course will address health-related issues in personal, interpersonal, and community settings. (Formerly IDS 2123. Credit cannot be earned for both KIN 2123 and IDS 2123.) [TCCN: PHED 1338.]

- 2303 Cultural and Scientific Foundations**  
(3-0) 3 hours credit.  
Study of philosophy, ethics, sociology, scientific areas, and current concepts relevant to the discipline of kinesiology. [TCCN: PHED 1301.]
- 2421 Outdoor Activities and Lifetime Sports**  
(1-2) 1 hour credit. Prerequisite: HTH 2523.  
Practice in outdoor activities and life sports. Weekend class field trips required. Laboratory fee will be assessed. (Formerly KIN 2433. Credit cannot be earned for both KIN 2421 and KIN 2433.)
- 2423 Management and Organization in Kinesiology and Sports**  
(3-0) 3 hours credit.  
Introduction to concepts and skills that will prepare the student to become an effective leader of physical fitness, sport and health, and physical education programs. [TCCN: PHED 1336.]
- 3001 Skill Analysis in Physical Activity: Individual Activities**  
(1-2) 1 hour credit. Prerequisite: KIN 3413.  
Practice in delivering developmentally appropriate physical activity instruction in a variety of selected individual activities such as golf, bowling, tumbling. (Formerly KIN 2001. Credit cannot be earned for both KIN 3001 and KIN 2001.)
- 3011 Skill Analysis in Physical Activity: Team Sports I**  
(1-2) 1 hour credit. Prerequisite: KIN 3413.  
Practice in delivering developmentally appropriate physical activity instruction in a variety of selected team sports, such as basketball, soccer, and baseball/softball. (Formerly KIN 2101. Credit cannot be earned for both KIN 3011 and KIN 2101.)
- 3021 Skill Analysis in Physical Activity: Team Sports II**  
(1-2) 1 hour credit. Prerequisite: KIN 3413.  
Practice in delivering developmentally appropriate physical activity instruction in a variety of selected team sports, such as football, volleyball, and team handball. (Formerly KIN 2101. Credit cannot be earned for both KIN 3021 and KIN 2101.)
- 3031 Skill Analysis in Physical Activity: Dual Sports**  
(1-2) 1 hour credit. Prerequisite: KIN 3413.  
Practice in delivering developmentally appropriate physical activity instruction in a variety of selected dual sports, such as badminton, tennis and handball. (Formerly KIN 2201. Credit cannot be earned for both KIN 3031 and KIN 2201.)
- 3041 Skill Analysis in Physical Activity: Track and Field**  
(1-2) 1 hour credit. Prerequisite: KIN 3413.  
Specialized activity instruction involving skills, drills, rules, regulations, and skill performance in a variety of selected track and field events. (Formerly KIN 2301. Credit cannot be earned for both KIN 3041 and KIN 2301.)
- 3051 Aerobic Fitness Instruction**  
(1-2) 1 hour credit.  
Practice in delivering a variety of appropriate fitness and wellness activities for children and adults. (Formerly KIN 2401. Credit cannot be earned for both KIN 3051 and KIN 2401.)
- 3061 Rhythmical Activities and Dance**  
(1-2) 1 hour credit. Prerequisite: KIN 3413.  
Delivering appropriate rhythmical and dance techniques. (Formerly KIN 2411. Credit cannot be earned for both KIN 3061 and KIN 2411.)

**3071 Musculoskeletal Fitness Instruction**

(1-2) 1 hour credit.

Instructional techniques applied to resistance training, plyometrics, flexibility, and musculoskeletal conditioning activities.

**3081 Innovative Games and Movement Activities**

(1-2) 1 hour credit. Prerequisite: KIN 3413.

A study of the critical elements for incorporating basic motor skills into creative activities. Students will learn to deliver lead-up games for nontraditional as well as traditional individual, dual, and team sports. Included are games and activities using developmentally appropriate skills and current trends in kinesiology.

**3103 Motor Development**

(3-0) 3 hours credit. Prerequisite: KIN 2303 or HTH 3503.

A study of motor, physical, and neuromuscular development across the human life span. Effects of social, cognitive, growth and maturation, and aging factors on motor development will be addressed. Some fieldwork experience may be required. (Formerly KIN 4103. Credit cannot be earned for both KIN 3103 and KIN 4103.)

**3203 Sport Officiating**

(3-0) 3 hour credit. Prerequisites: KIN 2303, KIN 2423, KIN 3011, KIN 3021, KIN 3031, and KIN 3413.

A study of the rules of various sports, the requirements and roles of officiating sport. Some fieldwork experience may be required.

**3213 Sport First Aid**

(3-0) 3 hour credit Prerequisite: KIN 2303.

Study and application of first aid in sport and exercise environments. Upon successful completion of this course the student will be eligible for certification in first aid, CPR, and sport first aid. (Credit cannot be earned for both KIN 3213 and HTH 2523.)

**3303 Athletic Injuries and Training Procedures**

(3-0) 3 hours credit. Prerequisites: KIN 3313 and HTH 2523 or KIN 3213.

Prevention and care of athletic injuries. A study of training and conditioning for the team and individual. Techniques and procedures for emergencies: diagnostic, preventive, and remedial measures. Organization of the training room facility.

**3313 Anatomy and Physiology for Kinesiology**

(2-2) 3 hours credit. Prerequisite: KIN 2303 or HTH 3503.

Study of human anatomy and physiology of the cardiovascular, respiratory, musculoskeletal, nervous, and endocrine systems. Emphasis will be placed on anatomy and physiology used in the science of kinesiology.

**3323 Biomechanics**

(3-1) 3 hours credit. Prerequisite: KIN 3313.

The study of the human body in sports motion and sport objects in motion. The application of mechanical principles, kinematics, and kinetics.

**3413 Tactics**

(3-0) 3 hours credit. Prerequisite: KIN 2303.

Development, organization, and delivery of appropriate physical activities for children through the adolescent stage. Some fieldwork observation experiences may be required.

**3433 Exercise Physiology**

(3-1) 3 hours credit. Prerequisites: KIN 3313 or AHS 2103 and AHS 2111.

A study of the adaptation and effects of the body to physiological stress. Emphasis will be placed on the physiology of training, metabolism and work capacity, and electrocardiography. (Formerly HTH 4133. Credit cannot be earned for both KIN 3433 and HTH 4133.)

- 3443 Fitness Testing and Exercise Prescription**  
(3-1) 3 hours credit. Prerequisite: KIN 3433.  
A study and application of the principles and concepts of fitness measurement and exercise programming. Topics include graded exercise testing, electrocardiography, assessment of aerobic capacity, body composition, flexibility, muscular strength, and muscular endurance. This course includes mandatory attendance and participation in laboratory activities. An individual fitness requirement is required for passing the course.
- 4023 Exercise Psychology**  
(3-0) 3 hours credit. Prerequisite: KIN 2303.  
An investigation of psychological processes and behaviors related to participation in exercise and physical activities. Psychological effects of exercise, motives for fitness, exercise adherence, and fitness counseling.
- 4113 Evaluation**  
(3-0) 3 hours credit. Prerequisites: KIN 2003, MTC 1023 or STA 1053.  
Application of test, measurement, and evaluation theory. Emphasis is on proper selection and administration of tests, appropriate evaluation of test results using basic statistical procedures, and assignment of grades.
- 4123 Psychosocial Aspects of Exercise and Sport**  
(3-0) 3 hours credit. Prerequisite: KIN 2303.  
A study of human behavior in exercise and sport. Motivation in sport, performance enhancement, sport personality, exercise adherence, and cognitive and affective effects of exercise.
- 4143 Advanced Athletic Training**  
(2-2) 3 hours credit. Prerequisite: KIN 3303.  
This course deals in depth with issues related to athletic training, including assessment of injuries, and proper taping and wrapping techniques. A two-hour laboratory will accompany this class. Laboratory fee will be assessed.
- 4203 Teaching Secondary Physical Education**  
(3-1) 3 hours credit. Prerequisite: KIN 4343.  
Examination of current trends, issues, and pedagogical approaches to the teaching and learning of physical education in the Secondary school curriculum. Contemporary programming, behavior management strategies, and community outreach activities will be emphasized. Twenty-five hours of directed field experiences at the secondary school level are required. Restricted course; advisor code required for registration.
- 4213 Sport Law**  
(3-0) 3 hour credit. Prerequisites: KIN 2303, KIN 2423, KIN 3011, KIN 3021, KIN 3031, and KIN 3413.  
A study of law relating to sport and exercise participation, access, liability, contracts, antitrust, risk management, and tort.
- 4223 Advanced Topics in Exercise and Sport Psychology**  
(3-0) 3 hours credit. Prerequisite: KIN 4023 or KIN 4123.  
In-depth study of exercise and sport psychology, emphasizing research methods, theoretical models, performance enhancement techniques and professional issues.
- 4233 Advanced Topics in Exercise Physiology and Fitness Testing**  
(2-2) 3 hours credit. Prerequisite: KIN 3433.  
In-depth study of exercise physiology, emphasizing application of physiological principles of training for physical fitness and sport performance, graded exercise testing, and professional issues.
- 4243 Musculoskeletal and Cardiopulmonary Rehabilitation**  
(2-2) 3 hours credit. Prerequisites: KIN 3443 and KIN 3303.  
This course examines various therapeutic exercise modalities and programs used in the treatment and rehabilitation of athletic injuries, cardiovascular and pulmonary diseases.

**4253 Exercise Nutrition**

(3-0) 3 hours credit. Prerequisite: KIN 3433.

Study of the nutritional aspects of exercise, sport and health. The course includes examination of macronutrients, micronutrients, water, ergogenic aids, and supplements consumed for exercise and sport.

**4303 Teaching Elementary Physical Education**

(3-1) 3 hours credit. Prerequisite: KIN 4343.

Examination of current trends, issues, and pedagogical approaches to teaching and facilitating learning of physical education in the Elementary school curriculum. Contemporary programming, problem solving, and community outreach activities will be emphasized. Twenty-five hours of directed field experiences at the elementary school level are required. Restricted course; advisor code required for registration.

**4343 Movement Awareness**

(3-0) 3 hours credit. Prerequisite: KIN 3413.

Study of concepts of movement awareness and the elements of movement that are the basis of all movement capacities. Application of these concepts to the learning of motor skills will be included.

**4403 Motor Learning**

(3-1) 3 hours credit. Prerequisites: KIN 3103 and KIN 3313.

Functional applications of motor control and learning theory in skill instruction and sports performance. Motor learning laboratory required.

**4413 Coaching Athletics**

(3-0) 3 hours credit. Prerequisites: KIN 2303, KIN 3011, KIN 3021, KIN 3031, and KIN 3413.

Theory of coaching relevant to athletics. Emphasis on organization and content involved in coaching sports. The sport content may vary in different semesters between baseball, basketball, football, soccer, softball, and volleyball. Course may be repeated for credit.

**4423 Developmental/Adapted Physical Activity**

(3-1) 3 hours credit. Prerequisite: KIN 3103 or consent of instructor.

A developmental and functional approach to the study of disabilities in physical activity. Legislation, pathologies, and adaptation principles. Fifteen hours of directed field experience.

**4911-3 Independent Study**

1 to 3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Department Chair, and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but no more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4936 Internship in Kinesiology**

6 hours credit. Prerequisite: Consent of instructor.

Supervised internship with appropriate agency in the field of kinesiology and sport management.

**4943 Practicum in Kinesiology**

3 hours credit. Prerequisite: Consent of instructor.

Supervised practicum with appropriate agency in the field of kinesiology. May be repeated for credit to a maximum of 6 semester credit hours.

**4953 Special Studies**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

Organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but no more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4991 Applied Exercise Science**

(1-0) 1 hour credit. Prerequisites: KIN 3313, KIN 3323, KIN 3433, KIN 3443, KIN 4233, KIN 4253, and KIN 4403. Capstone course and seminar for students pursuing training and certification in exercise science, and preparation for graduate studies.

**4993 Honors Thesis**

3 hours credit. Prerequisites: Enrollment limited to candidates for honors in the Department of Health and Kinesiology during the last two semesters; consent of the Honors College. Supervised research and preparation of an honors thesis. May be repeated once for credit with advisor's approval.

## DEPARTMENT OF INTERDISCIPLINARY STUDIES AND CURRICULUM AND INSTRUCTION

### Bachelor of Arts Degree in Interdisciplinary Studies

#### Degree Only Option

The Department of Interdisciplinary Studies and Curriculum and Instruction offers a Bachelor of Arts in Interdisciplinary Studies. The Bachelor of Arts (B.A.) in Interdisciplinary Studies (IDS) degree-only option may be used as preparation for careers in government service or work with youth in a nonteaching capacity, or as an opportunity to prepare for graduate or professional study in areas such as business, counseling, or social work. The minimum number of semester credit hours required for the B.A. in IDS degree-only option, including the Core Curriculum requirements, is 120, at least 39 of which must be at the upper-division level. Students selecting this option also choose an academic specialization. See the section entitled “Degree Program” for a listing of the requirements for this degree.

#### Degree with Certification Options

Students who choose the IDS major can also seek teacher certification. The IDS program is designed to give successful students the opportunity to become teachers who understand their own thinking and learning processes and can successfully foster children’s conceptual, intellectual, and affective growth. Within the Department of Interdisciplinary Studies and Curriculum and Instruction, IDS majors who select a teacher certification option can choose from five options: early childhood–grade 4 generalist certification (EC–4), grades 4–8 generalist certification, grades 4–8 language arts/reading/social studies certification, grades 4–8 mathematics/science certification, or special education EC–12. For additional information regarding requirements for these certifications, students should consult the section of this catalog entitled “Degree Program with Teacher Certification Options.” They should also consult with an advisor in the College of Education and Human Development (COEHD) Advising and Certification Center for information regarding certification requirements and for information on admission to the teacher certification program.

IDS majors seeking **bilingual certification** for EC–4, 4–8, or ESL certification for 4–8 should refer to the section of this catalog entitled Bicultural-Bilingual Studies.

#### Secondary Certification

The Department of Interdisciplinary Studies and Curriculum and Instruction offers coursework required for students seeking secondary certification (grades 8–12). Students seeking certification to teach at the secondary level must obtain a bachelor’s degree in the academic area in which they plan to teach. They should consult with an advisor in the college in which their degree is contained. They should also consult with an advisor in the COEHD Advising and Certification Center for information regarding secondary certification requirements and for information on admission to the teacher certification program. For additional information regarding secondary certification requirements, students should consult the section of this catalog entitled “Secondary Certification Programs.”

### DEPARTMENT HONORS

The Department of Interdisciplinary Studies and Curriculum and Instruction awards Department Honors to certain outstanding students and provides the opportunity for advanced study under close faculty supervision.

Selection for honors designation is based on the student’s academic performance and recommendation by the faculty of the student’s major discipline. To be eligible for the program, students must have a minimum overall grade point average of 3.0 at UTSA and a minimum grade point average of 3.5 in their major at UTSA. The minimum grade point averages must be maintained for students to receive the approval of the Department Honors Committee and the discipline faculty. Students applying for Department Honors are expected to enroll in the appropriate honors thesis course during their final two semesters. The completed thesis must be approved by the supervising faculty sponsor and another departmental faculty member. Students interested in this program should contact their professors for additional information.

## Bachelor of Arts Degree in Interdisciplinary Studies (degree-only option)

The minimum number of semester credit hours required for this degree is 120, at least 39 of which must be at the upper-division level.

*The IDS degree-only option is NOT intended for students who plan to obtain teacher certification. Students who complete the IDS degree-only option and then decide to return to UTSA for teacher certification must complete remaining requirements of the IDS degree with teacher certification.*

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Interdisciplinary Studies must fulfill University Core Curriculum requirements. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

**Degree Requirements (18 semester credit hours):**

IDS	2103	Individual, Family, and Community
IDS	2113	Society and Social Issues
IDS	2203	World Civilization to the Fifteenth Century
IDS	2213	World Civilization since the Fifteenth Century
IDS	2713	Modes of Inquiry across the Fields of Study
IDS	3003	Science and Humanity

**Area of Specialization (18 – 30 semester credit hours):**

One of the following areas of specialization must be selected by the student. Assistance in selection is available from the COEHD Advising and Certification Center. Students are encouraged to select their area of specialization as early in their program as possible.

Listed courses are required unless a choice has been given or unless specifically indicated. Electives should be approved by an academic advisor *before* enrollment.

**Art.** 30 semester credit hours: ART 1003, 1013, 1213, 1223, 2113, 2413, 2713, 3113, 4433, and 4753.

**Bilingual education.** 18 semester credit hours: BBL 3023, 3033 or 3053; BBL 3013 or ESL 3003; BBL 3133; ESL 3023 or 3033 or 3063; and 3 semester credit hours from the following list of courses BBL 3043, 3143, 4033, 4063 or 4073.

**Biology.** 19 semester credit hours: AHS 1053; BIO 1033, 1113, 1122, 3283, and 3292; and 3 hours of upper-division electives in biology.

**Early Childhood Education.** 21 semester credit hours: ECE 2103, ECE 2113, ECE 3313, ECE 3603, ECE 4143, ECE 4203, and RDG 3813.

**English.** 18 semester credit hours: ENG 2263, 3303, and 3333; 9 semester credit hours of electives in English, 6 of which must be at the upper-division level (ENG 4933 may not be used to meet this requirement).

**French.** 18 semester credit hours: FRN 2013 and 2023; FRN 3023, and 9 semester credit hours of upper-division electives in French (FRN 4933 may not be used to meet this requirement).

**Generic special education.** 24 semester credit hours: Coursework for this specialization has been sequenced, and all courses must be taken concurrently during the indicated semester. The sequence begins in the Fall Semester.

Fall	SPE 3603, 3643, and 3653
Spring	SPE 3623, 3633, and 3663
Summer	SPE 4603 and 4653

**Geography.** 18 semester credit hours: GRG 1013, 2613, 2623, 3113, 3153, and 3 semester credit hours of upper-division electives in geography.

**German.** 18 semester credit hours: GER 2013 and 2023; GER 3023 GER 3413 and 6 semester credit hours of upper-division electives in German (GER 4933 may not be used to meet this requirement.)

**History.** 18 semester credit hours: HIS 2053; HIS 2533, 2553, or 2573; HIS 3113, HIS 3443, or HIS 3463; 6 semester credit hours of upper-division electives in U.S. history; and 3 semester credit hours of upper-division electives in non-U.S. history.

**Life-earth science.** 25 to 27 semester credit hours: BIO 1033, 1113, 1122, 3283, and 3292; GEO 1103, 1111, 1123, and 1131; BIO 3003 or GEO 3163; and 1 to 3 semester credit hours of upper-division electives in biology.

**Mathematics.** The Core Curriculum mathematics requirement for this specialization is MAT 1214; 18 semester credit hours are required: MAT 3013, 3123, 3233, 4113, and 4123; STA 1053.

**Music.** A background in music and an audition with music faculty are required before this specialization can be declared. 18 semester credit hours: MUS 1531, 2623, 2683, and 3453; 8 semester credit hours from the following, of which 3 hours must be upper-division: MUS 1521, 2603, 2663, 2673, 3463 (strongly recommended), 3712 (4 hours maximum), and 3721 (2 hours maximum).

**Reading.** 18 semester credit hours: RDG 3513, RDG 3523 or RDG 3813, RDG 3533 or RDG 3823, RDG 3633, RDG 3803, RDG 4733.

**Physical science.** The Core Curriculum mathematics requirement for this specialization is MAT 1214. 26 semester credit hours are required: CHE 1103, 1122, 1303, 1312, 2203, 2204, 2243, and; PHY 1904, 1911, 1924, and 1931.

**Spanish.** The Prochievement examination should be taken before registering for any Spanish specialization coursework. 18 semester credit hours: 6 semester credit hours from SPN 2006, 2013, 2023, 2103, 2513, or 2523; 3 semester credit hours from SPN 3613, 3623, 6 semester credit hours from SPN 3033, 3043, or 3063; and SPN 3113.

### **Electives (33 to 42 semester credit hours)**

Advisors in the COEHD Advising and Certification Center will assist interdisciplinary studies – degree-only majors to use their electives to develop a coherent program of study using existing UTSA course offerings. Possible options include outside fields in business, pre-law, pre dental, and premedical studies.

## **DEGREE PROGRAM WITH TEACHER CERTIFICATION OPTIONS**

**Teacher certification programs address standards of the State Board for Educator Certification. Standards can be found at: [www.sbec.state.tx.us](http://www.sbec.state.tx.us).**

### **Bachelor of Arts Degree in Interdisciplinary Studies (Early Childhood–Grade 4 Generalist Certification Option)**

The minimum number of semester credit hours required for the IDS degree with Early Childhood–Grade 4 generalist certification is 128, at least 39 of which must be at the upper-division level.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Interdisciplinary Studies with teacher certification must fulfill University Core Curriculum requirements. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

<b>Core Curriculum Requirements</b>	<b>Courses that Satisfy Core Curriculum and Degree Requirements</b>
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II

<b>Domain I: Mathematics and Science</b>	<p><b>Mathematics</b> (3 semester credit hours) MTC 1023 College Algebra with Applications</p> <p><b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.</p>
<b>Domain II: Society and Culture</b>	<p><b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>Social and Behavioral Sciences</b> (3 semester credit hours) IDS 2113 Society and Social Issues (recommended)</p> <p><b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b>Literature</b> (3 semester credit hours) Any three hours listed below will satisfy this core requirement. IDS 2303 World Literature I: Through the Sixteenth Century IDS 2313 World Literature II: Since the Sixteenth Century</p> <p><b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed below will satisfy this core requirement. IDS 2203 World Civilization to the Fifteenth Century IDS 2213 World Civilization since the Fifteenth Century</p>

Recommended Course Sequence for Bachelor of Arts degree in Interdisciplinary Studies (Early Childhood–Grade 4 generalist certification option):

Year 1 – Fall	Year 1 – Spring	Year 1 – Summer
Core Curriculum Courses	Core Curriculum Courses	Core Curriculum Courses
Year 2 – Fall	Year 2 – Spring	Year 2 – Summer
MAT 1153 ECE 2103 IDS 2213 COM 2123	MAT 1163 IDS 2713 ECE 3603 RDG 3513	IDS 3203 IDS 3201 EDU 2103
Year 3 – Fall	Year 3 – Spring	Year 3 – Summer
BBL 3403 RDG 3803 IDS 3213 IDS 3211 RDG 3813	C&I 4403 (blocked with RDG 3823) RDG 3823 (blocked with C&I 4403) ECE 4203 EDP 3133 ECE 3313	IDS 3303

Year 4 – Fall	Year 4 – Spring	
ESL 3023 C&I 4303 (blocked with RDG 4733) RDG 4733 (blocked with C&I 4303) ECE 4143	C&I 4616	

**Degree Requirements (47 Semester credit hours):**

## A. 23 semester credit hours of required IDS courses:

## 1. 20 semester credit hours of required courses:

BBL	3403	Cultural and Linguistic Diversity in a Pluralistic Society
IDS	2213	World Civilizations since the Fifteenth Century
IDS	2713	Modes of Inquiry across the Fields of Study
IDS	3201	Physical Science Laboratory
IDS	3203	Physical Science
IDS	3211	Earth & Life Science Laboratory
IDS	3213	Earth & Life Science
IDS	3303	Studies in Exceptionality

## 2. 3 semester credit hours selected from the following:

HTH	2133	Health & Environmental Safety
IDS	2083	Technology for Liberal Arts and Social Sciences
IDS	2103	The Individual, Family, and Community
IDS	2203	World Civilizations to the Fifteenth Century
IDS	2303	World Literature I: Through the Sixteenth Century
IDS	2313	World Literature II: Since the Sixteenth Century
IDS	3653	Music and Related Arts

## B. 24 semester credit hours of required support courses:

## 1. 21 semester credit hours of required courses:

COM	2123	Oral Interpretation
ECE	2103	Child Growth and Development
EDU	2103	Education in U.S. Society
ESL	3023	Second Language Teaching and Learning in EC-4
MAT	1153	Essential Elements in Mathematics I
MAT	1163	Essential Elements in Mathematics II
RDG	3513	Children's Literature

## 2. 3 semester credit hours selected from the following:

ASL	1013	American Sign Language: Basic I
ASL	1023	American Sign Language: Basic II
BBL	3033	The Mexican American in the Southwest
BBL	3023	Mexican American Culture
ECE	2113	Introduction to Early Childhood Education
SPN	2003	Spanish for Elementary Education (Recommended)

**Certification Requirements (39 semester credit hours):**

Students must be admitted to the Teacher Certification Program before enrollment in Certification, Professional Education, and Student Teaching coursework.

## A. 15 semester credit hours required of Early Childhood–Grade 4 Generalist courses:

ECE	3313	Play, Creativity, & Learning EC–4
ECE	3603	Language & Cognitive Development in EC–4
RDG	3803	Writing Development & Processes
RDG	3813	Early Literacy Learning EC–4
RDG	3823	Reading Comprehension EC–4

## B. 24 semester credit hours of Professional Education:

## 1. 18 semester credit hours required:

ECE	4143	Principles & Practices of Inclusive Education EC–4
ECE	4203	Assessment and Evaluation in EC–4
EDP	3133	Principles of Learning & Classroom Management EC–4
RDG	4733	Literacy Problems EC–4

Admission to the Teacher Certification Program is prerequisite to enrollment in the Approaches classes.

C&I	4303	Approaches to Teaching Social Studies, Language Arts, and Fine Arts EC–4
C&I	4403	Approaches to Teaching Mathematics and Science EC–4

## 2. 6 semester credit hours required:

C&I	4616	Student Teaching: EC–Grade 4
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**Bachelor of Arts Degree in Interdisciplinary Studies (Grades 4–8 Generalist Certification Option)**

The minimum number of semester credit hours required for the IDS degree with grades 4–8 generalist certification is 131, at least 39 of which must be at the upper-division level.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Interdisciplinary Studies with teacher certification must fulfill University Core Curriculum requirements. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MTC 1023 College Algebra with Applications <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) IDS 2113 Society and Social Issues (recommended)</p> <p><b><i>Economics</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed below will satisfy this core requirement. IDS 2303 World Literature I: Through the Sixteenth Century IDS 2313 World Literature II: Since the Sixteenth Century</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed below will satisfy this core requirement. IDS 2203 World Civilization to the Fifteenth Century IDS 2213 World Civilization since the Fifteenth Century</p>

**Degree Requirements (66 Semester credit hours):**

## A. 29 semester credit hours of required courses:

BBL	3403	Cultural and Linguistic Diversity in a Pluralistic Society
HTH	2133	Health and Environmental Safety
IDS	2083	Technology for Liberal Arts and Social Sciences
IDS	2103	The Individual, Family, and Community
IDS	2213	World Civilizations since the Fifteenth Century
IDS	2713	Modes of Inquiry Across the Fields of Study
IDS	3201	Physical Science Laboratory
IDS	3203	Physical Science
IDS	3211	Earth and Life Science Laboratory
IDS	3213	Earth and Life Science
IDS	3303	Studies in Exceptionality

## B. 37 semester credit hours of required support courses:

COM	2123	Oral Interpretation
ESL	3063	Second Language Acquisition in Early Adolescence
GRG	1023	World Regional Geography
MAT	1093	Precalculus
MAT	1153	Essential Elements in Mathematics I
MAT	1163	Essential Elements in Mathematics II
MAT	1203	Calculus Concepts and Applications
RDG	3523	Developmental Reading Grades 4–8
RDG	3533	Content Area Reading Grades 4–8
RDG	3633	Literature and Other Texts Across the Content Areas–Grades 4–8
RDG	3803	Writing Development and Processes

Additional 3 semester credit hours in Level I or II Science course in a different discipline from science courses taken for core requirement. One science course must include a wet laboratory that can be met in core requirement: 1 semester credit hour.

**Certification requirements (23 semester credit hours):**

Students must be admitted to the Teacher Certification Program before enrollment in Certification, Professional Education, and Student Teaching coursework.

C&I	4502	Mathematics and Science Integrated Laboratory
C&I	4503	Approaches to Teaching Language Arts, Reading & Social Studies (4–8)
C&I	4603	Approaches to Teaching Mathematics and Science (4–8)
C&I	4626	Student Teaching: 4–8 Generalists
EDP	2113	Development in the Elementary and Middle School Child
EDP	3303	Principles of Learning and Classroom Management (Grades 4–8)
EDU	2103	Education in U.S. Society

Recommended Course Sequence for the Bachelor of Arts Degree in Interdisciplinary Studies (Grades 4–8 generalist certification option):

Year 1 – Fall	Year 1 – Spring	Year 1 – Summer
Core Curriculum Courses	Core Curriculum Courses	Core Curriculum Courses
Year 2 – Fall	Year 2 – Spring	Year 2 – Summer
MAT 1153 IDS 2083 IDS 2213 COM 2123 *RDG 3633	MAT 1163 IDS 2103 IDS 2713 *HTH 2133 GRG 1023	IDS 3203 IDS 3201 EDU 2103 MAT 1093
Year 3 – Fall	Year 3 – Spring	Year 3 – Summer
BBL 3403 *EDP 2113 *MAT 1203 IDS 3213 IDS 3211 *RDG 3523	*C&I 4603 (blocked with RDG 3533) *C&I 4502 *RDG 3533 (blocked with C&I 4603) *ESL 3063	RDG 3803 IDS 3303
Year 4 – Fall	Year 4 – Spring	
*C&I 4503 *EDP 3303	C&I 4626 (student teaching can be done spring or fall)	

\*denotes course is offered only in this semester.

## Bachelor of Arts Degree in Interdisciplinary Studies (Grades 4–8 Language Arts/Reading/Social Studies Certification Option)

The minimum number of semester credit hours required for the IDS degree with grades 4–8 Language Arts/Reading/Social Studies certification is 131, at least 39 of which must be at the upper-division level.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Interdisciplinary Studies with teacher certification must fulfill University Core Curriculum requirements. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) HIS 1043 and HIS 1053 will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) IDS 2113 Society and Social Issues (recommended) <b>Economics</b> (3 semester credit hours) ECO 2013 or ECO 2023 will satisfy this core requirement.
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed below will satisfy this core requirement. IDS 2303 World Literature I: Through the Sixteenth Century IDS 2313 World Literature II: Since the Sixteenth Century <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) IDS 2203 World Civilization to the Fifteenth Century will satisfy this requirement.

### Degree Requirements (71 semester credit hours):

A. 51 semester credit hours of required courses:

BBL	3403	Cultural and Linguistic Diversity
COM	2123	Oral Interpretation
EDP	2113	Development in the Elementary and Middle School Child
EDU	2103	Education in U.S. Society

ENG	3333	Introduction to the Structures of English
ESL	3063	Second Language Acquisition
GRG	1023	World Regional Geography
HIST	2053	Texas History
IDS	2083	Technology for Liberal Arts and Social Studies
IDS	2213	World Civilization Since the Fifteenth Century
IDS	2713	Modes of Inquiry across the Fields of Study
IDS	3303	Introduction to Exceptionalities
RDG	3633	Literature and Other Texts Across the Content Area—Grades 4–8
RDG	3803	Writing Development and Processes

Select 6 hours from the following:

U.S. History

ECO	3183	Economic History of the United States
ECO	3193	The International Economy
HIS	3003	Colonial America and the Formation of American Society
HIS	3023	American Independence and National Unity, 1760–1820
HIS	3043	History of Women in the United States: Pre-Columbus to 1890
HIS	3053	History of Women in the United States: Since 1890
HIS	3073	The Mexican Borderlands/The American Southwest
HIS	3083	History of the American West
HIS	3133	Themes in the Social History of the United States
HIS	3193	The South in American History
HIS	3553	Civil War America
HIS	3573	African American History since the Civil War

Texas History

HIS	3123	Colonial Texas under Spanish and Mexican Rule to 1836
HIS	3493	History of San Antonio

World Civilization

HIS	3263	Seventeenth- and Eighteenth-Century Europe
HIS	3273	The Early Middle Ages
HIS	3303	History of Mexico
HIS	3353	Latin American since Independence
HIS	3503	The Expansion of Europe, 1415–1800
HIS	3603	Africa in Colonial and Post-Colonial Contexts
HIS	3743	Imperial Russia
HIS	3753	The Soviet Union and After
HIS	3903	Modern Japan
HIS	3913	Late Imperial China
HIS	3933	Discovery of India

Select 3 hours from the following:

Geography

GRG	3113	Geography of the United States and Canada
GRG	3123	Geography of Latin America
GRG	3133	Geography of Europe
GRG	3143	Geography of Mexico
GRG	3153	Geography of Texas
GRG	3423	Geopolitics of Russia and Eurasia
GRG	3433	The Geography and Politics of the Asian Rim

B. 20 semester credit hours of required support courses:

IDS	3201	Physical Science Laboratory
IDS	3203	Physical Science
IDS	3211	Earth and Life Science Laboratory
IDS	3213	Earth and Life Science
MAT	1153	Essential Elements in Mathematics I
MAT	1163	Essential Elements in Mathematics II
RDG	3523	Developmental Reading—Grades 4–8
RDG	3533	Content Area Reading—Grades 4–8

**Certification Requirements (18 Semester credit hours):**

Students must be admitted to the Teacher Certification Program before enrollment in Certification, Professional Education, and Student Teacher coursework.

C&I	4513	Approaches to Teaching Language Arts, Reading, and Social Studies
C&I	4523	Approaches to Teaching Language Arts, Writing, and Social Studies
C&I	4686	Student Teaching: 4–8 Language Arts, Reading, and Social Studies
EDP	3303	Principles of Learning and Classroom Management (Grades 4–8)
EDP	4203	Assessment and Evaluation

**Bachelor of Arts Degree in Interdisciplinary Studies (Grades 4–8 Mathematics/Science Certification Option)**

The minimum number of semester credit hours required for the IDS degree with grades 4–8 Mathematics/Science certification option is 131 hours, at least 39 of which must be at the upper-division level.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Interdisciplinary Studies with teacher certification must fulfill University Core Curriculum requirements. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. MTC 1023 College Algebra with Applications (recommended) <b>Science</b> (6 semester credit hours) BIO 1113 Biology I (recommended) BIO 1123 Biology II (recommended) Three hours from Level One and three hours from Level Two will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) HIS 1043 and HIS 1053 will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) IDS 2113 Society and Social Issues (recommended)</p> <p><b><i>Economics</i></b> (3 semester credit hours) ECO 2013 or ECO 2023 will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed below will satisfy this core requirement. IDS 2303 World Literature I: Through the Sixteenth Century IDS 2313 World Literature II: Since the Sixteenth Century</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) IDS 2203 World Civilization to the Fifteenth Century</p>

**Degree Requirements (69 Semester credit hours):**

## A. 47 semester credit hours of required courses:

COM	2123	Oral Interpretation
EDP	2113	Development in the Elementary and Middle School Child
EDU	2103	Education in U.S. Society
GEO	1103	Introduction to Earth Systems
GEO	1111	Introduction to Earth Systems Laboratory
GEO	3203	Introduction to Rocks and Minerals
GEO	3211	Rocks and Minerals Laboratory
IDS	2083	Technology for Liberal Arts and Social Sciences
IDS	2713	Modes of Inquiry Across the Fields of Study
IDS	3303	Studies in Exceptionalities
MAT	2243	Foundations of Mathematics
MAT	3123	Fundamentals of Geometry
MAT	3233	Modern Algebra
MAT	4013	Graphing Calculator Topics

Select 3 semester credit hours from the following:

BBL	3403	Cultural and Linguistic Diversity in a Pluralistic Society
ESL	3063	Second Language Acquisition in Early Adolescence

Select 3 semester credit hours from the following:

MAT	4113	Computer Mathematical Topics
MAT	4123	History of Mathematics

Select 3 semester credit hours from the following:

AST	1013	Introduction to Astronomy (with AST 1031 Astronomy Laboratory)
PHY	1623	General Physics II (with PHY 1631 General Physics II Laboratory)

## B. 22 semester credit hours of required support courses:

RDG	3533	Content Area Reading Grades 4–8
RDG	3523	Developmental Reading-Grades 4–8

## Mathematics

MAT	1093	Precalculus
MAT	1214	Calculus

## Science

CHE	1103	General Chemistry I
CHE	1122	General Chemistry I Laboratory
PHY	1603	General Physics I
PHY	1611	General Physics I Laboratory

**Certification Requirements (20 Semester credit hours):**

Students must be admitted to the Teacher Certification Program before enrollment in Certification, Professional Education, and Student Teaching coursework.

C&I	4413	Approaches to Teaching Mathematics and Science Grades 4–6
C&I	4423	Approaches to Teaching Mathematics and Science Grades 6–8
C&I	4502	Mathematics and Science Integrated Laboratory
C&I	4636	Student Teaching: Grades 4–8 Mathematics and Science
EDP	3303	Principles of Learning and Classroom Management Grades 4–8
EDP	4203	Assessment and Evaluation

**Bachelor of Arts in Interdisciplinary Studies (Special Education Certification Option EC–12)**

The minimum number of semester credit hours required for the IDS degree with special education certification EC–12 option is 124, at least 39 of which must be at the upper-division level.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Interdisciplinary Studies with teacher certification must fulfill University Core Curriculum requirements. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) IDS 2113 Society and Social Issues (recommended)</p> <p><b><i>Economics</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core course will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed below will satisfy this core requirement. IDS 2303 World Literature I: Through the Sixteenth Century IDS 2313 World Literature II: Since the Sixteenth Century</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed below will satisfy this core requirement. IDS 2203 World Civilization to the Fifteenth Century. IDS 2213 World Civilization since the Fifteenth Century.</p>

**Degree Requirements (34 semester credit hours):**

## A. 16 semester credit hours of required IDS courses:

## 1. 13 semester credit hours of required courses:

IDS	2083	Technology for Liberal Arts and Social Sciences
IDS	2113	Society and Social Issues
IDS	2713	Modes of Inquiry across the Fields of Study
IDS	3203	Physical Science
IDS	3201	Physical Science Laboratory (1 semester credit hour)
		or
IDS	3213	Earth & Life Science
IDS	3211	Earth & Life Science Laboratory (1 semester credit hour)

## 2. 3 semester credit hours selected from the following:

COM	2123	Oral Interpretation
IDS	2103	Individual, Family, and Community
IDS	2203	World Civilizations to the Fifteenth Century
IDS	2213	World Civilizations since the Fifteenth Century
IDS	2303	World Literature I
IDS	2313	World Literature II
IDS	3653	Music and Related Arts

## B. 18 semester credit hours of required support courses:

ECE	2103	Child Growth and Development
HTH	2133	Health and Environmental Safety
MAT	1153	Essential Elements in Mathematics I
MAT	1163	Essential Elements in Mathematics II

Select 3 semester credit hours from the following:

EDP	3133	Principles of Learning and Classroom Management (EC–4)
EDP	3203	Learning and Development in the Secondary School Adolescent
EDP	3303	Principles of Learning Classroom Management (4–8)

Select 3 semester credit hours from the following:

ASL	1013	American Sign Language Basic 1
ASL	1023	American Sign Language Basic 2
BBL	2003	Language, Culture, and Society
SPN	2003	Spanish for Elementary Education

**Professional Special Education Requirement (48 semester credit hours):**

Students must be admitted to the Teacher Certification Program before enrollment in Professional Special Education. Completion of Core Curriculum requirements. Degree requirements and support courses listed above are prerequisite to enrollment in Professional Special Education Courses.

## A. 30 semester credit hours of Professional Special Education:

C&I	4676	Student Teaching: Special Education
SPE	3603	Introduction to Exceptionality
SPE	3623	Assessment of Exceptional Children
SPE	3633	Behavior Management of Exceptional Children
SPE	3643	Language and Cognitive Developmental and Dysfunction
SPE	3653	Practicum in Special Education: Introduction (Fall Semester)
SPE	3663	Practicum in Special Education: Intermediate (Spring Semester)
SPE	4603	Working with Parents of Exceptional Children
SPE	4653	Practicum in Special Education: Advanced (Summer Semester)

## B. 18 semester credit hours of support courses:

RDG	3533	Content Area Reading 4–8
RDG	3803	Writing Development & Processes
RDG	3813	Early Literacy Learning EC–4
RDG	4733	Literacy Problems EC–4

Select 3 semester credit hours from the following:

C&I	4403	Approaches to Teaching Mathematics and Science EC–4
C&I	4603	Approaches to Teaching Mathematics and Science (4–8)

Select 3 semester credit hours from the following:

BBL	4063	Bilingual Approaches to Content-Based Learning (taught in Spanish)
ESL	3023	Second Language Teaching and Learning EC–4

## SECONDARY CERTIFICATION PROGRAMS

Students seeking certification to teach at the secondary level (grades 8 to 12) must obtain a bachelor's degree in the academic area in which they plan to teach. They should plan to consult with their advisor in the Department in which their degree is contained. They should also consult with an advisor in the COEHD Advising and Certification Center for information regarding secondary certification requirements and admission to the teacher certification program. Requirements for degrees and certificates have been carefully coordinated; however, there are specific degree requirements that may not be required in the certification program, and specific certification requirements that may not be required in the degree program. Certificate program requirements are approved by the State of Texas.

**Core Curriculum Requirements:** Students should refer to the appropriate section of this catalog for a listing of Core Curriculum requirements for the degree they are seeking.

The number of semester credit hours required for secondary certification is 30. There are additional requirements for students seeking certification in English Language Arts and Reading (ELAR). Students seeking certification in ELAR should consult their certification advisor for information.

### **Certification Requirements** (6–9 semester credit hours):

Speech (3 semester credit hours):

COM 1043	Introduction to Communication
	or
COM 2123	Oral Interpretation

BBL 3403	Cultural & Linguistic Diversity in a Pluralistic Society
IDS 3303	Studies in Exceptionality

### **Professional Education and Reading Coursework** (15 semester credit hours):

Students must be admitted to the Teacher Certification Program before enrolling in Professional Education and Student Teaching coursework.

C&I 4203	Models of Teaching in the Content Areas of the Secondary School
EDP 3203	Learning and Development in the Secondary School Adolescent
EDP 4203	Assessment and Evaluation
EDU 2103	Education in U.S. Society
RDG 3773	Introduction to Content Area Reading–Secondary

C&I 4203, EDP 4203, and RDG 3773 are restricted classes. Advisor authorization for these classes will be issued only if all prerequisites have been completed. C&I 4203 is offered only in the Fall and Spring Semesters.

### **Student Teaching Component** (6 semester credit hours):

C&I 4646	Student Teaching: Secondary
	or
C&I 4656	Student Teaching: Secondary–ESL

**Secondary Teaching Fields:**

*Option A.* Students seeking certification for grades 8–12 in a single teaching field should see an academic advisor in their college to determine specific courses needed to meet degree requirements. Most students will obtain a bachelor's degree in the area of their teaching field. Certification and degree advisors should be consulted so that students will be able to meet degree and certification requirements with a minimum number of hours. All electives listed as part of the teaching field must be approved by a certification advisor. See an advisor in the COEHD Advising and Certification Center for a current list of approved secondary level teaching fields.

*Option B.* Students seeking certification for grades 8–12 in two teaching fields will obtain a bachelor's degree in one field and a minor in another field (if minor is offered by the department). Certification and degree advisors should be consulted so that students will be able to meet degree and certification requirements with a minimum number of hours.

*Option C.* This option is available to students pursuing certification for grades 8–12 in composite science (biology, chemistry, and physics). Students should pursue a Bachelor of Science degree in Multidisciplinary Science (see page 424) and should select one of the three science areas and the corresponding certification program as their primary science.

## COURSE DESCRIPTIONS

### AMERICAN SIGN LANGUAGE (ASL)

**1013 American Sign Language: Basic I**

(3-0) 3 hours credit.

A study of American Sign Language, including basic concepts and sign lexicon. Grammatical features, including structure of American Sign Language, will be stressed. Each student will be expected to demonstrate to the instructor basic expressive and receptive ASL skills. [TCCN: SGNL 1301.]

**1023 American Sign Language: Basic II**

(3-0) 3 hours credit. Prerequisite: ASL 1013 or consent of instructor.

Continued study of American Sign Language including sign language colloquialisms used in conversational signing. Expands students' receptive and expressive ASL skills and provides a summary of information currently available dealing with ASL grammatical structure and its sociolinguistic and pragmatic usage. [TCCN: SGNL 1302.]

**2013 American Sign Language: Intermediate I**

(3-0) 3 hours credit. Prerequisites: ASL 1013 and ASL 1023, or consent of instructor.

This course is designed to help students improve their expressive, receptive, and general conversational ASL proficiency, particularly in morphology, semantics, syntax, and lexicon. Students will demonstrate their use of ASL for interactive purposes. [TCCN: SGNL 2301.]

**2023 American Sign Language: Intermediate II**

(3-0) 3 hours credit. Prerequisites: ASL 1013, ASL 1023, and ASL 2013, or consent of instructor.

This course is designed to further extend students' use of ASL skills for communicating with persons who are deaf or hard of hearing. Expands accuracy in using expressive and receptive skills. Students will encode and decode ASL forms related to a variety of topics and situations. [TCCN: SGNL 2302.]

## COURSE DESCRIPTIONS CURRICULUM AND INSTRUCTION (C&I)

### **4203 Models of Teaching in the Content Areas of the Secondary School**

(3-0) 3 hours credit. Prerequisites: Admission to the Teacher Certification Program, EDP 3203 and EDU 2103. Prior or concurrent enrollment in EDP 4203 is required. (Not required for music majors.)

Study of curricular, instructional, and management approaches to subject areas taught in the secondary schools. Emphasis on developing instructional and curricular strategies that are effective in teaching content areas. Course will address special population of students, application of instructional media, technology, and classroom management for the content areas. Twenty-five to 30 hours of field experience are required. This course may be offered in multiple sections according to subject-matter emphasis and may be offered in six-hour field-based block with RDG 3773. Not offered in the summer. Restricted course; advisor code required for registration. (Same as ATE 4203. Credit cannot be earned for C&I 4203 and ATE 4203.)

### **4213 Approaches to Teaching Music**

(3-0) 3 hours credit. Prerequisites: Admission to the Teacher Certification Program, EDU 2103, and EDP 3203.

Designed to provide preservice music teachers with the necessary knowledge and skills to prepare for successfully planning, implementing, and evaluating music instruction. Twenty-five hours of directed field experience are required.

### **4303 Approaches to Teaching Social Studies, Language Arts, and Fine Arts EC-4**

(2-2) 3 hours credit. Prerequisites: C&I 4403, RDG 3823, EDP 3133, and IDS 2213. Admission to Teacher Certification Program. Must be taken concurrently with RDG 4733.

A study of methods and materials for teaching social studies, language arts, and fine arts at the EC-4 level. Special emphasis is placed on an integrated approach to instruction. Students will develop a social studies-based thematic unit with a focus on the integration of language arts and fine arts. A minimum of three to five hours of weekly field-based experience in a preschool/elementary school classroom during the semester is required. Restricted course; advisor code required for registration.

### **4403 Approaches to Teaching Mathematics and Science EC-4**

(3-0) 3 hours credit. Prerequisites: ECE 3603, EDP 3133, RDG 3803, MAT 1153, MAT 1163, IDS 3201, IDS 3203, IDS 3211, IDS 3213. Admission to the Teacher Certification Program. Must be taken concurrently with RDG 3823.

A study of pedagogical approaches and materials designed to support young children's meaningful exploration, discovery, and construction of basic concepts and skills in mathematics and science in preschool through grade 4. Emphasis will be on the interrelatedness of mathematics and science in the curriculum; how to provide an effective learning environment; how to plan and implement inquiry-based mathematics and science lessons; assessment of student learning; and the use of an integrated curriculum approach to teaching. A minimum of three to five hours of weekly field-based experience in a preschool/elementary school classroom during the semester is required. Restricted course; advisor code required for registration. (Same as ATE 4403. Credit cannot be earned for both C&I 4403 and ATE 4403.)

### **4413 Approaches to Teaching Mathematics and Science Grades 4-6**

(3-0) 3 hours credit. Prerequisites: MAT 1093, MAT 1214, MAT 3013, MAT 3233, CHEM 1103, CHEM 1122, PHY 1603, PHY 1611, GEO 1103, GEO 1111. Prior or concurrent enrollment in RDG 3523, EDP 2113, EDU 2103, and IDS 2713. Admission to the Teacher Certification Program.

This course emphasizes a constructivist approach to making science and mathematics meaningful to elementary and middle school children. Inductive and inquiry approaches to teaching and learning will be examined. Students will demonstrate proficiency by creating and teaching lesson plans that specifically address the 4th-6th grade mathematics and science standards as well as integrate other content, incorporate technology, and address diversity. Students will observe and teach science and mathematics lessons in an elementary or middle school classroom for a minimum of 25 hours. This course is field-based in public elementary and middle schools.

- 4423 Approaches to Teaching Mathematics and Science 6–8**  
 (3-0) 3 hours credit. Prerequisites: RDG 3523, MAT 1093, MAT 1214, MAT 3013, MAT 3233, CHEM 1103, CHEM 1122, PHY 1603, PHY 1611, GEO 1103, GEO 1111. Prior or concurrent enrollment in C&I 4413, RDG 3533, EDP 2113, EDU 2103, and IDS 2713. Admission to the Teacher Certification Program.  
 This course emphasizes a constructivist approach in making science and mathematics meaningful to middle school children. Inductive and inquiry approaches to teaching and learning will be examined. Students will demonstrate proficiency by creating and teaching lesson plans that specifically address the 6th–8th grade mathematics and science standards as well as integrate other content, incorporate technology, and address diversity. Students will observe and teach science and mathematics lessons in a middle school classroom for a minimum of 25 hours. This course is field-based in public middle schools.
- 4502 Mathematics and Science Integrated Laboratory**  
 (0-4) 2 hours credit. Prerequisite: Concurrent enrollment in C&I 4603 or C&I 4413 is required.  
 A laboratory course designed to present and model current content and strategies used in middle school mathematics and science classrooms. Manipulatives, technology and laboratory activities.
- 4503 Approaches to Teaching Language Arts, Reading, and Social Studies (4–8)**  
 (3-0) 3 hours credit. Prerequisites: RDG 3523, RDG 3533, IDS 2213, GRG 1023, EDP 2113, EDU 2103, and IDS 2713. Admission to the Teacher Certification Program.  
 This course emphasizes student-centered curricula that meet the needs of diverse students in grades 4 through 8. Pre-service teachers examine and apply models of teaching and learning to develop the knowledge, values, and experiential bases necessary for effective teaching. Topics will include interdisciplinary learning experiences, development of cognitive skills, evaluation of teaching and learning, classroom management, and use of technology. Twenty-five hours of directed field-based experiences in upper elementary/middle school classrooms are required. Restricted course; advisor code required for registration. (Same as ATE 4503. Credit cannot be earned for both C&I 4503 and ATE 4503.)
- 4513 Approaches to Teaching Language Arts, Reading, and Social Studies**  
 (3-0) 3 hours credit. Prerequisites: IDS 2213, GRG 1023. Prior or concurrent enrollment in RDG 3523, EDP 2113, EDU 2103, and IDS 2713. Admission to the Teacher Certification Program.  
 This course emphasizes a constructivist approach to making language arts, reading, and social studies meaningful to elementary and middle school children. Inductive and inquiry approaches to teaching and learning will be examined. Students will demonstrate proficiency by creating and teaching lesson plans that specifically address the 4th–6th grade LA/RDG/SS standards as well as integrate other content, incorporate technology, and address diversity. Students will observe and teach lessons in an elementary or middle school classroom for a minimum of 25 hours in public elementary and middle schools.
- 4523 Approaches to Teaching Language Arts, Writing, and Social Studies**  
 (3-0) 3 hours credit. Prerequisites: RDG 3523, IDS 2213, GRG 1023. Prior or concurrent enrollment in C&I 4513, RDG 3533, EDP 2113, EDU 2103, and IDS 2713. Admission to the Teacher Certification Program.  
 This course emphasizes a constructivist approach in making language arts, reading, and social studies meaningful to middle school children. Inductive and inquiry approaches to teaching and learning will be examined. Students will demonstrate proficiency by creating and teaching lesson plans that specifically address the 6th–8th grade LA/RDG/SS standards as well as integrate other content, incorporate technology, and address diversity. Students will observe and teach lessons in a middle school classroom for a minimum of 25 hours in public middle schools.
- 4603 Approaches to Teaching Mathematics and Science (4–8)**  
 (3-0) 3 hours credit. Prerequisites: MAT 1153, MAT 1163, MAT 1203, IDS 3201, IDS 3203, IDS 3211, IDS 3213, EDU 2103 and EDP 2113. Concurrent enrollment in C&I 4502 is required. Prior or concurrent enrollment in EDP 3303 is also required. Admission to the Teacher Certification Program.  
 Study of curricular, instructional and management approaches to mathematics and science grades 4–8. Emphasis on developing instructional and curricular strategies that are effective in mathematics and science. Twenty hours of directed field-based experiences in upper elementary/middle school classrooms are required. Restricted course; advisor code required for registration. (Same as ATE 4603. Credit cannot be earned for both C&I 4603 and ATE 4603.)

**4616 Student Teaching: EC–Grade 4**

6 hours credit. Prerequisites: Admission to the Teacher Certification Program; completion of all requirements for admission to the EC–4 student teaching semester, including all relevant practice TExES examinations, and completion of 18 semester credit hours of Professional Education: C&I 4303, C&I 4403, ECE 4143, ECE 4203, EDP 3133, RDG 4733. Grade of “C” or better in C&I 4303 and C&I 4403. Individuals must apply to the director of student teaching one semester in advance.

Twelve consecutive weeks of full-day student teaching in a regular early childhood–grade 4 classroom under the supervision of University faculty. Student teacher will be responsible for planning, implementing, and evaluating instruction in collaboration with the cooperating teacher and in conjunction with the UTSA supervisor. Seminars explore issues in teaching practice.

**4626 Student Teaching: Grades 4–8 Generalists**

6 hours credit. Prerequisites: Admission to the Teacher Certification Program; completion of all requirements to the 4–8 student teaching semester, including all relevant practice TExES examinations, and completion of 26 semester credit hours: C&I 4502, C&I 4503, C&I 4603, EDP 3303, ESL 3063, MAT 1203, RDG 3533, RDG 3633, RDG 3803. Grade of “C” or better in C&I 4503 and C&I 4603. Individuals must apply to the director of student teaching one semester in advance.

Twelve consecutive weeks of full-day student teaching in a regular upper elementary/middle school classroom under the supervision of university faculty. Student teacher will be responsible for planning, implementing, and evaluating instruction in collaboration with the cooperating teacher and in conjunction with the UTSA supervisor. Seminars explore issues in teaching practice.

**4636 Student Teaching: Grades 4–8 Mathematics/Science**

6 hours credit. Prerequisites: Admission to the Teacher Certification Program; completion of all requirements to the 4–8 mathematics/science student teaching semester, including all relevant practice TExES examinations, and completion of C&I 4413, C&I 4423, C&I 4502, EDP 3303, ESL 3063 or BBL 3403, RDG 3803. Grade of “C” or better in C&I 4413 and C&I 4423. Individuals must apply to the director of student teaching one semester in advance.

Twelve consecutive weeks of full-day student teaching in a regular upper elementary/middle school classroom under the supervision of University faculty. Student teacher will be responsible for planning, implementing, and evaluating instruction in collaboration with the cooperating teacher and in conjunction with the UTSA supervisor. Seminars explore issues in teaching practice.

**4646 Student Teaching: Secondary**

6 hours credit. Prerequisites: Admission to the Teacher Certification Program and the student teaching semester including all relevant practice TExES examinations, and completing EDP 3203, EDP 4203, RDG 3773, and C&I 4203. Can lack no more than 6 hours in content subject matter. Grade of “C” or better in C&I 4203. Individuals must apply to the director of student teaching one semester in advance.

Twelve consecutive weeks of full-day student teaching in grades 8–12. Student teacher will be responsible for planning, implementing, and evaluating instruction in collaboration with the cooperating teacher and in conjunction with the UTSA supervisor. Individuals pursuing a Basic Secondary Certificate, Option A, will student teach in the single teaching field for which certification is sought. Individuals with two teaching fields will student teach in their major teaching field. Seminars explore issues in teaching practice. (Formerly EDU 4116. Credit cannot be earned for both C&I 4646 and EDU 4116.)

**4656 Student Teaching: Secondary–ESL**

6 hours credit. Prerequisites: Admission to the Teacher Certification Program; completion of all requirements for admission to the student teaching semester; including all relevant practice TExES examinations, completion of a minimum of 6 semester credit hours of the ESL endorsement; and completion of EDU 2103, EDP 3203, EDP 4203, and C&I 4203. Grade of “C” or better in C&I 4203. Individuals must apply to the director of student teaching one semester in advance.

Twelve consecutive weeks of full-day student teaching in grades 8–12, including six weeks of full days in one teaching field and six weeks of full days in an approved English as a Second Language (ESL) program. Student teacher will be responsible for planning, implementing, and evaluating instruction in collaboration with the cooperating teacher and in conjunction with the UTSA supervisor. Individuals pursuing a specialization in generic

special education will student teach for six weeks of full days in one teaching field with students having special needs and six weeks of full days in an approved English as a Second Language program. Seminars explore issues in teaching practice. (Credit cannot be earned for both C&I 4656 and EDU 4126.)

**4666 Student Teaching: All-Level Physical Education**

6 hours credit. Prerequisites: Admission to the Teacher Certification Program; completion of all requirements for admission to the student teaching semester, including all relevant practice TExES examinations, and completion of EDP 3203, KIN 4203, KIN 4303, and RDG 3733. Grade of “C” or better in KIN 4203 and KIN 4303.

Individuals must apply to the director of student teaching one semester in advance. Twelve consecutive weeks of full-day student teaching, including six weeks of full days in an elementary or middle school setting and six weeks of full days in a high school setting (grades 8–12) in the certificate area sought. Student teacher will be responsible for planning, implementing, and evaluating instruction in collaboration with the cooperating teacher and in conjunction with the UTSA supervisor. Meets student teaching requirements for the all-level certificate. Seminars explore issues in teaching practice.

NOTE: Individuals may not concurrently pursue an all-level certificate and an endorsement in English as a Second Language (ESL). (Formerly EDU 4136. Credit cannot be earned for both C&I 4666 and EDU 4136.)

**4676 Student Teaching: Special Education**

6 hours credit. Prerequisites: Admission to the teacher certification program,; completion of all requirements for admission to the student teaching semester, including all relevant practice TExES examinations, and completion of EDU 2103, EDP 3133, C&I 4303, and C&I 4403. Students seeking to obtain SPE certification must have completed SPE coursework prior to student teaching. Individuals must apply to the director of student teaching one semester in advance.

Six consecutive weeks of full-day student teaching in an elementary setting and six consecutive weeks in a middle school or high school under the supervision of UTSA faculty. Student teacher will be responsible for planning, implementing, and evaluating instruction in collaboration with the cooperating teacher and in conjunction with the UTSA supervisor. Seminars explore issues in teaching practice. (Formerly EDU 4206. Credit cannot be earned for both C&I 4676 and EDU 4206.)

**4683 Student Teaching: All-Level Music-Elementary**

3 hours credit. Prerequisites: Admission to the Teacher Certification Program; concurrent enrollment in C&I 4693; completion of all requirements for admission to the student teaching semester, including all relevant practice TExES examinations, and completion of EDP 3203, C&I 4213, C&I 4203, and RDG 3773. Grade of “C” or better in C&I 4213 and C&I 4203. Individuals must apply to the director of student teaching one semester in advance.

Six consecutive weeks of full-day student teaching in an elementary/middle school under the supervision of University faculty. Student teacher will be responsible for planning, implementing, and evaluating instruction in collaboration with the cooperating teacher and in conjunction with the UTSA supervisor. Meets student teaching requirements for the elementary component of the all-level certificate. (Formerly EDU 4403. Credit cannot be earned for both C&I 4683 and EDU 4403.)

**4686 Student Teaching: 4–8 Language Arts, Reading, and Social Studies**

6 hours credit. Prerequisites: Admission to the Teacher Certification Program; completion of all requirements to the 4–8 language arts/reading/social studies student teaching semester, including all relevant practice TExES examinations, and completion of C&I 4513, C&I 4523, EDP 3303, ESL 3063, BBL 3403, RDG 3803. Individuals must apply to the director of student teaching one semester in advance.

Twelve consecutive weeks of full-day student teaching in a regular upper elementary/middle school classroom under the supervision of University faculty. Student teacher will be responsible for planning, implementing, and evaluating instruction in collaboration with the cooperating teacher and in conjunction with the UTSA supervisor. Seminars explore issues in teaching practice.

**4693 Student Teaching: All-Level Music–Secondary**

3 hours credit. Prerequisites: Admission to the Teacher Certification Program; concurrent enrollment in C&I 4683; completion of all requirements for admission to the student teaching semester, including all relevant practice TExES examinations, and completion of EDP 3203, C&I 4213, C&I 4203, and RDG 3773. Individuals must apply to the director of student teaching one semester in advance.

Six consecutive weeks of full-day student teaching in a secondary school (grades 8–12) under the supervision of University faculty. Student teacher will be responsible for planning, implementing, and evaluating instruction in collaboration with the cooperating teacher and in conjunction with the UTSA supervisor. Meets student teaching requirements for the secondary component of the all-level certificate. (Formerly EDU 4413. Credit cannot be earned for both C&I 4693 and EDU 4413.)

**4911-3 Independent Study**

1 to 3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Department Chair and Dean of the college in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4926 Internship in Education**

6 hours credit. Prerequisites: Admission to the Teacher Certification Program; a bachelor's degree; completion of all coursework requirements for the certification program; consent of the COEHD Advising and Certification Center; and consent of the director of student teaching. Internships to be jointly supervised by an employing school district and UTSA.

Experiences will relate to the intern as the teacher-of-record in the classroom. May be repeated for credit.

**4951-3 Special Studies in Curriculum and Instruction**

(1-0, 2-0, 3-0) 1 to 3 hours credit. Prerequisite: Consent of instructor.

Organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of the discipline, will apply to a bachelor's degree.

**4993 Honors Thesis**

3 hours credit. Prerequisites: Enrollment limited to candidates for honors in the Department of Interdisciplinary Studies and Curriculum and Instruction during the last two semesters; consent of the Honors College.

Supervised research and preparation for an honors thesis. May be repeated once with advisor's approval.

**4996 Student Teaching: ESL Grades 4–8**

6 hours credit. Prerequisites: Admission to the Teacher Certification Program; completion of all requirements to the student teaching semester, including all relevant practice TExES examinations, completion of a minimum of 15 semester credit hours of the ESL specialization; and completion of ESL 4003, EDU 2103, EDP 3303, EDP 4203, or BBL 5053. Individuals must apply to the director of student teaching one semester in advance.

Twelve consecutive weeks of full-day student teaching in grade 4–8 in the certificate area sought. Student teacher will be responsible for planning, implementing, and evaluating instruction in collaboration with the cooperating teacher and in conjunction with the UTSA supervisor. Seminars explore issues in teaching practice.

## **COURSE DESCRIPTIONS**

### **EARLY CHILDHOOD (ECE)**

**2103 Child Growth and Development**

(3-0) 3 hours credit.

Study of growth and development during early childhood. Review and integration of physical, psychological, social, language, and cognitive development affecting growth in children. Emphasis on multicultural perspectives of child development addressing culturally diverse populations and children with atypical patterns of development. Field-based experiences required. (Formerly ECE 3123. Credit cannot be earned for both ECE 2103 and ECE 3123.) [TCCN: TECA 1354.]

**2113 Introduction to Early Childhood Education**

(3-0) 3 hours credit.

Introductory course for prospective teachers of young children, birth through 8 years old. Students will become familiar with the history and principles that guide the implementation of quality early childhood programs today. Emphasis will be on developmentally appropriate practices informed by the latest research on child development, family systems theory, curriculum development, and effective teaching practices in early childhood. Field-based experiences required. (Same as ATE 2113. Credit cannot be earned for both ECE 2113 and ATE 2113.) [TCCN: TECA 1311.]

**3133 Programs in Early Childhood**

(3-0) 3 hours credit.

Survey of historical, philosophical, psychological, and sociocultural foundations of early childhood programs. Examination of past and current trends in early childhood programs. Emphasis on inclusive education approaches to program development, curriculum design, and instructional methods. Review of culturally responsive programs; technological tools for instruction, and effective accommodations for groups of young children representing a wide range of ability. Field-based experiences required.

**3313 Play, Creativity, and Learning EC–4**

(3-0) 3 hours of credit.

A study of the current knowledge of play and creativity and the relationship between children's play and cognitive, social, and affective development. Will provide EC–4 educators with knowledge and skills necessary to promote and support children's play as a primary learning mechanism. Emphasis on effective strategies, equipment, materials, and activities that support and encourage children's play, creativity, and learning. Field-based experiences are required.

**3603 Language and Cognitive Development in EC–4**

(3-0) 3 hours credit.

Introduction to theories of language and cognitive development in young children with implications for acquisition of language and early literacy skills. Review of the development of symbolic logic and language learning of children from diverse cultural and linguistic backgrounds. Field experiences required.

**4103 Guidance of Young Children in Groups**

(3-0) 3 hours credit.

Study of effective strategies for guiding the social-emotional development and learning of children, including those with special needs, in group settings. Emphasis on classroom management and discipline methods; understanding human interactions and the cultural dynamics of groups; and guiding children in task involvement. Examination of strategies for facilitating cooperative activities and use of materials; the design of effective learning environments; conflict resolution techniques, and strategies for enhancing the inclusion of children with special needs in social and learning contexts. Field-based experiences required.

**4123 Family and Community Resources in Early Childhood**

(3-0) 3 hours credit.

Study of approaches to family, community, societal, cultural, and ideological support systems in children's growth, learning, and development. Emphasis on how these factors are related in the permissive-restrictive dimensions of childrearing and socialization in broad perspectives across environmental contexts. Examination of resources and systems to address the special needs of families with children who are "at risk" or have disabilities. Review of technological tools used to locate and compile information on community resources. A minimum of 10 hours of field-based experiences required.

**4143 Principles and Practices of Inclusive Education EC–4**

(3-0) 3 hours credit.

Study of culturally responsive programming for diverse groups of children representing a wide range of ability. Identification of theoretical perspectives and principles for inclusive education in early childhood and elementary. Emphasis on effective instructional planning, learning environments, and teaching practices to accommodate individuals in group settings. A minimum of 10 hours of field-based experiences are required.

**4203 Assessment and Evaluation in EC–4**

(3-0) 3 hours credit.

Principles of designing and using assessment and evaluation techniques that are culturally fair, intellectually sound, reliable, dependable, and content-valid for young children. Emphasis on differentiation among criterion-referenced, norm-referenced, individual, informal, authentic, and group assessments. Review of strategies for using assessment data to inform instructional planning, and matching assessment techniques to individual children and learning situations. Field-based experiences are required.

**4913 Independent Study**

3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Department Chair and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4953 Special Studies in Early Childhood and Elementary Education**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

Organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4993 Honors Thesis**

3 hours credit. Prerequisites: Enrollment limited to candidates for honors in the Department of Interdisciplinary Studies and Curriculum and Instruction during the last two semesters; consent of the Honors College.

Supervised research and preparation for an honors thesis. May be repeated once with advisor's approval.

**COURSE DESCRIPTIONS  
INTERDISCIPLINARY STUDIES  
(IDS)**

**1001 Freshman Topics in Interdisciplinary Studies**

(1-1) 1 hour credit.

Required for entering freshmen in the College of Education and Human Development with fewer than 15 hours of coursework and who are interested in majoring in Interdisciplinary Studies. Critical study of topics in interdisciplinary studies. Innovative classroom and learning techniques are used to introduce students to these topics and to help strengthen critical thinking, problem solving, and writing skills. A maximum of 3 semester credit hours of freshman topics courses may apply to a bachelor's degree, although this specific topic may be taken only once.

**2083 Technology for Liberal Arts and Social Sciences**

(3-1) 3 hours credit.

This course focuses on learning from, learning about, and learning with technology in the liberal arts and social sciences. Students will examine the functions and processes of basic technology applications as they investigate and create products relevant to their field of study. Course content will include, but is not limited to, the use of specific software and hardware, principles of organization and design, processes of development, and evaluation of technological tools. One-hour laboratory included.

**2103 The Individual, Family, and Community**

(3-0) 3 hours credit.

Study of theories of the individual, the family, and the community. The course integrates approaches from a variety of social sciences. [TCCN: TECA 1303.]

**2113 Society and Social Issues**

(3-0) 3 hours credit.

Study of social and institutional phenomena, including ethnicity, gender, and social conflict. These phenomena will be approached through case studies.

**2203 World Civilization to the Fifteenth Century**

(3-0) 3 hours credit.

A general introduction to World History from the Late Neolithic to the Columbian Encounter in the late 15th century CE. Broad overview of the pattern of development of major civilizations and their interactions, with closer attention given to those events, institutions, beliefs, and practices that involved and affected large numbers of people and had lasting significance for later generations. (Same as HIS 2123. Credit cannot be earned for both IDS 2203 and HIS 2123.) [TCCN: HIST 2321.]

**2213 World Civilization since the Fifteenth Century**

(3-0) 3 hours credit.

A general introduction to World History since the late 15th century CE. Broad overview of the pattern of development of major civilizations and their interactions, with closer attention to those events, institutions, beliefs, and practices that involved and affected large numbers of people and laid foundations of the modern world. (Same as HIS 2133. Credit cannot be earned for both IDS 2213 and HIS 2133.) [TCCN: HIST 2322.]

**2303 World Literature I: Through the Sixteenth Century**

(3-0) 3 hours credit. Prerequisite: WRC 1023 or an equivalent.

This course is an exploration of sources and continuing traditions in World Literatures in their various cultural and aesthetic contexts from their origins through the 16th century. It includes extensive reading of representative examples of the major oral and written literatures including, but not limited to, poetry, narratives, and drama and examines how these literatures influenced contemporary experience. The readings will be studied from multiple perspectives and will be related to comparable aesthetic expressions in music and the fine arts. A major Inquiry Project with a report is required. [TCCN: ENGL 2332.]

**2313 World Literature II: Since the Sixteenth Century**

(3-0) 3 hours credit. Prerequisite: WRC 1023 or an equivalent.

This course is an exploration of sources and continuing traditions in World Literatures in their various cultural and aesthetic contexts from the beginning of the 16th Century to the Present. It includes extensive reading of representative examples of the major oral and written literatures including, but not limited to, poetry, narratives, and drama and examines how these literatures influenced contemporary experience. The readings will be studied from multiple perspectives and will be related to comparable aesthetic expressions in music and the fine arts. A major inquiry project with a report is required. [TCCN: ENGL 2333.]

**2713 Modes of Inquiry across the Fields of Study**

(3-0) 3 hours credit. Prerequisites: WRC 1013 and WRC 1023.

Study of thinking in the sciences, social studies, mathematics, language arts, and fine arts through interdisciplinary investigations. Course experiences include modeling, practice, and analysis of ways of inquiring in the several subject areas, and seeking their implications for interdisciplinary inquiries. (Formerly IDS 2003. Credit cannot be earned for both IDS 2713 and IDS 2003.)

**3003 Science and Humanity**

(3-0) 3 hours credit. Prerequisite: Successful completion of MTC 1023 strongly recommended.

Study of paradigms of the physical and life sciences under a mathematical framework noting their effects on humanity. The course uses an integrative, standards-based approach to studying the nature of scientific inquiry, knowledge, and theory development, relationships between science and technology, and effects of science and scientific thinking on humanity's past, present, and future.

**3201 Physical Science Laboratory**

(0-3) 1 hour credit. Prerequisite: completion of Core Curriculum requirements.

This laboratory course accompanies IDS 3203. It familiarizes students with laboratory tools and techniques and allows them to form a better understanding of topics in physics and chemistry by experimentation. Major themes include energy, forces, and atomic and subatomic interactions. It is recommended that this course be taken concurrently with IDS 3203.

**3203 Physical Science**

(3-0) 3 hours credit. Prerequisite: completion of Core Curriculum requirements.

This conceptually-based course provides nonscience majors with an interdisciplinary survey of topics in physics and chemistry. Major themes include energy, forces, and atomic and subatomic interactions. Specific topics may include, but are not limited to: density, motion, work, power, waves, thermodynamics, electromagnetism, relativity, atomic and subatomic interactions, as well as acids and bases. It is recommended that this course be taken concurrently with IDS 3201.

**3211 Earth and Life Science Laboratory**

(0-3) 1 hour credit. Prerequisite: completion of Core Curriculum requirements.

This laboratory course accompanies IDS 3213. It familiarizes students with laboratory tools and techniques and allows them to form a better understanding of topics in biology and geology by experimentation. Major themes include energy, evolution, tectonics, and change over time. It is recommended that this course be taken concurrently with IDS 3213.

**3213 Earth and Life Science**

(3-0) 3 hours credit. Prerequisite: completion of Core Curriculum requirements.

This conceptually-based course provides nonscience majors with an interdisciplinary survey of topics in biology and geology. Major themes include energy, evolution, tectonics, and change over time. Specific topics may include, but are not limited to: biodiversity, basic genetics, equilibria, earth history, as well as mountain-building and erosional processes. It is recommended that this course be taken concurrently with IDS 3211.

**3303 Studies in Exceptionality**

(3-0) 3 hours credit.

A study of the nature and needs of individuals with disabilities within the context of society. A primary emphasis will be given to helping IDS students acquire knowledge and competencies necessary for providing research-based, empirically derived best practices in curriculum and instruction to preschool and school-aged exceptional children and youth in regular education and inclusive settings. Advocacy, efficacy, and community issues will also be addressed.

**3653 Music and Related Arts**

(3-1) 3 hours credit.

Study of the essential concepts of music and visual arts. An understanding of the cognitive content of each art will be reinforced by a variety of activities which relate directly to each artistic discipline. Similarities and differences in the various arts will be investigated in terms of basic elements, means of creating, and experience.

**4913 Independent Study**

3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Department Chair, and Dean of the college in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4953 Special Studies in Interdisciplinary Studies**

(3-0) 3 hours credit.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4993 Honors Thesis**

3 hours credit. Prerequisite: Enrollment limited to candidates for honors in the Department of Interdisciplinary Studies and Curriculum and Instruction during the last two semesters; consent of the Honors College.

Supervised research and preparation for an honors thesis. May be repeated once with advisor's approval.

## COURSE DESCRIPTIONS

### READING (RDG)

**0013 Reading Improvement**

(3-0) 3 hours credit.

Practical instruction in strategies for improving reading of university-level materials. Strategies developed include determining word meanings; understanding main ideas and supporting details; identifying the writer's purpose, point of view, and intended meaning; analyzing relationships among ideas; using critical reasoning when reading; and study skills. Course does not count toward any degree at UTSA.

**3513 Children's Literature**

(3-0) 3 hours credit.

Designed to familiarize students with children's books from diverse cultures that are appropriate for young children. Topics will include: the values of children's books, criteria for selecting materials, the evaluation of individual books, a survey of the genres of children's literature, literary response, and the discussion of current issues in the field of children's literature.

**3523 Developmental Reading – Grades 4–8**

(3-0) 3 hours credit.

An overview of the development of reading across the grades with an emphasis on grades 4 through 8. This course focuses on the reading process, techniques for developing oral and written language facility, word identification and comprehension of readers from various sociocultural backgrounds and with differing abilities, and classroom assessment of reading. Twenty hours of field experiences are required. (Same as ATE 3523. Credit cannot be earned for both RDG 3523 and ATE 3523.)

**3533 Content Area Reading – Grades 4–8**

(3-0) 3 hours credit. Prerequisite: RDG 3523.

Study of the teaching and learning of content area reading in grades 4 through 8 including the textual, contextual, and cultural factors that influence reading. The course considers the range of reading abilities of intermediate and middle grade students, texts used in these grade levels, and strategies for teaching and evaluating vocabulary, comprehension, and thinking skills in the content areas. Twenty hours of field experiences are required.

**3633 Literature and Other Texts Across the Content Areas – Grades 4–8**

(3-0) 3 hours credit.

This course is designed to familiarize students with literature and other texts appropriate for students in grades 4 through 8. These texts include trade books, informational books, electronic texts, and other real world texts that are appropriate for teaching and learning. Topics will include: examination of critical issues in children's books and young adult literature, evaluation and selection of texts, and literary response. Five hours of field experience are required.

**3673 Reading for Secondary Teachers Grades 8–12**

(3-0) 3 hours credit.

An overview of the developmental nature of reading across the grades with an emphasis on grades 8 through 12. This course focuses on the reading process, including word identification, fluency, vocabulary, higher-order levels of comprehension, and metacognition. This course considers social and cultural factors that influence the adolescent reading processes, including the role of social interaction in reading, language variations, and background knowledge that are a part of the reading process. Other topics include differences in student ability and motivation and also new approaches to assessment. This course also explores literacy programs that fit the needs of diverse adolescent, especially programs that address the challenges of struggling secondary readers. Twenty hours of field experiences are required.

**3773 Introduction to Content Area Reading—Secondary**

(3-0) 3 hours credit. Prerequisites: Completion of all requirements for admission to the teacher certification program, including but not limited to satisfying the TSI requirement, and completing EDU 2103 and EDP 3203.

Study of the reading process and of materials and techniques for supporting reading and writing in the secondary school. Considers the range of reading ability of secondary students, texts used, and strategies for teaching vocabulary, and comprehension in different content areas. Directed field experiences in secondary school classrooms are required. Opportunities for cross-disciplinary applications. Twenty-five to 30 hours of field experience are required. Restricted course; advisor code required for registration. (Same as ATE 3773. Credit cannot be earned for both RDG 3773 and ATE 3773.)

**3803 Writing Development and Processes**

(3-0) 3 hours credit.

Examines the nature of written language and facets of the writing process. The course focuses on stages in the writing process, writing in different genres, the developmental nature of writing, writing in relation to other communication processes, and the place of technology in writing.

**3813 Early Literacy Learning—EC-4**

(3-0) 3 hours credit.

Introduction to early literacy learning and ways in which it relates to language development in diverse communities. Special emphasis is placed on emergent reading and writing, development of phonemic awareness, decoding and word analysis, fluency, and meaning construction. Additional topics include family literacy and the assessment of early literacy development. Field experiences in this course include an early literacy assessment of a young child and one-on-one tutoring in oral language, reading, and writing. Twenty hours of field experience required. (Same as ATE 3813. Credit cannot be earned for both RDG 3813 and ATE 3813.)

**3823 Reading Comprehension—EC-4**

(3-0) 3 hours credit. Prerequisite: RDG 3813. Must be taken concurrently with C&I 4403.

Study of the reading comprehension process, including how textual, reader, contextual, and cultural factors affect understanding of written text. Emphasis is placed on comprehending narrative and expository text and supporting literacy in the content areas. Twenty hours of directed field experience are required.

**4733 Literacy Problems—EC-4**

(3-0) 3 hours credit. Prerequisites: RDG 3813 and RDG 3823. Must be taken concurrently with C&I 4303.

Practicum that affords students the opportunity to assess and tutor struggling readers. Cognitive, sociocultural, and affective factors related to the child's literacy development are addressed. Students learn a variety of means to assess literacy ability and develop instructional interventions to address identified areas of need. A maximum of 20 hours of fieldwork are required.

**4913 Independent Study**

3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Department Chair, and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4953 Special Studies in Reading**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

Organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree. (Same as ATE 4953. Credit cannot be earned for both RDG 4953 and ATE 4953.)

**4993 Honors Thesis**

3 hours credit. Prerequisites: Enrollment limited to candidates for honors in the Department of Interdisciplinary Studies and Curriculum and Instruction during the last two semesters; consent of the Honors College.

Supervised research and preparation for an honors thesis. May be repeated once with advisor's approval.

**COURSE DESCRIPTIONS  
SPECIAL EDUCATION  
(SPE)**

- 3603 Introduction to Exceptionality**  
(3-0) 3 hours credit. Prerequisite: Must be taken concurrently with SPE 3643 and SPE 3653 during the Fall Semester, or consent of instructor.  
A study of individuals, groups, and populations designated or characterized as disabled, handicapped, deviant, or exceptional by various agencies and organizations historically and currently in society. Etiology, characteristics, services, and efficacy of treatment and intervention will be studied. Offered in the Fall Semester. (Formerly EDP 3603. Credit cannot be earned for both SPE 3603 and EDP 3603. Same as ATE 3603. Credit cannot be earned for both SPE 3603 and ATE 3603.)
- 3613 Issues in Deaf Culture and Education: Practicum**  
(3-0) 3 hours credit. Prerequisites: ASL 1013, ASL 1023, ASL 2013, and ASL 2023, or consent of instructor.  
Requires the demonstration and use of ASL skills for communicating with people who are deaf or hard of hearing in a variety of community and academic settings, including but not limited to elementary through postsecondary general and special education classrooms, public and private service agencies, community service organizations, shopping centers, work stations, and restaurants. (Formerly EDP 3613. Credit cannot be earned for both SPE 3613 and EDP 3613.)
- 3623 Assessment of Exceptional Children**  
(3-0) 3 hours credit. Prerequisite: SPE 3603 or consent of instructor; must be taken concurrently with SPE 3633 and SPE 3663 during the Spring Semester.  
An introduction to assessment of individuals with disabilities. Informal and formal assessment instruments, procedures, and systems for assessment of aptitude, achievement, adaptive behavior, and language abilities will be studied. Offered in the Spring Semester. (Formerly EDP 3623. Credit cannot be earned for both SPE 3623 and EDP 3623.)
- 3633 Behavior Management of Exceptional Children**  
(3-0) 3 hours credit. Prerequisites: SPE 3603 or consent of instructor; must be taken concurrently with SPE 3623 and SPE 3663 during the Spring Semester.  
A study of learning theory with emphasis on operant conditioning. Research related to alternative explanations for behavior and behavior change will be included. Planning, application, and evaluation of a behavior change project is required. Offered in the Spring Semester. (Formerly EDP 3633. Credit cannot be earned for both SPE 3633 and EDP 3633. Same as ATE 3633. Credit cannot be earned for both SPE 3633 and ATE 3633.)
- 3643 Language and Cognitive Development and Dysfunction**  
(3-0) 3 hours credit. Prerequisite: SPE 3603 or consent of instructor, taken concurrently with SPE 3603 and SPE 3653 during the Fall Semester.  
A study of theories, research, and research-based practices related to the language and cognitive development needs of learners with disabilities. Offered in the Fall Semester. (Formerly EDP 3643. Credit cannot be earned for both SPE 3643 and EDP 3643. Same as ATE 3643. Credit cannot be earned for both SPE 3643 and ATE 3643.)
- 3653 Practicum in Special Education (Introduction)**  
3 hours credit. Prerequisite: SPE 3603 or consent of instructor; taken concurrently with SPE 3603 and SPE 3643 during the Fall Semester.  
Treatment, educational and habilitative theories, research, and practices will be studied. Observation and evaluation of services provided to individuals with disabilities will be required. Students enrolled in this course will be required to spend 10 hours a week (mornings) in field-based placements, for a total of 80 to 120 hours, dependent upon the field placement program needs and requirements and on instructor requirements. Offered in the Fall Semester. (Formerly EDP 3653. Credit cannot be earned for both SPE 3653 and EDP 3653. Same as ATE 3653. Credit cannot be earned for both SPE 3653 and ATE 3653.)

**3663 Practicum in Special Education (Intermediate)**

3 hours credit. Prerequisites: SPE 3603, SPE 3643, and SPE 3653; must be taken concurrently with SPE 3623 and SPE 3633 during the Spring Semester.

The study of curriculum content, practices of habilitation, education, instruction, and treatment provided to individuals with disabilities. Theories, research, and contemporary practices will be emphasized in conjunction with evaluation of efficacy. Students enrolled in this course will be required to spend 10 hours a week (mornings) in field-based placements for a total of 80 to 120 hours, dependent upon field placement program needs and requirements, and on instructor requirements. Offered in the Spring Semester. (Formerly EDP 3663. Credit cannot be earned for both SPE 3663 and EDP 3663.)

**4603 Working with Parents of Exceptional Children**

(3-0) 3 hours credit. Prerequisites: 9 semester credit hours of special education coursework or consent of instructor; must be taken concurrently with SPE 4653 during the Summer Session.

A study of theories, research, and practices of parent and family involvement in the habilitation, education, and treatment of individuals with disabilities. History, research, and contemporary issues in advocacy, legislation, training, and consultation will be studied. Offered in the Summer Session. (Formerly EDP 4603. Credit cannot be earned for both SPE 4603 and EDP 4603.)

**4653 Practicum in Special Education (Advanced)**

3 hours credit. Prerequisites: SPE 3603, SPE 3623, SPE 3633, SPE 3643, SPE 3653, and SPE 3663; must be taken concurrently with SPE 4603 during the Summer Session.

The study of the planning, application, and evaluation of Individual Educational Plans (IEPs) in the specialized educational and related services provided under the law to individuals with disabilities. Students will be required to demonstrate competency in providing services and will be required to spend mornings (7:30-11:30) in field placements. Offered in the Summer Session. (Formerly EDP 4653. Credit cannot be earned for both SPE 4653 and EDP 4653.)

**4913 Independent Study**

3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Department Chair, and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4993 Honors Thesis**

3 hours credit. Prerequisites: Enrollment limited to candidates for honors in the Department of Interdisciplinary Studies and Curriculum and Instruction during the last two semesters; consent of the Honors College.

Supervised research and preparation for an honors thesis. May be repeated once with advisor's approval.

**COURSE DESCRIPTIONS  
ALTERNATIVE TEACHER EDUCATION  
(ATE)**

**2103 Child Growth and Development**

(3-0) 3 hours credit.

Study of growth and development during early childhood. Review and integration of physical, psychological, social, language, and cognitive development affecting growth in children. Emphasis on multicultural perspectives of child development addressing culturally diverse populations and children with atypical patterns of development. Field-based experiences required. (Same as ECE 2103. Credit cannot be earned for both ATE 2103 and ECE 2103.)

**2113 Introduction to Early Childhood Education**

(3-0) 3 hours credit. Prerequisite: Admission to the Region 20 ESC Teacher Orientation & Preparation Program (TOPP).

Introductory course for prospective teachers of young children. Competencies specific to the science of teaching in early childhood/elementary programs will be introduced. Students will become familiar with the fundamentals of teaching including models of technology, lesson and unit planning, classroom management skills, integration of technology, creating a classroom environment conducive to learning, and teacher professionalism. (Same as ECE 2113. Credit cannot be earned for both ATE 2113 and ECE 2113.)

**3523 Developmental Reading Grades 4–8**

(3-0) 3 hours credit. Prerequisite: Admission to the Region 20 ESC Teacher Orientation & Preparation Program (TOPP).

An overview of the development of reading across the grades with an emphasis on grades 4 through 8. This course focuses on the reading process, techniques for developing oral and written language facility, word identification and comprehension of readers from various sociocultural backgrounds and with differing abilities, and classroom assessment of reading. Field experiences are required. (Same as RDG 3523. Credit cannot be earned for both ATE 3523 and RDG 3523.)

**3603 Introduction to Exceptionality**

(3-0) 3 hours credit. Prerequisite: Admission to the Region 20 ESC Teacher Orientation & Preparation Program (TOPP).

A study of individuals, groups, and populations designated or characterized as disabled, handicapped, deviant, or exceptional by various agencies and organizations historically and currently in society. Etiology, characteristics, services, and efficacy of treatment and intervention will be studied. (Credit cannot be earned for both ATE 3603 and SPE 3603 or for ATE 3603 and EDP 3603.)

**3633 Behavior Management of Exceptional Children**

(3-0) 3 hours credit. Prerequisite: Admission to the Region 20 ESC Teacher Orientation & Preparation Program (TOPP).

A study of learning theory with emphasis on operant and respondent conditioning. Research related to alternative explanations for behavior and behavior change will be included. Planning, application, and evaluation of a behavior change project is required. (Credit cannot be earned for both ATE 3633 and SPE 3633 or for ATE 3633 and EDP 3633.)

**3643 Language and Cognitive Development and Dysfunction**

(3-0) 3 hours credit. Prerequisite: Admission to the Region 20 ESC Teacher Orientation & Preparation Program (TOPP).

A study of theories, research, and research-based practices related to the language and cognitive development needs of learners with disabilities. (Credit cannot be earned for both ATE 3643 and SPE 3643 or for ATE 3643 and EDP 3643.)

**3653 Practicum in Special Education (Introduction)**

3 hours credit. Prerequisites: Must be taken concurrently with SPE 3603 and 3643 during the Fall Semester. Admission to the Region 20 ESC Teacher Orientation & Preparation Program (TOPP).

Treatment, educational and habilitative theories, research, and practices will be studied. Observation and evaluation of services provided to individuals with disabilities will be required. (Credit cannot be earned for both SPE 3653 and EDP 3653 or for SPE 3653 and ATE 3653.)

**3773 Introduction to Content Area Reading Secondary**

(3-0) 3 hours credit. Prerequisites: Admission to the Region 20 ESC Teacher Orientation & Preparation Program (TOPP).

Study of the reading process and of materials and techniques for supporting reading and writing in the secondary school. Considers the range of reading ability of secondary students, texts used, and strategies for teaching vocabulary and comprehension in different content areas. Directed field experiences in secondary school classrooms

are required. Opportunities for cross-disciplinary applications. Field experiences are required. Restricted course; advisor code required for registration. (Same as RDG 3773. Credit cannot be earned for both ATE 3773 and RDG 3773.)

**3813 Early Literacy Learning–EC–4**

(3-0) 3 hours credit. Prerequisite: Admission to the Region 20 ESC Teacher Orientation & Preparation Program (TOPP).

Introduction to early literacy learning and ways in which it relates to language development in diverse communities. Special emphasis is placed on emergent reading and writing, development of phonemic awareness, decoding and word analysis, fluency, and meaning construction. Additional topics include family literacy and the assessment of early literacy development. Field experiences in this course include an early literacy assessment of a young child and one-on-one tutoring in oral language, reading, and writing. Field experience required. (Same as RDG 3813. Credit cannot be earned for both ATE 3813 and RDG 3813.)

**4203 Models of Teaching in the Content Areas of the Secondary School**

(3-0) 3 hours credit. Prerequisite: Admission to the Region 20 ESC Teacher Orientation & Preparation Program (TOPP).

Study of curricular, instructional, and management approaches to subject areas taught in the secondary schools. Emphasis on developing instructional and curricular strategies that are effective in teaching content areas. Course will address special populations of students, application of instructional media, technology, and classroom management for the content areas. Observation in the school setting are required. (Same as C&I 4203. Credit cannot be earned for both ATE 4203 and C&I 4203.)

**4403 Approaches to Teaching Mathematics and Science EC–4**

(3-0) 3 hours credit. Prerequisite: Admission to the Region 20 ESC Teacher Orientation & Preparation Program (TOPP).

A study of pedagogical approaches and materials designed to support young children's meaningful exploration, discovery, and construction of basic concepts and skills in mathematics and science in preschool through grade 4. Emphasis will be on the interrelatedness of mathematics and science in the curriculum; how to provide an effective learning environment; how to plan and implement inquiry-based mathematics and science lessons; assessment of student learning; and the use of an integrated curriculum approach to teaching. A minimum of three to five hours of weekly field-based experience in a preschool/elementary school classroom during the semester is required. Restricted course; advisor code required for registration. (Same as C&I 4403. Credit cannot be earned for both ATE 4403 and C&I 4403.)

**4503 Approaches to Teaching Language Arts, Reading & Social Studies (4–8)**

(3-0) 3 hours credit. Prerequisite: Admission to the Region 20 ESC Teacher Orientation & Preparation Program (TOPP).

This course emphasizes student-centered curricula that meet the needs of diverse students in grades 4 through 8. Pre-service teachers examine and apply models of teaching and learning to develop the knowledge, values, and experiential bases necessary for effective teaching. Topics will include interdisciplinary learning experiences, development of cognitive skills, evaluation of teaching and learning, classroom management, and use of technology. Directed field-based experiences in upper elementary/middle school classrooms are required. (Same as C&I 4503. Credit cannot be earned for both ATE 4503 and C&I 4503.)

**4603 Approaches to Teaching Mathematics and Science (4–8)**

(3-0) 3 hours credit. Prerequisite: Admission to the Region 20 ESC Teacher Orientation & Preparation Program (TOPP).

Study of curricular, instructional, and management approaches to mathematics and science grades 4 through 8. Emphasis on developing instructional and curricular strategies that are effective in mathematics and science. Directed field-based experiences in upper-elementary/middle school classrooms are required. (Same as C&I 4603. Credit cannot be earned for both ATE 4603 and C&I 4603.)

**4953 Special Studies**

(3-0) 3 hours credit. Prerequisite: Admission to the Region 20 ESC Teacher Orientation & Preparation Program (TOPP).

Organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary. (Same as RDG 4953. Credit cannot be earned for both ATE 4953 and RDG 4953.)

## TEACHER CERTIFICATION PROGRAMS AND REQUIREMENTS

Students seeking teacher certification should be aware that certification requirements in the state of Texas are established and enforced by the State Board for Educator Certification (SBEC). Because of this, certification policies and requirements have the potential to change during the course of students' academic careers. Students are encouraged to stay in close contact with the College of Education and Human Development (COEHD) Advising and Certification Center throughout their academic careers so that they will be informed of changes as they occur.

### General Information

The University of Texas at San Antonio (UTSA) offers programs for preparation as elementary, middle school, high school, and all-level teachers. UTSA also has professional certification programs at the graduate level for students seeking professional licensure.

- Students who are seeking a Bachelor's degree together with certification (undergraduate students) should refer to the "Teacher Certification Programs for Undergraduate Students" section of this catalog.
- Students who have an earned Bachelor's degree from an accredited institution of higher education but are not certified to teach in any state (postbaccalaureate students) should contact the COEHD Advising and Certification Center to obtain the schedule for postbaccalaureate informational seminars.
- Students who have an earned Bachelor's degree and are not certified to teach in any state who wish to pursue teacher certification at the graduate level concurrently with a Master's degree should contact the Master of Arts in Education with a Concentration in Curriculum and Instruction and Teaching (MAECIT) program coordinator. The MAECIT program is for all-level Special Education Certification or for Elementary certification (EC-4) with concentrations in Early Childhood or Bilingual Education.
- Students who have an earned Bachelor's degree and are not certified to teach in any state who wish to pursue alternative certification should contact the Region 20 Education Service Center for information about the Teacher Orientation and Preparation Program (TOPP).
- Students who have an earned Bachelor's degree and are certified to teach in a state other than Texas or in a foreign country should contact the State Board for Educator Certification (SBEC) at 888-863-5880 for information about out-of-state or out-of-country licensure.
- Students seeking certification as a School Counselor, Master Reading Teacher, Reading Specialist, Principal, or Superintendent should consult the current *UTSA Graduate Catalog* and a graduate faculty advisor for information about Master's degree and professional certification programs.

### Teacher Certification Programs for Undergraduate Students

The following describes undergraduate programs for students who are pursuing a Bachelor's degree concurrently with teacher certification:

- Undergraduate students interested in teaching **Pre-Kinder, Kindergarten, and first-through-fourth grades** will declare a major in Interdisciplinary Studies (IDS) with teacher certification in EC-4 Generalist. These students should refer to the section of this catalog for the Bachelor of Arts in Interdisciplinary Studies (Early Childhood-Grade 4 Generalist option). Degree and certification advising for this program is conducted by COEHD Advising and Certification Center advisors.
- Undergraduate students interested in teaching in **fourth-through-eighth grades** will declare a major in Interdisciplinary Studies (IDS) with teacher certification in Grades 4-8 Generalist, Language Arts, Reading, Social Studies, or Mathematics/Science. These students should refer to the section of this catalog for the Bachelor of Arts in Interdisciplinary Studies (grades 4-8 options). Degree and certification advising for this program is conducted by COEHD Advising and Certification Center advisors.
- Undergraduate students interested in teaching **Bilingual Pre-Kinder, Kindergarten, and first-through-fourth grades** will declare a major in Interdisciplinary Studies (IDS) with teacher certification in EC-4 Bilingual Generalist. These students should refer to the section of this catalog for the Bachelor of Arts in Interdisciplinary Studies (Early Childhood-Grade 4 Bilingual Generalist option). Degree and certification advising for this program is conducted by COEHD Advising and Certification Center advisors.

- Undergraduate students interested in teaching in **Bilingual fourth-through-eighth grades** will declare a major in Interdisciplinary Studies (IDS) with teacher certification in Bilingual 4–8 Generalist. These students should refer to the section of this catalog for the Bachelor of Arts in Interdisciplinary Studies (Grades 4–8 Bilingual Generalist certification option). Degree and certification advising for this program is conducted by COEHD Advising and Certification Center advisors.
- Undergraduate students interested in teaching **English as a Second Language in fourth-through-eighth grades** will declare a major in Interdisciplinary Studies (IDS) with teacher certification in English as a Second Language Generalist 4–8, Language Arts, Reading, Social Studies, or Mathematics, Science, and Social Studies. These students should refer to the section of this catalog for the Bachelor of Arts in Interdisciplinary Studies (English as a Second Language Generalist 4–8 options). Degree and certification advising for this program is conducted by COEHD Advising and Certification Center advisors.
- Undergraduate students interested in teaching **Special Education** will declare a major in Interdisciplinary Studies (IDS) and may choose either the EC–4 Generalist option with Special Education Supplement, the 4–8 Generalist option with Special Education Supplement, or the Special Education Certification option EC–12. Students should consult with COEHD Advising and Certification Center advisors for information about these options and the Special Education coursework and sequencing.
- Undergraduate students interested in teaching in **eighth-through-twelfth grades** will declare a major in the academic area in which they plan to teach. These students will refer to the “Secondary Certification Programs” section of this catalog for information about specialized core curriculum and professional education coursework for which they will enroll concurrently with degree requirements. *Students seeking secondary certification are advised to stay in close contact with COEHD Advising and Certification Center advisors.*
- Students interested in teaching **Physical Education in Pre-Kinder-through-twelfth grades** will declare a major in Kinesiology with an emphasis in Teacher Preparation. These students should refer to the “Bachelor of Science Degree in Kinesiology” section of this catalog for degree and certification requirements. Degree and certification advising for this program is conducted by COEHD Advising and Certification Center advisors.
- Students interested in teaching **Music in Pre-Kinder-through-twelfth grades** will declare a major in Music with a concentration in Music Studies and will choose either the Instrumental or Choral Music tracks. These students will refer to the “Bachelor of Music with a Music Studies Concentration” section in this catalog for information about degree and certification requirements. Degree advising for this program is conducted by faculty and academic advisors in the Department of Music, while certification advising is conducted by COEHD Advising and Certification Center advisors.

## Standards

Certificate programs have been designed to meet the standards for teacher certification set by the State Board for Educator Certification (SBEC). UTSA is approved to recommend individuals for these certificates if the individual has completed all requirements for the certificate sought.

The State of Texas utilizes the “approved program” concept in its system of teacher certification. The State:

- establishes the regulations and standards by which teachers are certified (the requirements are independent of college or university degree requirements);
- approves colleges and universities to recommend students for teacher certificates in areas where programs have been found to be in conformity with State standards and are on file with the State; and
- issues the teacher certificate directly to the student, upon recommendation of an approved college or university.

## Applying for the Teacher Certificate

Upon successful completion of the bachelor’s degree, the certification program, required examinations, and student teaching (or an approved substitution for student teaching), students must apply for their certificate online at the SBEC Web site: [www.sbec.state.tx.us](http://www.sbec.state.tx.us).

Additional eligibility requirements for recommendation for the teacher certificate include a 2.50 cumulative grade point average on a 4.00 scale, good standing status at UTSA (not on academic probation), and the recommendation of the College of Education and Human Development (COEHD).

Upon completion of processing by the Advising and Certification Center and by SBEC, the teacher certificate will be sent directly to the student.

## **Student Fitness to Teach Policy**

The College of Education and Human Development has a responsibility to the educational community to ensure that individuals whom the University of Texas at San Antonio (UTSA) recommends to the State of Texas for teaching certification are worthy to join the teaching profession. All teacher candidates in the UTSA Teacher Certification Program (TCP) are expected to demonstrate that they are prepared to teach children and youth. This preparation results from the combination of successful completion of University coursework and the demonstration of important human characteristics and dispositions that all teachers should possess. Consult the *UTSA Handbook of Operating Procedures* Section 5.17 at <http://www.utsa.edu/hop/> or the COEHD Web site at <http://coehd.utsa.edu/> for a copy of the Fitness to Teach Policy.

## **Criminal History Check**

During each semester in which field-based courses are taken, students will be required to submit a Criminal Record Check Authorization Form online. For further information about criminal history check procedures, consult the COEHD Associate Dean for Undergraduate Studies.

## **Teaching Certificates for Persons with Criminal Background**

State guidelines read as follows: “In accordance with Article 6252-13c, Texas Civil Statutes, the State Board for Educator Certification (SBEC) may suspend or revoke a teacher certificate or refuse to issue a teacher certificate for a person who has been convicted of a felony or misdemeanor for a crime that is directly related to the duties and responsibilities of the teaching profession.”

## **Certification in States Other than Texas**

Once certified in Texas, teachers who move out of state may consult the NASDTEC Interstate Contract Web site at [http://www.nasdtc.org/cat\\_report.tpl](http://www.nasdtc.org/cat_report.tpl) to determine if Texas has reciprocity with the state of relocation. If the state in question requires an out-of-state document to be completed, it should be forwarded to the UTSA Certification Officer in the COEHD Advising and Certification Center.

Students moving out of state before having completed all requirements for teacher certification in Texas will be required to complete a state-approved teacher preparation program once relocated.

## **Policies**

### **Appeals**

- Appeal of Certification Requirements

Students wishing to appeal admission requirements to the UTSA teacher certification program, prerequisite requirements, and/or coursework requirements should obtain instructions in the COEHD Advising and Certification Center on filing an appeal with the COEHD Advisory Committee. The Advisory Committee is composed of COEHD faculty representatives and meets once per semester.

- Appeal of Nonrecommendation

If a student does not meet certification requirements, the UTSA Certification Officer notifies the student that he or she will not be recommended for certification, and includes information regarding the appeal process available to the student. A student appeal is submitted to the COEHD Advising and Certification Center. The UTSA Certification Officer reviews the student's file and recommends action to the COEHD Associate Dean for Undergraduate Studies, who makes a decision on the appeal and so notifies the student. The student may then appeal this decision directly to the University Standing Committee on Teacher Education. If the student appeals, the Committee makes its recommendation to the Dean of the College of Education and Human Development for submission to the Provost and Executive Vice President. The Provost and Executive Vice President notifies the student of the decision through the Dean of the College of Education and Human Development.

## Course Substitutions

UTSA certification programs have been carefully designed to meet State Board for Educator Certification (SBEC) standards and to prepare UTSA students to pass the Texas Examinations of Educator Standards (TEXES). It is, therefore, in the student's best interest to follow the approved certification program. **Course substitutions are granted only in extenuating circumstances and only if appropriate substitutions are available. All requests for substitutions must be filed in writing with the COEHD Advising and Certification Center before the individual registers for the course.** Requested course submissions must match the required course in content, intent, and level.

## Restricted Education Courses

Restricted Education courses have strict prerequisites as specified by COEHD faculty. In order to register for a restricted course, a student must apply for advisor authorization. The COEHD Advising and Certification Center accepts applications for advisor authorization from approximately three weeks before registration begins until the registration process is complete. Restricted Professional Development and Reading courses are as follows:

- For those seeking EC–4 certification, restricted courses are C&I 4303, C&I 4403, RDG 3823, and RDG 4733.
- For those seeking 4–8 certification, restricted courses are C&I 4413, C&I 4423, C&I 4502, C&I 4503, C&I 4513, C&I 4523 and C&I 4603.
- For those seeking Bilingual EC–4 certification, restricted courses are BBL 4033, BBL 4063, BBL 4073 and C&I 4403.
- For those seeking Bilingual 4–8 certification, restricted courses are BBL 4033, BBL 4063, BBL 4073, C&I 4502, and C&I 4603.
- For those seeking 8–12 certification, restricted courses are C&I 4203, EDP 4203, RDG 3673, and RDG 3773.
- For those seeking All-level certification in Physical Education, restricted courses are KIN 4203, KIN 4303, and RDG 3773.
- For those seeking All-level certification in Music, restricted courses are C&I 4203, C&I 4213, and RDG 3773.

## Waivers

Individuals who wish to request a waiver of course requirements should first contact the COEHD Advising and Certification Center to determine if the requirement is a UTSA or a State Board for Educator Certification requirement. Individuals who wish to request a waiver of a UTSA requirement must file a written request with the COEHD Advising and Certification Center. Waivers cannot be granted for the requirements mandated by the State Board for Educator Certification.

## Requirements for Admission to the Teacher Certification Program

Consult the *UTSA Information* bulletin for additional admission requirements to the UTSA teacher certification program.

## Student Teaching

Student teaching is an extremely important component of the certification program. The primary purpose of student teaching is to apply what has been learned in university courses to the professional setting (i.e., an actual classroom). **IT IS EXPECTED THAT THE STUDENT TEACHING COMPONENT OF THE CERTIFICATION PROGRAM WILL BE COMPLETED THROUGH UTSA.**

### Admission to Student Teaching

Admission to the professional semester of student teaching must be requested by formal application during the semester before the student plans to student teach. A meeting will be held early in the semester to disseminate application information. The deadline for the application for students who plan to student teach in the Fall Semester is February 15. For students planning to student teach in the Spring Semester, the deadline for the application is October 1. Acceptance into the student teaching program is contingent upon completion of the following requirements:

1. Admission to the UTSA Teacher Certification Program; consult the current *UTSA Information* bulletin for admission requirements.
2. A 2.5 cumulative grade point average on all college work attempted.

3. At least 90 semester credit hours completed before seeking admission (students should consult the Director of Student Teaching for specific credit requirements).
4. Completion of the Professional Education coursework:  
**EC-4:** 21 semester credit hours of Professional Education: C&I 4303, C&I 4403, ECE 4143, ECE 4203, EDP 3133, RDG 3823, RDG 4733.  
**4-8:** 26 semester credit hours: C&I 4502, C&I 4503, C&I 4603, EDP 3303, ESL 3063, MAT 1203, RDG 3533, RDG 3633, RDG 3803.  
**Secondary:** Lacking no more than 6 hours in content area and: C&I 4203, EDP 3203, EDP 4203, RDG 3773.  
**All-level Physical Education:** EDP 3203, KIN 4203, KIN 4303, RDG 3773.  
**All-level Music:** C&I 4203, C&I 4213, EDP 2113, RDG 3773.
5. Students seeking supplementary certification in English as a Second Language should consult an advisor regarding additional course requirements.
6. Presentation of a negative tuberculosis report, as specified by the school district, from a licensed physician, valid at the time of registration for student teaching.
7. Approval of the Director of Student Teaching.
8. Students will be required to submit a Criminal Record Check Authorization form.
9. Completion of all relevant practice TExES examinations prior to student teaching.

NOTE: The Professional Semester is a full-time commitment. The student teaching semester is 15 weeks with time divided between school campuses and UTSA. A student teacher must follow the same schedule as his or her cooperating teacher in the public schools for 12 weeks of consecutive, full-day, full-time student teaching; therefore, it is not possible to register for other courses that meet in the daytime hours. Since performance in the student teaching semester is a key factor used by school districts in evaluating an applicant's potential as a teacher, it is recommended that the individual not attempt to work during the student teaching semester. There is no special provision for financial support of student teachers.

## **Student Teaching Seminar**

At the beginning of the student teaching semester, but before student teaching actually begins, individuals will be notified of a mandatory seminar conducted by the Career Services Center. During this seminar, Career Services, the Director of Student Teaching, and the COEHD Advising and Certification Center staff will provide information about the TExES, services offered, and applying for the certificate. Guest speakers will be available to address such topics as the Texas Student Education Association (TSEA) and interviewing techniques. ALL prospective student teachers must attend this seminar during the student teaching semester.

## **Texas Examinations of Educator Standards (TExES)**

The Texas Examinations of Educator Standards are state-mandated examinations whose purpose is to ensure that educators possess the necessary content and professional knowledge to teach in the Texas public schools. Individuals seeking certification in the State of Texas must pass the required tests before they can be recommended for a teacher certificate and/or endorsement.

TExES tests are criterion-referenced. This means that they are designed to measure an individual's knowledge in relation to an established standard of competence rather than in relation to the performance of other individuals.

The UTSA TExES registration deadline will be three days prior to the date published in the TExES registration bulletin.

Further information on required TExES tests can be obtained in the COEHD Advising and Certification Center, the Office of the TExES Coordinator, or from the UTSA TExES Web site: <http://coeht.utsa.edu/>.

Photo – Chapter 4: College of Engineering

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## COLLEGE OF ENGINEERING

The College of Engineering offers Bachelor of Science degrees in Civil, Electrical, and Mechanical Engineering. Each program is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (EAC/ABET). Individuals enrolling in these degree programs are given an opportunity to develop a strong background in the engineering sciences and to learn the analysis, design, and synthesis tools necessary to function well as active participants in many traditional, new, and emerging areas of technology.

The college has excellent laboratory facilities where students receive hands-on instruction by faculty. Computer-aided design (CAD) facilities, including state-of-the-art workstations, are routinely used in all programs. Some classes are taught by adjunct faculty from local industries, giving students the opportunity to interact with engineering professionals engaged in relevant engineering practice.

This engineering education incorporates demonstrable attributes of ABET-2000 criteria as core values. Graduates from the College of Engineering should have excellent opportunities for employment and pursuit of graduate degrees.

### Cooperative Education in Engineering Program

The Cooperative Education in Engineering Program formally integrates University studies with institutionally supervised work experiences at cooperating organizations. Students participating in this program alternate periods of study at the University with periods of employment in industry. This combination of experiences enhances the student's knowledge, personal development, and preparation for a professional career. Participants register at the University each semester. During the work periods, students register for the one-semester-credit-hour Engineering Co-op course. At the end of each work period, students submit reports covering the period. These reports are the basis of the student's grades in the course. The cooperative education work periods also provide students with a source of income to help pay for their college expenses.

Students may petition to apply 3 semester credit hours of Engineering Co-op as a technical elective toward their degree in engineering. They are encouraged to petition prior to co-op activities.

To qualify for the Cooperative Education in Engineering Program, a student must: have declared a major in the College of Engineering; have completed at least 36 semester credit hours of major and support work, including 7 hours of college-level calculus and 10 hours of college-level physics; and have a minimum cumulative grade point average of 2.50 and a minimum grade point average of 2.50 in their College of Engineering courses. Students are advised that many co-op employers require cumulative grade point averages higher than 2.50, and some require a minimum cumulative grade point average of 3.0. Transfer students may participate in the program after completing at least one semester at the University.

For more information and to apply to the Cooperative Education in Engineering Program, students should contact Career Services.

### DEGREE REQUIREMENTS COMMON TO ALL ENGINEERING PROGRAMS

Entering students should enroll in EGR 1303, Exploring the Engineering Profession, as early as possible, preferably during their first semester at UTSA. The purpose of this course is to help students to choose the appropriate area of engineering and to be successful in their chosen area. During their first semester, students should specify their interest in a specific engineering program by selecting civil, electrical, or mechanical engineering as a major. Undecided engineering students should select a major closest to their area of interest (refer to the following program descriptions). Students may obtain additional information about each program from the College office or a faculty advisor in the appropriate discipline.

Prerequisites for Civil Engineering (CE), Electrical Engineering (EE), Mechanical Engineering (ME), and Engineering (EGR) courses must be completed with a grade of "C" or better. A minimum grade of "C" is required for all science and mathematics courses required in the Engineering programs. Students must satisfy the University's Core Curriculum and ABET accreditation requirements. Recommended degree plans and current ABET requirements may be obtained from the College of Engineering.

Requirements common to all engineering degree programs follow.

### I. Core Curriculum requirements:

Students seeking the Bachelor of Science degree in any engineering field must fulfill University Core Curriculum requirements in the same manner as other students at UTSA.

MAT 1214, CHE 1103, and PHY 1904 (also listed under section II, General Engineering requirements) may be used to satisfy the Core Curriculum requirements for Domain I: Mathematics and Science.

### II. General Engineering requirements:

All degree-seeking candidates in engineering must complete the following 26 semester credit hours:

CHE	1103	General Chemistry
EGR	1303	Exploring the Engineering Profession
EGR	2323	Applied Engineering Analysis I
MAT	1214	Calculus I
MAT	1223	Calculus II
PHY	1904, 1911	Technical Physics I and Laboratory
PHY	1924, 1931	Technical Physics II and Laboratory

## COURSE DESCRIPTIONS ENGINEERING (EGR)

### 2103 Exploring the Engineering Profession

(3-1) 3 hours credit.

Engineering as a career; contemporary issues; academic and career resources; written and oral communication; effective team membership; professional and ethical responsibilities; professional registration; engineering problem formulation and solution; engineering design. One hour of recitation per week.

### 2103 Statics

(3-0) 3 hours credit. Prerequisites: MAT 1223 and PHY 1904.

Vector analysis of force systems applied to particles and rigid bodies and free body diagrams. Engineering applications of equilibrium; of moments, internal forces, and friction; and of centroids, centers of gravity, and moments of inertia. One hour of problem solving recitation. [TCCN: ENGR 2301.]

### 2213 Statics and Dynamics

(3-1) 3 hours credit. Prerequisites: MAT 1223 and PHY 1904.

Force, moment, equilibrium, centroids and moments of inertia, kinematics, and kinetics of particles. Not open to students in Civil or Mechanical Engineering. May not be substituted for EGR 2103. One hour of problem solving recitation. [TCCN: ENGR 2303.]

### 2323 Applied Engineering Analysis I

(3-1) 3 hours credit. Prerequisite: MAT 1223.

Application of mathematical principles to the analysis of engineering problems using linear algebra and ordinary differential equations (ODE's). Use of software tools. Topics include: mathematical modeling of engineering problems; separable ODE's; first-, second-, and higher-order linear constant coefficient ODE's; characteristic equation of an ODE; systems of coupled first-order ODE's; matrix addition and multiplication; solution of a linear system of equations via Gauss elimination and Cramer's rule; rank, determinant, and inverse of a matrix; eigenvalues and eigenvectors; solution of an ODE via Laplace transform; numerical solution of ODE's. One hour of problem solving recitation.

- 3301 Engineering Co-op**  
1 hour credit. Prerequisite: Acceptance into the Cooperative Education in Engineering Program.  
Designed for students participating in Cooperative Education in Engineering Program. Problems related to students' work assignments during their work for co-op employers. May be repeated for credit, but no more than 3 semester credit hours of Engineering Co-op may apply to a bachelor's degree. To apply 3 semester credit hours of Engineering Co-op as a technical elective towards a degree in engineering, students must petition and get approval of a faculty advisor prior to co-op activities. The grade report for the course is either "CR" (satisfactory performance) or "NC" (unsatisfactory performance).
- 3323 Applied Engineering Analysis II**  
(3-1) 3 hours credit. Prerequisite: EGR 2323.  
Application of mathematical principles to the analysis of engineering problems using vector differential and integral calculus, multivariable calculus, partial differential equations, and Fourier series; and use of software tools. One hour of problem solving recitation.
- 3713 Engineering Economic Analysis**  
(3-0) 3 hours credit. Prerequisite: CE 2633.  
Fundamentals of economics and economic policies; techniques of investment analysis for engineering decisions; and discussion of professional practice-ethics, project management, proposal preparation, and communication. (Formerly EGR 4713. Credit cannot be earned for both EGR 3713 and EGR 4713.)
- 4953 Special Studies in Engineering**  
(3-0) 3 hours credit. Prerequisite: Consent of instructor.  
An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.
- 4993 Honors Research**  
3 hours credit. Prerequisite: Enrollment limited to candidates for college honors during their last two semesters; approval by the College Honors Committee.  
Supervised research and preparation of an honors thesis. May be repeated once with approval.

## DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

### Bachelor of Science Degree in Civil Engineering

The Department of Civil and Environmental Engineering is committed to providing a learning environment which encourages discovery and advancement for the betterment of its students and the community. Through its research, public service, and instructional programs, the department seeks to serve the needs of San Antonio and South Texas by providing educational and research opportunities which will contribute to the technological and economic development of the region.

#### Civil Engineering Educational Objectives

The American Society of Civil Engineers (ASCE) defines civil engineering as: “The profession in which a knowledge of the mathematical and physical sciences gained by study, experience, and practice is applied with judgment to develop ways to utilize economically, the materials and forces of nature for the progressive well-being of humanity in creating, improving, and protecting the environment; in providing facilities for community living, industry, and transportation; and in providing structures for the use of humankind.”

The faculty of the Department of Civil and Environmental Engineering has established a specific set of learning objectives to support the mission and the goals of the department and to meet the requirements of ABET accreditation under the Engineering Criteria 2000 (EC-2000).

The educational objectives of the Bachelor of Science degree in Civil Engineering are to provide students with opportunities to:

- acquire the ability to apply the fundamentals of mathematics, sciences, and engineering to analyze problems quantitatively
- develop innovative design skills, including the ability to formulate problems, to think creatively, to synthesize information, and to communicate effectively
- develop the ability to use modern experimental techniques; collect, analyze, and interpret experimental data; and effectively communicate the results
- learn and perfect the diverse skills needed to be successful engineers.

Senior civil engineering students are encouraged to take the Fundamentals of Engineering Examination. Graduates are encouraged to become registered professional engineers and to continue their education throughout their careers.

Civil engineering students must complete the University Core Curriculum requirements and the department’s general engineering requirements. These general engineering requirements are selected to provide the technical abilities and skills necessary to meet the educational objectives of the department. These courses include the introductory engineering course, EGR 1303 Exploring the Engineering Profession, EGR 2103 Statics, and CE 2513 Dynamics. They also include courses in the basic sciences (chemistry and physics) and mathematics that are required of all engineering students. Civil engineering students take several basic engineering science courses that provide the fundamentals necessary for future coursework. These include Mechanics of Solids, Engineering Geology, Fluid Mechanics, Properties and Behavior of Engineering Materials, and Civil Engineering Measurements. They also take courses covering applied probability and statistics, engineering communications, systems analysis, engineering economics, and computer-aided design. Eight required civil engineering courses provide students with the fundamentals in the areas of environmental engineering, geotechnical engineering, hydrology and water resources, structural engineering, and transportation/traffic engineering.

Many of these junior/senior level courses contain elements of civil engineering design. Two elective courses in the senior year enable students to specialize in one or two areas of civil engineering.

Design is integrated throughout the curriculum starting with a freshman introductory course, EGR 1303 Exploring the Engineering Profession, and ending with the senior design sequence, CE 4803 Engineering Practice and CE 4813 Civil Engineering Design. Design components are contained in most required engineering topics courses. These include CE 3213 Reinforced Concrete Design, CE 3233 Steel Design, CE 3413 Geotechnical Engineering and Applications, CE 3633 Water and Wastewater Treatment, CE 3723 Applied Hydrology, CE 4123 Highway Engineering, and CE 4603 Water Resources

Engineering. Design also is included in many of the elective courses, including CE 3253 Introduction to Masonry and Timber Design, CE 4233 Transportation Systems, CE 4413 Foundation Analysis and Design, CE 4653 Design of Pollution Control Systems, and CE 4723 Hydraulic Systems Design. The design experience culminates in a major senior capstone design course, CE 4813 Civil Engineering Design. The capstone design project is multidisciplinary in that it involves three or more civil engineering areas and draws upon most prior coursework. The course involves teamwork, both oral and written presentations, a final design report, and a formal presentation.

All candidates for this degree must fulfill the Core Curriculum requirements, the general engineering requirements, and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Science degree in Civil Engineering must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement. Note: MAT 1214, CHE 1103, and PHY 1904 may be used to satisfy the Core Curriculum requirements for Domain I, as well as several of the General Engineering requirements.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

### General Engineering Requirements

All degree-seeking candidates in engineering must complete the following 26 semester credit hours, as well as the Core Curriculum requirements and major requirements:

CHE	1103	General Chemistry I
EGR	1303	Exploring the Engineering Profession
EGR	2323	Applied Engineering Analysis I
MAT	1214	Calculus I
MAT	1223	Calculus II
PHY	1904, 1911	Technical Physics I and Laboratory
PHY	1924, 1931	Technical Physics II and Laboratory

### Degree Requirements

All degree-seeking candidates in Civil Engineering must complete the following semester credit hours, as well as the Core Curriculum requirements and general engineering requirements:

A. 69 semester credit hours of required courses:

CE	1403	Engineering Communication
CE	2103	Civil Engineering Measurements
CE	2513	Dynamics
CE	2633	Environmental Engineering
CE	3103	Mechanics of Solids
CE	3113	Structural Analysis
CE	3213	Reinforced Concrete Design
CE	3233	Steel Design
CE	3243	Properties and Behavior of Engineering Materials
CE	3413	Geotechnical Engineering and Applications
CE	3603	Fluid Mechanics
CE	3633	Water and Wastewater Treatment
CE	3713	Civil Engineering Systems Analysis
CE	4123	Highway Engineering
CE	4313	Computer-Aided Design in Civil Engineering
CE	4543	Construction Planning and Management
CE	4603	Water Resources Engineering
CE	4803	Engineering Practice
CE	4813	Civil Engineering Design
EGR	2103	Statics
EGR	3713	Engineering Economic Analysis
GEO	4023	Engineering Geology
STA	2303	Applied Probability and Statistics for Engineers

B. 6 semester credit hours of civil engineering electives must be selected from the following list:

CE	3253	Introduction to Masonry and Timber Design
CE	3723	Applied Hydrology
CE	4233	Transportation Systems
CE	4413	Foundation Analysis and Design
CE	4653	Design of Pollution Control Systems
CE	4723	Hydraulic Systems Design

**COURSE DESCRIPTIONS**  
**CIVIL ENGINEERING**  
**(CE)**

- 1301 Introduction to Civil Engineering**  
(1-0) 1 hour credit.  
Engineering as a career, engineering ethics, and approaches to engineering problem formulation and solution using principles of design and decision making. (Formerly EGR 1301. Credit cannot be earned for both CE 1301 and EGR 1301.)
- 1403 Engineering Communication**  
(2-3) 3 hours credit.  
Technical communication: oral, written, and graphic; introduction to engineering analysis, design, and synthesis; and computer-aided graphics. (Formerly EGR 1402. Credit cannot be earned for both CE 1403 and EGR 1402.)
- 2103 Civil Engineering Measurements**  
(2-3) 3 hours credit. Corequisite: MAT 1214.  
Principles of measurement and error analysis; application of equipment to acquire, analyze, and control data in civil engineering systems; and introduction to plane surveying. (Formerly CE 2113. Credit cannot be earned for both CE 2103 and CE 2113.)
- 2513 Dynamics**  
(3-0) 3 hours credit. Prerequisites: EGR 2103 and completion of or concurrent enrollment in EGR 2323.  
Engineering applications of virtual work, kinematics and kinetics of particles and plane rigid bodies, equations of motion, work and energy, impulse momentum, and vibrations. (EGR 2213 cannot be substituted for CE 2513.) [TCCN: ENGR 2302.]
- 2633 Environmental Engineering**  
(3-0) 3 hours credit. Prerequisites: CHE 1103 and PHY 1904.  
Principles, analysis, and design related to environmental monitoring, protection, and remediation systems. Topics include environmental quality and legislation, modeling, water treatment, wastewater treatment, solid and hazardous waste management, air and noise pollution, and radioactive waste management. (Formerly CE 2133. Credit cannot be earned for both CE 2633 and CE 2133.)
- 3103 Mechanics of Solids**  
(2-3) 3 hours credit. Prerequisites: EGR 2103 and EGR 2323.  
Internal forces and deformations in solids; stress, strain, and their relations; stresses and deflections in beams column theory and analysis; and engineering applications. (Formerly EGR 3213. Credit cannot be earned for both CE 3103 and EGR 3213.)
- 3113 Structural Analysis**  
(3-0) 3 hours credit. Prerequisite: CE 3103.  
Forces and deflections in structural systems; considers stationary and moving loads and exact and approximate methods.
- 3213 Reinforced Concrete Design**  
(2-3) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in CE 3113.  
Ultimate strength theory and design for reinforced concrete members.
- 3233 Steel Design**  
(2-3) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in CE 3113.  
Analysis and design of tension members, beams, columns, and bolted or welded connections.

**3243 Properties and Behavior of Engineering Materials**

(2-3) 3 hours credit. Prerequisites: CE 3103 and STA 2303.

Structure, properties, and behavior of engineering materials; measurement and analysis of material properties and behavior. Laboratory exercises illustrate typical material behavior and selected principles of mechanics.

**3253 Introduction to Masonry and Timber Design**

(3-0) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in CE 3113.

Design philosophy and methodology for masonry and timber structures. Flexure design, axial load design, and shear design of basic masonry and timber components.

**3413 Geotechnical Engineering and Applications**

(2-3) 3 hours credit. Prerequisite: CE 3103. Corequisite: GEO 4023.

Exploration, sampling, and in-situ measurements; laboratory testing; review of fundamental properties of soil and rock; flow-through porous media; the effective stress principle and computation of in-situ stress distributions; shear strength of soils and one-dimensional consolidation settlement; introduction to slope stability. (Formerly CE 4213. Credit cannot be earned for both CE 3413 and CE 4213.)

**3603 Fluid Mechanics**

(2-3) 3 hours credit. Prerequisites: EGR 2103 and CE 2513.

Fluid properties, fluid statics concepts, equations of fluid flow in pipes and open channels, and flow-through porous media.

**3633 Water and Wastewater Treatment**

(2-3) 3 hours credit. Prerequisites: CE 2633 and completion of or concurrent enrollment in CE 3603.

The application of chemical, biochemical, and physical processes to water treatment, wastewater treatment, and pollution control. (Formerly CE 4633. Credit cannot be earned for both CE 3633 and CE 4633.)

**3713 Civil Engineering Systems Analysis**

(3-0) 3 hours credit. Prerequisite: EGR 3713.

Systems approach to problem solving, application of operations research in civil engineering; and mathematical modeling and analysis techniques including marginal analysis, linear programming, and dynamic programming and decision analysis. (Formerly CE 4713. Credit cannot be earned for both CE 3713 and CE 4713.)

**3723 Applied Hydrology**

(3-0) 3 hours credit. Prerequisite: CE 3603.

Hydrologic cycle, precipitation, hydrologic abstractions, surface runoff; unit hydrographs; synthetic hydrographs; peak discharge relationships; flood frequency analysis; flood and reservoir routing; and groundwater hydrology.

**4123 Highway Engineering**

(3-0) 3 hours credit. Prerequisite: STA 2303.

General characteristics of highway design; horizontal and vertical alignment, cross-sections, earthwork, drainage, and pavement; and economic analysis.

**4233 Transportation Systems**

(3-0) 3 hours credit. Prerequisite: STA 2303.

Planning, design, construction, operation, and maintenance of transportation systems; and concepts of various modes of transportation. (Formerly CE 4113. Credit cannot be earned for both CE 4233 and CE 4113.)

**4313 Computer-Aided Design in Civil Engineering**

(2-3) 3 hours credit. Prerequisite: CE 2633.

Organization and programming of civil engineering problems for computer solutions; and application of computer-aided design in civil engineering.

- 4413 Foundation Analysis and Design**  
(3-0) 3 hours credit. Prerequisite: CE 3413.  
Design of footings, mats and slab-on-grade; earth pressures and design of retaining walls, piles and drilled piers; soil improvement and ground modification.
- 4543 Construction Planning and Management**  
(3-0) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in EGR 3713.  
Planning and managing, scheduling, and control of construction projects. Topics include management functions, network techniques, equipment selection, management and operation, construction financing, bidding strategy, risk assessment, cost control, and projection.
- 4603 Water Resources Engineering**  
(3-0) 3 hours credit. Prerequisites: CE 2633 and CE 3603.  
Analysis and design of surface and subsurface water resource facilities. Design of water supply, wastewater collection, and stormwater systems.
- 4653 Design of Pollution Control Systems**  
(2-3) 3 hours credit. Prerequisite: CE 3633.  
Analysis, synthesis, design, and system optimization of integrated processes and operations to handle and treat water, wastewater, and hazardous wastes.
- 4723 Hydraulic Systems Design**  
(3-0) 3 hours credit. Prerequisites: CE 3723 and CE 4603.  
Analysis and design of water resource systems; dam and reservoir design for recharge, flood control, and water supply, and demand forecasting, optimization of multiobjective systems, and allocations planning and management.
- 4803 Engineering Practice**  
(3-0) 3 hours credit. Prerequisites: Completion of or concurrent enrollment in CE 3413 and CE 3713. CE 4803 must be taken one semester prior to CE 4813.  
Civil Engineering design process, project proposal, project specifications, and project management. Develop design team, define a multidisciplinary project, and present the project proposal for approval. Teams and projects will be continued in CE 4813.
- 4813 Civil Engineering Design**  
(2-3) 3 hours credit. Prerequisites: CE 3413, CE 3713, and CE 4803. Corequisites: CE 3213, CE 3633, CE 3233 and CE 4603.  
Opportunity to apply design skills to execution of an open-ended integrated civil engineering design project, including field and laboratory investigations, numerical and scale modeling, design, and formal oral and written presentation of results. Considers safety, reliability, environmental, economic, and other constraints, and ethical and social impacts.
- 4911-3 Independent Study**  
1 to 3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Department Chair and Dean of the College.  
Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.
- 4953 Special Studies in Civil Engineering**  
(3-0) 3 hours credit. Prerequisite: Consent of instructor.  
An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

## **DEPARTMENT OF ELECTRICAL ENGINEERING**

The Department of Electrical Engineering (EE), the largest department in the College of Engineering, offers a Bachelor of Science degree with concentrations in Control System Engineering, Communication and Digital Signal Processing (DSP) System Engineering, and Computer Engineering. The program is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (EAC/ABET). Individuals enrolling in this degree program are given an opportunity to develop a strong background in the engineering sciences and to learn the analysis, design, and synthesis tools necessary to function well as active participants in many traditional, new, and emerging areas of technology. The Cooperative Education in Engineering Program formally integrates students' University studies with institutionally supervised work experiences at cooperating organizations. The majority of students have had engineering-related experience during their Bachelor's degree. The EE department continues to be recognized locally and nationally for the quality of its undergraduate program. As a result, EE graduates continue to find high-paying jobs or are accepted into graduate schools nationwide.

### **Bachelor of Science Degree in Electrical Engineering**

The Bachelor of Science degree in Electrical Engineering offers students the opportunity to prepare for careers in areas associated with electronics, digital systems, computer architecture and design, communications, controls and robotics, computer-aided design (CAD), instrumentation, bioengineering, and other traditional and emerging areas of high technology. Through the proper selection of elective courses to augment required courses, successful students may develop a specialization pertinent to many of these areas that may lead to employment with electronic companies, high-technology industries, and government agencies.

The electrical engineering curriculum allows the student to study a single topic in depth by choosing electives from one of the three technical areas: computer engineering, communication and DSP system engineering, and control system engineering. At least three technical elective courses must be selected from a single technical area.

The educational objectives of the Electrical Engineering program are that:

1. Graduates will have strong abilities in the fundamentals in mathematics, engineering, and science.
2. Graduates will possess sound capabilities in critical thinking and problem solving essential for a successful engineering career.
3. Graduates will gain knowledge in current electrical engineering methodologies and tools and be able to apply them to remain competitive.
4. Graduates will be able to make a contribution to the greater society in both the short and long term.

### **Meeting Program Objectives**

To meet the program objectives, the curriculum is organized into a flexible 129 semester-credit-hour structure that provides high-quality education in the fundamentals of engineering, in addition to a thorough coverage of the major specialties within electrical engineering. A selection of technical electives is provided to allow concentration in depth in selected areas: computer engineering, communication and DSP system engineering, and control system engineering.

Highly qualified faculty work in concert to provide and to evolve a curriculum that is challenging to students, with depth in engineering science, design orientation, and modern laboratory experience. The curriculum objectives are accomplished via a three-tiered curriculum structure comprised of the lower-division core (the first two years), the upper-division core (concentrated primarily in the third year), and the senior-level electives, which are briefly described below.

### **Lower-Division Core**

The lower-division core provides students with a basic background in mathematics, physics, and chemistry; computer hardware and software fundamentals; electric circuit fundamentals and electrical engineering laboratory experience; statics and dynamics; and communication skills, humanities, and social sciences. The lower-division core relates to objectives 1 and 2. EGR 2213 Statics and Dynamics is outside the discipline, but electrical engineering students take the course with students from other engineering disciplines.

## Upper-Division Core

The upper-division core for electrical engineering provides students with a basic education in the fundamentals of electrical engineering. These courses include fundamental circuits (3 semester credit hours), controls (3 semester credit hours), energy conversion (3 semester credit hours), electromagnetics (3 semester credit hours), electronics (6 semester credit hours), logic design (3 semester credit hours), and probability and random processes (3 semester credit hours). Many of these fundamental courses include the usage of modern software tools for design and analysis. These fundamentals are supplemented with one hands-on laboratory course (3 semester credit hours). Written and technical communication is further emphasized in the laboratory course. The upper-division core relates to objectives 1, 2, and 3.

## Senior-Level Electives

In the senior year, electrical engineering students enroll in five technical electives (15 semester credit hours), a senior laboratory course (3 semester credit hours), and the capstone design sequence (4 semester credit hours). The technical elective courses involve modern software tools. The capstone sequence not only provides a major design experience but also emphasizes team work, proposal development, communication skills, and professional and ethical responsibility. Students are required to choose one of the three technical areas and to select a minimum of three technical electives (9 semester credit hours) from that single area. The remaining two technical electives (6 semester credit hours) may be selected either from the same area or from the other two areas, including one course at the graduate-level and/or 3 semester credit hours from an engineering cooperative program. The engineering co-operative program provides an opportunity for students to obtain practical experience by enrolling in three semesters (one semester credit hour each semester) and working in an approved industry. Students who want to pursue graduate studies are encouraged to enroll in a graduate class during their last semester, which will be counted as one of the remaining technical electives.

## Engineering Design Experience

The engineering design experience is integrated throughout the program. Modern software tools usage, design and analysis, and formal written report writing are integrated components of several of the electrical engineering courses. EE 3113 Electrical Engineering Laboratory I and EE 4113 Electrical Engineering Laboratory II emphasize hands-on experiments using basic to advanced capability instruments and formal written, as well as oral, reports. Other electrical engineering classes that use software tools include EE 3313 Electronic Circuits I, EE 3413 Analysis and Design of Control Systems, EE 3423 Signals and Systems I, EE 3463 Microcomputer Systems I, EE 3563 Digital Systems Design, and EE 4313 Electronic Circuits II. Engineering design is distributed throughout the curriculum starting from the second semester in EE 2513 Logic Design. In the third semester, students take EE 3563 Digital Systems Design, which deals with design and simulation of sequential digital systems. During the fourth semester, students take EE 3313 Electronic Circuits I and EE 3113 Electrical Engineering Laboratory I, which provide students with significant design components. During the fifth semester, analog control systems design is covered in EE 3413 Analysis and Design of Control Systems. In the sixth semester, students take EE 4313 Electronic Circuits II, which deals with design and analysis of advanced analog circuits. In the seventh and eighth semesters, students take five technical elective courses, which all have design components. During the seventh semester, students also take EE 4113 Electrical Engineering Laboratory II, which includes design-oriented automated testing as important attributes.

All candidates for this degree must fulfill the Core Curriculum requirements, the general engineering requirements, and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Science degree in Electrical Engineering must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both major requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II

<b>Domain I: Mathematics and Science</b>	<p><b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.</p> <p>Note: MAT 1214, CHE 1103, and PHY 1904 may be used to satisfy the Core Curriculum requirements for Domain I, as well as several of the General Engineering requirements.</p>
<b>Domain II: Society and Culture</b>	<p><b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours under this section in the list of core courses will satisfy this core requirement.</p> <p><b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>Economics</b> (3 semester credit hours) ECO 2023 Introductory Microeconomics</p>
<b>Domain III: Literature and the Arts</b>	<p><b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### General Engineering Requirements

All degree-seeking candidates in engineering must complete the following 26 semester credit hours, as well as the Core Curriculum requirements and major requirements:

CHE	1103	General Chemistry I
EGR	1303	Exploring the Engineering Profession
EGR	2323	Applied Engineering Analysis I
MAT	1214	Calculus I
MAT	1223	Calculus II
PHY	1904, 1911	Technical Physics I and Laboratory
PHY	1924, 1931	Technical Physics II and Laboratory

### Degree Requirements

All degree-seeking candidates in Electrical Engineering must complete the following semester credit hours, as well as the Core Curriculum requirements and general engineering requirements:

A. 58 semester credit hours of required courses:

1. 52 semester credit hours of electrical engineering:

ECO	2023	Introductory Microeconomics
EE	2423	Network Theory
EE	2513	Logic Design

EE	3113	Electrical Engineering Laboratory I
EE	3213	Electromagnetic Engineering
EE	3313	Electronic Circuits I
EE	3413	Analysis and Design of Control Systems
EE	3423	Signals and Systems I
EE	3463	Microcomputer Systems I
EE	3513	Electromechanical Systems
EE	3523	Signals and Systems II
EE	3563	Digital Systems Design
EE	4113	Electrical Engineering Laboratory II
EE	4313	Electronic Circuits II
EE	4811	Electrical Engineering Design I
EE	4813	Electrical Engineering Design II
EGR	2213	Statics and Dynamics
EGR	3323	Applied Engineering Analysis II

2. 6 semester credit hours of supporting courses:

CS	2073	Computer Programming with Engineering Applications
STA	3533	Probability and Random Processes or
EE	3533	Random Signals and Noise

B. 15 semester credit hours of electrical engineering elective courses. At least three courses (9 hours) from one of the following concentrations must be selected.

**Computer Engineering Concentration**

EE	3223	C++ and Data Structures or
CS	3733	Operating Systems
EE	4243	Computer Organization and Architecture
EE	4323	Advanced Electrical Engineering Laboratory
EE	4513	Introduction to VLSI Design
EE	4553	VLSI Testing
EE	4573	Engineering Workstations
EE	4583	Microcomputer Systems II

**Communication and DSP System Engineering Concentration**

EE	4323	Advanced Electrical Engineering Laboratory
EE	4613	Communication Systems
EE	4623	Digital Filtering
EE	4643	Digital Signal Processing
EE	4653	Digital Communications
EE	4663	Digital Image Processing
EE	4673	Data Communication and Networks
EE	4683	Wireless Communications

**Control System Engineering Concentration**

EE	4323	Advanced Electrical Engineering Laboratory
EE	4443	Discrete-Time and Computer-Controlled Systems
EE	4723	Intelligent Robotics

EE	4733	Intelligent Control
EE	4743	Embedded Control Systems
EE	4753	Computer Analysis of Power Systems

Other choices for elective courses include:

EE	4353	Introduction to Modern Optics
EE	4453	Principles of Bioengineering and Bioinstrumentation

## **COURSE DESCRIPTIONS ELECTRICAL ENGINEERING (EE)**

### **2213 Electric Circuits and Electronics**

(3-0) 3 hours credit. Prerequisite: PHY 1924; corequisite: EGR 2323.

Electric, magnetic, and electronic circuits; transient analysis, transforms, and phasors; transformers; solid state devices; analog and digital circuits. Not open to electrical engineering majors. (Formerly EE 2214. Credit cannot be earned for both EE 2213 and EE 2214.)

### **2423 Network Theory**

(3-1) 3 hours credit. Prerequisites: completion of or concurrent enrollment in PHY 1924 and EGR 2323.

Basic network principles; steady state responses to DC and AC signals; transient responses; nodal and loop analysis; Laplace transforms; 2-port analysis; and use of SPICE to solve network problems. One hour of problem solving recitation per week. (Formerly EE 2424. Credit cannot be earned for both EE 2423 and EE 2424.)

### **2513 Logic Design**

(3-1) 3 hours credit. Prerequisites: EGR 1303 and completion of or concurrent enrollment in CS 2073.

Number systems, Boolean algebra, combinational and sequential circuit design; and minimization and implementation. One hour of problem solving recitation per week. (Formerly EE 2514. Credit cannot be earned for both EE 2513 and EE 2514.)

### **3113 Electrical Engineering Laboratory I**

(1-6) 3 hours credit. Prerequisites: EE 2423, EE 2513, and completion of or concurrent enrollment in EE 3313.

Introduction to basic measurement equipment and techniques; use of analog and digital simulation tools; comparison to empirical performance of simple analog communication and digital circuits using discrete devices and circuits; simple subsystem circuit design; and laboratory technical communication.

### **3213 Electromagnetic Engineering**

(3-0) 3 hours credit. Prerequisites: PHY 1924 and completion of or concurrent enrollment in EGR 3323.

Review of vector calculus, Maxwell's equations, electromagnetic waves, dielectrics, and boundary conditions. Selected other topics include wave guides, anisotropic crystal optics, transmission lines, fiber optics, reflection and refraction, and special relativity.

### **3223 C++ and Data Structures**

(3-0) 3 hours credit. Prerequisite: EE 3463.

Review of C++ non-OOP concepts, object-oriented programming, inheritance, virtual functions and polymorphism, and operator overloading. In-depth study of data structures including stacks, queues, linked lists, trees, binary trees and its application to binary search trees and sorting.

### **3313 Electronic Circuits I**

(3-1) 3 hours credit. Prerequisites: PHY 1924, EE 2423, and completion of or concurrent enrollment in EE 3423 or ME 3323.

Electrical properties of semiconductors; P-N junctions; diode circuits; BJTs and FETs; application to digital and analog circuits; and use of SPICE to solve simple circuits. One hour of problem solving recitation per week.

- 3413 Analysis and Design of Control Systems**  
(3-1) 3 hours credit. Prerequisites: EGR 2323 and EE 3423 for electrical engineering majors or ME 3323 for mechanical engineering majors.  
Modeling, analysis, and design of linear automatic control systems; time and frequency domain techniques; stability analysis, state variable techniques, and other topics. Control systems analysis and design software will be used. One hour of problem solving recitation per week. (Formerly EE 4413. Credit cannot be earned for both EE 3413 and EE 4413.)
- 3423 Signals and Systems I**  
(3-1) 3 hours credit. Prerequisites: EGR 2323 and EE 2423.  
Frequency response and complex variables, Fourier series, Fourier transforms, Dirac Delta function, convolution, mathematical modeling of systems, and the Z-transform. One hour of problem solving recitation per week.
- 3463 Microcomputer Systems I**  
(3-0) 3 hours credit. Prerequisites: EE 2513, CS 2073, and completion of or concurrent enrollment in EE 3563.  
Introduction to assembly- and C-language programming; architecture, peripherals, operating system interfacing principles, and development tools; and software documentation techniques. (Formerly EE 4563. Credit cannot be earned for both EE 3463 and EE 4563.)
- 3513 Electromechanical Systems**  
(2-3) 3 hours credit. Prerequisites: EE 3213 and EGR 2213.  
Principles of electromechanical energy conversion; polyphase circuits; dynamic analysis and simulation of energy-transfer devices; and power devices.
- 3523 Signals and Systems II**  
(3-0) 3 hours credit. Prerequisite: EE 3423.  
Time and frequency characteristics of signals and systems, sampling, and application of Laplace transforms and Z transforms to linear time invariant systems and linear feedback systems.
- 3533 Random Signals and Noise**  
(3-0) 3 hours credit. Prerequisite: MAT 1223.  
Probability, statistics, random variables, and random processes, with applications in electrical engineering.
- 3563 Digital Systems Design**  
(2-3) 3 hours credit. Prerequisite: EE 2513.  
Introduction to switching theory; design of complex combinational and sequential circuits; analysis of hazards and fault detection, location, and tolerance; and design and verification of complex circuitry using schematic entry, functional modeling, and mixed-mode simulation.
- 4113 Electrical Engineering Laboratory II**  
(1-6) 3 hours credit. Prerequisites: EE 3113, EE 3463, and EE 4313.  
Complex electronic circuit subsystem design; improving measurement system performance; introduction to automatic test equipment, the design process, and simple system design; and technical communication.
- 4243 Computer Organization and Architecture**  
(2-3) 3 hours credit. Prerequisites: EE 3463 and EE 3563.  
Design of advanced state machines and computer systems, and processor design using computer-assisted design and analysis tools. (Formerly EE 3583. Credit cannot be earned for both EE 4243 and EE 3583.)
- 4313 Electronic Circuits II**  
(3-0) 3 hours credit. Prerequisites: EE 3313 and completion of or concurrent enrollment in EE 3523.  
Multiple transistor circuits; feedback and frequency response analysis; operational amplifier analysis and design; power semiconductors; and other topics. Design of analog and digital circuits; and use of SPICE to analyze complex circuits.

- 4323 Advanced Electrical Engineering Laboratory**  
(1-6) 3 hours credit. Prerequisite: Consent of instructor.  
Laboratory experience in one of the following: controls, optics, digital systems, communications, or instrumentation. May be repeated when topic varies.
- 4353 Introduction to Modern Optics**  
(3-0) 3 hours credit. Prerequisite: EE 3213.  
The basic principles of geometrical and physical optics. Topics include lens design, interference, diffraction, and polarization. Selected other topics may include Fourier optics, coherence theory, holography, lasers, Gaussian beams, acousto-optics, electro-optics, and fiber-optic communications.
- 4443 Discrete-Time and Computer-Controlled Systems**  
(2-3) 3 hours credit. Prerequisites: EE 3413 and completion of or concurrent enrollment in EE 3523.  
Sampled-data techniques applied to the analysis and design of digital control systems; stability criteria; compensation; and other topics.
- 4453 Principles of Bioengineering and Bioinstrumentation**  
(2-3) 3 hours credit. Prerequisites: EE 3213, EE 3413, and completion of or concurrent enrollment in EE 4113.  
Theoretical basis for signal generation, transmission, and detection from biological systems; modeling of biological systems; electrodes and transducer systems; and signal excitation and processing instrumentation.
- 4513 Introduction to VLSI Design**  
(2-3) 3 hours credit. Prerequisites: EE 3463, EE 3563, and completion of or concurrent enrollment in EE 4313.  
Design of integrated digital systems; logic simulation, standard cell libraries, circuit simulation, and other computer-aided design tools; and integrated circuit processing and device modeling.
- 4553 VLSI Testing**  
(2-3) 3 hours credit. Prerequisite: EE 4513.  
Faults modeling and simulation; stuck at faults, bridging faults, and functional testing; self-testing concepts; standard and test patterns; device and system testing; and design for testability.
- 4573 Engineering Workstations**  
(2-3) 3 hours credit. Prerequisites: EE 3463 and EE 3563.  
Design and application of engineering workstations; integration of components and peripherals to address specific engineering design support requirements; and networking considerations.
- 4583 Microcomputer Systems II**  
(2-3) 3 hours credit. Prerequisites: EE 3463 and completion of or concurrent enrollment in EE 4313.  
Advanced microprocessor-based system design; high-speed bus interfacing, coprocessors, and other specialized input/output devices; and high-level languages and software performance analysis.
- 4613 Communication Systems**  
(3-0) 3 hours credit. Prerequisites: EE 3423 and STA 3533 or EE 3533.  
Basic theory and principles of modern analog and digital communication systems; signal and noise analysis, signal-to-noise ratio, and circuit implementations.
- 4623 Digital Filtering**  
(3-0) 3 hours credit. Prerequisites: EE 3423 and completion of or concurrent enrollment in EE 3463.  
Design and implementation of FIR and IIR filters, hardware, and software; and topics from adaptive filtering, neural networks, and image processing.
- 4643 Digital Signal Processing**  
(3-0) 3 hours credit. Prerequisites: Concurrent enrollment or completion of EE 3523, and STA 3533 or EE 3533.  
Transform techniques for discrete signal analysis; discrete representation and analysis of digital filters and other topics; and A/D and D/A conversion and associated filtering techniques.

- 4653 Digital Communications**  
(3-0) 3 hours credit. Prerequisites: EE 3423 and STA 3533 or EE 3533.  
Basic digital modulation schemes: ASK, BPSK, QPSK, FSK, and QAM modulation, binary signal detection, matched filtering, bit error rate, intersymbol interference, equalization, signal-space methods, optimum receiver, fundamentals of information theory and block coding, convolutional coding and spread spectrum.
- 4663 Digital Image Processing**  
(3-0) 3 hours credit. Prerequisite: EE 3523.  
Fundamentals and some practical applications of digital image processing. Topics include image formation, sampling, and quantization; image motion and detector noise; image enhancement and restoration by spatial filtering and maximum entropy; image coding for bandwidth compression by DPCM, transform coding, and entropy coding; and image understanding
- 4673 Data Communication and Networks**  
(2-3) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in EE 4613.  
Introduction to data communication networks, electrical interface, data transmission, WAN and LAN network overview, transmission devices, transmission errors and methods of correction, and protocols.
- 4683 Wireless Communications**  
(2-3) 3 hours credit. Prerequisite: EE 3423, STA 3533 or EE 3533.  
Common wireless systems and standards. Cellular radio concepts: frequency reuse and handoff strategies. Large scale path loss models. Small scale fading and multipath. Modulation techniques for mobile radio: performances in fading and multipath channels. Multiple access techniques. RF hardware realization issues.
- 4723 Intelligent Robotics**  
(2-3) 3 hours credit. Prerequisite: EE 3413 or ME 4523.  
Coordinate transformations, forward and inverse kinematics, Jacobian and static forces, path planning techniques, dynamics, design, analysis and control of robots, sensing and intelligence. (Formerly EGR 4723 and ME 4713. Credit cannot be earned for both EE 4723 and either EGR 4723 or ME 4713.)
- 4733 Intelligent Control**  
(2-3) 3 hours credit. Prerequisite: EE 3413.  
Neural networks and fuzzy logic basics, approximation properties, conventional adaptive controller design and analysis, intelligent controller design and analysis techniques for nonlinear systems, and closed-loop stability.
- 4743 Embedded Control Systems**  
(2-3) 3 hours credit. Prerequisites: EE 3413 and EE 3463.  
Embedded system principles and control system concepts, programming, tools and their applications, embedded controls design, and analysis of industrial processes.
- 4753 Computer Analysis of Power Systems**  
(2-3) 3 hours credit. Prerequisites: EE 3513 and EE 3413.  
Principles of power generation, transmission and distribution, power systems control, and analysis and design of power system operation.
- 4811 Electrical Engineering Design I**  
(1-0) 1 hour credit. Prerequisite: Concurrent enrollment or completion of EE 4113.  
Business planning and project management in engineering design; discussion of ethical and social issues in design; and selection of a design project, development of a detailed design proposal, and approval of a design project.
- 4813 Electrical Engineering Design II**  
(1-6) 3 hours credit. Prerequisites: EE 4113 and EE 4811.  
Complex system design; advanced ATE; project management, proposals, status reporting, formal oral and written technical reports, and business plans; open-ended design project considering safety, reliability, environmental, economic, and other constraints; and ethical and social impacts.

**4911-3 Independent Study**

1 to 3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Department Chair, and Dean of the college.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4953 Special Studies in Electrical Engineering**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

## DEPARTMENT OF MECHANICAL ENGINEERING AND BIOMECHANICS

The Department of Mechanical Engineering and Biomechanics offers a Bachelor of Science degree in Mechanical Engineering. The program is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (EAC/ABET). Individuals enrolling in this degree program are given an opportunity to develop a strong background in the engineering sciences and to learn the analysis, design, and synthesis tools necessary to function well as active participants in many traditional, new, and emerging areas of technology.

The department has excellent laboratory facilities where students receive hands-on instruction by faculty. Computer-aided design (CAD) facilities, including state-of-the-art workstations, are routinely used. Some classes are taught by adjunct faculty from local industries, giving students the opportunity to interact with engineering professionals engaged in relevant engineering practice.

Because of the broad engineering training in this program, graduates may find employment in nearly all industries including companies or government agencies associated with aerospace, automotive, energy, petroleum, manufacturing, and research.

### Bachelor of Science Degree in Mechanical Engineering

The Bachelor of Science degree in Mechanical Engineering (ME) offers students the opportunity to prepare for careers in traditional, new, and emerging technologies of mechanical engineering. Mechanical engineering is a versatile and broadly-based engineering discipline. Basic sciences and mathematics form the foundation of mechanical engineering, which requires an understanding of such subject areas as solid and fluid mechanics, thermal sciences, mechanical design, structures, material selection and processes, mechanical systems and control, and instrumentation.

The two main stems within mechanical engineering are: (1) energy (thermal/fluid sciences) and (2) structures and motion in mechanical systems. Through required coursework, the mechanical engineering curriculum provides educational training in both stems. Through the selection of technical elective courses to augment required courses, students may develop a degree of specialization and depth in one of the two main stems. Design experience is integrated throughout the program. Development of open-ended problem solving skills is a part of all mechanical engineering courses. Design projects with formal report writing are included in many of the required courses, including ME 1403 Engineering Graphics and Design, ME 3823 Machine Element Design, ME 4293 Thermodynamic II, ME 4313 Heat Transfer and Rate Processes, and ME 4603 Finite Element Applications in Mechanical Design. A substantial portion of each technical elective course is devoted to design of systems and components. A capstone design sequence at the senior level provides an opportunity to apply and integrate the knowledge gained throughout the curriculum to the development of an instructor-approved project.

The laboratory requirements are designed to provide the hands-on experience of application of classroom theory. The required laboratories expose undergraduate students to modern measurements and instrumentation techniques. The design of experiments is integrated in both the mechanical systems and control, thermal, and fluid laboratories. Students may receive additional hands-on experiences by selecting technical elective courses with laboratory components.

In addition, opportunities exist for students to participate in research and design projects. Those students eligible for honors may work on more individualized projects. Students also have an opportunity to participate in an approved co-op program and may receive up to 3 semester credit hours for their experience.

The educational objectives of the Bachelor of Science degree in the Mechanical Engineering program are to provide students with opportunities to:

- acquire the ability to apply the fundamentals of mathematics, sciences, and engineering to quantitatively analyze problems
- develop innovative design skills, including the students' ability to formulate problems, to think creatively, to synthesize information, and to communicate effectively
- develop the ability to use modern experimental techniques; collect, analyze, and interpret experimental data; and effectively communicate the results
- prepare students with the diverse skills needed to be successful engineers.

All candidates for this degree must fulfill the Core Curriculum requirements, the general engineering requirements, and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Science degree in Mechanical Engineering must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both major requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement. Note: MAT 1214, CHE 1103, and PHY 1904 may be used to satisfy the Core Curriculum requirements for Domain I, as well as several of the General Engineering requirements.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) ECO 2023 Introductory Microeconomics
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

### General Engineering Requirements

All degree-seeking candidates in engineering must complete the following 26 semester credit hours, as well as the Core Curriculum requirements and major requirements:

CHE 1103	General Chemistry I
EGR 1303	Exploring the Engineering Profession
EGR 2323	Applied Engineering Analysis I
MAT 1214	Calculus I

MAT	1223	Calculus II
PHY	1904, 1911	Technical Physics I and Laboratory
PHY	1924, 1931	Technical Physics II and Laboratory

### Degree Requirements

All degree-seeking candidates in Mechanical Engineering must complete the following semester credit hours, as well as the Core Curriculum requirements and general engineering requirements:

A. 34 semester credit hours of required foundation and general mechanical engineering courses:

ECO	2023	Introductory Microeconomics
EE	2213	Electric Circuits and Electronics
EGR	2103	Statics
EGR	3323	Applied Engineering Analysis II
ME	1403	Engineering Graphics and Design
ME	3173	Numerical Methods in Mechanical Engineering
ME	3241	Materials Engineering Laboratory
ME	3243	Materials Engineering
ME	3312	Electronics and Data Acquisition Laboratory
ME	4811	Mechanical Engineering Design Project Planning
ME	4813	Mechanical Engineering Design Project
STA	2303	Applied Probability and Statistics for Engineers

3 semester credit hours of approved mathematics or science electives. A list of acceptable courses is available in the College of Engineering.

B. 14 semester credit hours of required courses in the “energy” stem of mechanical engineering:

ME	3293	Thermodynamics I
ME	3663	Fluid Mechanics
ME	4293	Thermodynamics II
ME	4313	Heat Transfer and Rate Processes
ME	4802	Thermal and Fluid Laboratory

C. 17 semester credit hours of required courses in the “structures and motions of mechanical systems” stem:

ME	3103	Kinematics and Dynamics
ME	3813	Mechanics of Solids
ME	3823	Machine Element Design
ME	4523	Dynamic Systems and Control
ME	4603	Finite Element Applications in Mechanical Design
ME	4702	Mechanical Systems and Control Laboratory

D. 9 semester credit hours of mechanical engineering elective courses. Each student must choose one of the technical area options listed below. Students are encouraged to select either Option I or Option II to develop technical specialization in one of the two main stems of mechanical engineering. However, students who wish to obtain a broader engineering training may choose Option III, general mechanical engineering. The combined course selection from each option area must contain a minimum of 4 semester credit hours of design. Information on design content hours for mechanical engineering courses is available in the College of Engineering. With prior approval, EGR 4993 Honors Research, ME 4953 Special Studies in Mechanical Engineering, or ME 4963 Topics in Bioengineering may be used as a technical elective. Exceptional undergraduate students may enroll in a graduate course and apply the credit earned to the undergraduate degree requirements. Approval forms are available in the Dean’s Office.

Option I—Specialization in Energy (Thermal/Fluid Systems):

ME	3593	Alternative Energy Sources
ME	4183	Compressible Flow and Propulsion Systems
ME	4323	Thermal Systems Design
ME	4343	Heating, Air Conditioning, and Refrigeration Design
ME	4613	Power Plant System Design
ME	4623	Internal Combustion Engines
ME	4663	Fluid Systems Design
ME	4963	Topics in Bioengineering

Option II—Specialization in Structures and Motions of Mechanical Systems:

ME	3263	Materials Processing
ME	3323	Dynamics of Mechanical Systems
ME	3513	Mechanism Design
ME	4243	Intermediate Materials Engineering
ME	4723	Reliability and Quality Control in Engineering Design
ME	4963	Topics in Bioengineering

Option III—General Mechanical Engineering:

Courses selected from any of the previous two option areas.

## COURSE DESCRIPTIONS MECHANICAL ENGINEERING (ME)

**1403 Engineering Graphics and Design**

(2-3) 3 hours credit. Prerequisite: EGR 1303.

Introduction to engineering graphics: geometric constructions, multi view drawing, dimensioning, sections, pictorials and auxiliary views. Computer-aided design, generation of mechanical drawings, and design projects.

**3103 Kinematics and Dynamics**

(3-1) 3 hours credit. Prerequisites: EGR 2103 and EGR 2323.

Kinematics and kinetics particles and plane rigid bodies, equations of motion, work and energy, impulse momentum, and impact. One hour of problem solving recitation.

**3173 Numerical Methods in Mechanical Engineering**

(2-3) 3 hours credit. Prerequisite: EGR 2323.

Introduction to computational methods including application of Taylor series in numerical techniques, finding roots of functions, solution of linear algebraic equations and matrices, curve fitting procedures, numerical differentiation, integration, and solutions to differential equations. Introduction to basic software packages in engineering applications.

**3241 Materials Engineering Laboratory**

(0-3) 1 hour credit. Corequisite: ME 3243.

Investigation of the properties of engineering materials, with emphasis on metals, sample preparation, metallography, and foundry processes. (Formerly ME 2241. Credit cannot be earned for both ME 3241 and ME 2241.)

**3243 Materials Engineering**

(3-0) 3 hours credit. Prerequisites: CHE 1103 and EGR 2103.

Fundamentals in structures, properties, fabrication, and mechanical behavior of engineering materials. (Formerly ME 2243. Credit cannot be earned for both ME 3243 and ME 2243.)

- 3263 Materials Processing**  
(2-3) 3 hours credit. Prerequisites: ME 3103 and ME 3243.  
Casting, joining, forming, and machining; methods of processing modern engineering materials; and effects of processing on materials.
- 3283 Fundamentals of Thermal Sciences**  
(3-0) 3 hours credit. Prerequisites: EGR 2323 and PHY 1904.  
Introduction to classical thermodynamics; fluid mechanics and heat transfer; thermodynamics systems; first and second laws; thermodynamic cycles; fluid statics and dynamics; applications of conduction, convection, and radiation heat transfer. Not open to students majoring in mechanical engineering. May not be substituted for ME 3293, 3663, or 4313.
- 3293 Thermodynamics I**  
(3-1) 3 hours credit. Prerequisite: EGR 2103.  
Heat, work, kinetic theory of gases, equation of state, thermodynamics system, control volume, first and second law of thermodynamics, reversible and irreversible processes, and introduction to basic thermodynamic cycles. One hour of problem solving recitation.
- 3312 Electronics and Data Acquisition Laboratory**  
(0-6) 2 hours credit. Prerequisites: PHY 1931, STA 2303, and credit for or enrollment in EE 2213.  
Basic experiments with electrical networks, electronic circuits, introduction to computer assisted data acquisition systems and experimental design, comparison of computer-derived models and experimental results.
- 3323 Dynamics of Mechanical Systems**  
(3-0) 3 hours credit. Prerequisite: ME 3103.  
Free and forced single and multiple degree of freedom systems, modeled as both discrete and continuous. Applications in mechanical engineering design problems in the transmission and control of vibration.
- 3513 Mechanism Design**  
(3-1) 3 hours credit. Prerequisite: ME 3103.  
Introduction to mechanisms; displacement, velocity, and acceleration analysis of mechanisms; graphical and linear analytical methods for kinematic synthesis; graphical and analytical design of cam-follower systems; and computer-aided design projects.
- 3593 Alternative Energy Sources**  
(3-0) 3 hours credit. Prerequisite: ME 3293  
Solar, nuclear, wind, hydrogen, and geothermal energy sources. Resources, production, utilization, economics, sustainability, and environmental considerations.
- 3663 Fluid Mechanics**  
(3-0) 3 hours credit. Prerequisites: EGR 3323 and ME 3103.  
Fluid properties; fluid statics; integral and differential analysis of fluid flow; viscous laminar and turbulent flow in conduits; dimensional analysis; boundary layer concepts; drag and lift.
- 3813 Mechanics of Solids**  
(3-1) 3 hours credit. Prerequisite: EGR 2103.  
Internal forces and deformations in solids; stress, strain and their relations; torsion, stresses and deflections in beams; elastic behavior of columns. One hour of problem solving recitation.
- 3823 Machine Element Design**  
(3-1) 3 hours credit. Prerequisites: ME 1403 and ME 3813.  
Introduction to design of machine elements, static failure theories, welded and bolted connections, design of spur and helical gears, design of couplings, clutches, and brakes; and computer-aided design projects. (Formerly ME 4423. Credit cannot be earned for both ME 3823 and ME 4423.)

**4183 Compressible Flow and Propulsion Systems**

(3-0) 3 hours credit. Prerequisites: ME 3293 and ME 3663.

Application of mass, energy, and force balance to compressible fluids; analysis of one-dimensional steady flow, isentropic flow, adiabatic flow, flow with heat addition, supersonic flow, and shock waves. Introduction to the analysis and design of air-breathing engines for aeronautical transportation. (Formerly EGR 4183. Credit cannot be earned for both ME 4183 and EGR 4183.)

**4243 Intermediate Materials Engineering**

(3-0) 3 hours credit. Prerequisites: ME 3241, ME 3243, and ME 3813.

Selected topics in macroscopic and microscopic aspects of the mechanical behavior of metals, ceramics, polymers and composites; introduction to dislocation theory, temperature dependent deformations, engineering failures, and fracture mechanics.

**4293 Thermodynamics II**

(3-0) 3 hours credit. Prerequisites: EGR 3323 and ME 3293.

Energy and availability analysis, reactive and nonreactive mixtures, moist air properties, psychometric systems and analysis, vapor and gas power cycles, refrigeration and heat-pump cycles, and thermodynamic relations.

**4313 Heat Transfer and Rate Processes**

(3-0) 3 hours credit. Prerequisites: ME 3293, ME 3173, and ME 3663.

Generalized potential distribution and gradients; transient and steady heat transfer including conduction, forced and free convection, and radiation.

**4323 Thermal Systems Design**

(3-1) 3 hours credit. Prerequisites: ME 3663 and credit for or enrollment in ME 4313.

Application of basic thermodynamics, fluid mechanics, heat transfer, and computer methods to the design of heat exchangers, coils, fans, pumps, and thermal energy systems.

**4343 Heating, Air Conditioning, and Refrigeration Design**

(3-1) 3 hours credit. Prerequisites: ME 3293, ME 3663, and credit for or enrollment in ME 4313.

Moist air properties; human comfort; solar radiation; heating, ventilation, and air conditioning of buildings; design selection, construction, and operation of air conditioning equipment; and duct design.

**4523 Dynamic Systems and Control**

(3-0) 3 hours credit. Prerequisites: EGR 3323 and ME 3103.

Introduction to modeling and control of dynamic physical systems, analysis and design of control systems for mechanical, electrical, manufacturing, fluid, and thermal systems. (Formerly ME 4522. Credit cannot be earned for both ME 4523 and ME 4522.)

**4603 Finite Element Applications in Mechanical Design**

(2-3) 3 hours credit. Prerequisite: ME 3823.

Finite element method fundamentals, advanced geometric modeling of mechanical components and systems, review of static failure theories, finite element modeling of components, and mechanical design case studies/design projects using a commercial finite element program.

**4613 Power Plant System Design**

(3-1) 3 hours credit. Prerequisites: ME 3663 and ME 4293.

Application of thermodynamics and fluid mechanics to the design of vapor and gas-turbine power plant systems including boilers, condensers, turbines, pumps, compressors, and cooling towers.

**4623 Internal Combustion Engines**

(3-1) 3 hours credit. Prerequisites: ME 3293 and ME 3663.

Application of thermodynamics cycles in design, analysis, and modeling of internal combustion engines including spark-ignition and compression-ignition cycles; thermochemistry, fuels, combustion, emissions, and pollution.

- 4663 Fluid Systems Design**  
(3-1) 3 hours credit. Prerequisites: ME 3663 and ME 3173.  
Review of fundamental laws in integral form; differential continuity, momentum, and energy equations; NavierStokes equations for laminar and turbulent flow; Potential flow theory; and design of fluid systems.
- 4702 Mechanical Systems and Control Laboratory**  
(0-6) 2 hours credit. Prerequisites: ME 3312, ME 3813, and credit for or enrollment in ME 4523.  
Fundamentals of measurement systems; transducers and signal conditioning; strain, force, acceleration, controls and vibration; rotating machinery; and design of experiments.
- 4723 Reliability and Quality Control in Engineering Design**  
(3-0) 3 hours credit. Prerequisites: EGR 3323 and STA 2303.  
Introduction to statistical methods in reliability and probabilistic engineering design methodology; statistical quality control and inspection; life prediction and testing; and design optimization.
- 4802 Thermal and Fluid Laboratory**  
(0-6) 2 hours credit. Prerequisites: ME 3312, ME 3663, and credit for or enrollment in ME 4313.  
An experimental laboratory concerned with fluid statics, fluid flow, heat transfer, internal combustion engines, and design of experiments.
- 4811 Mechanical Engineering Design Project Planning**  
(0-3) 1 hour credit. Prerequisites: ECO 2023, ME 3663, ME 3823, and credit for or enrollment in ME 4313.  
Approval of design project proposals, computer-aided synthesis, analysis, and modeling of an open-ended problem. Development and presentation of conceptual designs. Industrial cooperation is encouraged.
- 4813 Mechanical Engineering Design Project**  
(2-3) 3 hours credit. Prerequisites: ME 4811 and ME 4313.  
Development of a working design of an instructor-approved design project using computer-aided synthesis, analysis, modeling, and optimization methods. Industrial cooperation encouraged; considerations of safety, reliability, environmental, and economic constraints; and ethical and social impacts.
- 4911-3 Independent Study**  
1 to 3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Department Chair, and Dean of the College.  
Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.
- 4953 Special Studies in Mechanical Engineering**  
(3-0) 3 hours credit. Prerequisite: Consent of instructor.  
An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.
- 4963 Topics in Bioengineering**  
(3-0) 3 hours credit. Prerequisites: Will depend on the topics.  
Topics may include: biomechanics, biological systems and medical devices, properties and compatibility of biomaterials, biofluids and transport phenomena. May be repeated for credit when topics vary.

## RESERVE OFFICER TRAINING CORPS PROGRAMS

**Air Force ROTC:** UTSA students may enroll in courses that are required in order to become a commissioned officer in the United States Air Force. The Air Force Reserve Officer Training Corps (ROTC) is voluntary and open to all qualified students, male and female. All courses are held on the UTSA campus.

Trinity University, St. Mary's University, University of the Incarnate Word, Our Lady of the Lake University, or any Alamo Community College student may enroll in Air Force ROTC at UTSA. These students will attend classes on the UTSA campus.

Nursing students at The University of Texas Health Science Center may enroll in Air Force ROTC at UTSA.

### **Air Force Reserve Officer Training Corps Program**

To obtain a commission as an officer in the United States Air Force, a baccalaureate degree in one of the disciplines offered by UTSA and completion of either the Four-Year Program or the Two-Year Program in Aerospace Studies is required. Entering students may enroll in the Four-Year Program, and students with at least two academic years remaining in college may apply for the Two-Year Program.

Credit for aerospace studies courses may be applied toward a baccalaureate degree, but mainly as free electives. There is a maximum number of semester credit hours of aerospace studies that may be applied to the degree requirements for each major. Credit for aerospace studies courses awarded by another accredited college or university is accepted by UTSA as credit, within the same limitations as aerospace studies credit earned at the University.

**Four-Year Program:** This program does not require a formal application for admission and consists of 16 semester credit hours of aerospace studies. Any student wishing to participate in the freshman- and sophomore-level courses of Air Force ROTC may enroll for these classes at the same time and in the same manner as for other UTSA courses. The freshman and sophomore courses comprise the General Military Course (GMC). Membership as a cadet in the GMC does not confer any military status or commitment upon the student. During the GMC, students can compete for admission to the Professional Officer Course, which is described below. Cadets in the Four-Year Program attend a paid four-week field training course the summer between their sophomore and junior years.

**Two-Year Program:** This program consists of the Professional Officer Course (POC), the last two years of the Four-Year Program, and requires 12 semester credit hours. Acceptance into the Two-Year Program is based on competitive standards, and students must be accepted by the Air Force before registration for classes. Students interested in the program are encouraged to start the application process in the semester preceding the academic year in which they intend to enter the program. Application can be made in person or in writing to the professor of aerospace studies.

All students in Air Force ROTC are issued books and uniforms for use in ROTC classes. In addition, all POC students enlist in the Air Force Reserve and receive a monthly subsistence allowance.

A required leadership laboratory graded on a pass/fail basis is conducted in conjunction with all aerospace studies courses. This laboratory offers students the opportunity to learn and practice the skills and techniques required to be an Air Force officer within a realistic Air Force organizational framework. It also provides cadets with opportunities to learn about the conduct of Air Force missions and operations through guest lectures and field trips.

Cadets may apply for Air Force ROTC scholarships. Three- and two-year scholarships are available and pay tuition, fees, books, and a monthly subsistence allowance for the duration of the scholarship. All eligible students in the GMC may apply for these scholarships. Scholarships are awarded competitively, based on academic merit. Two-Year Program applicants may apply for two-year scholarships the summer before the entry into the POC.

## Minor in Aerospace Studies

This minor is designed to enhance the aerospace studies (Air Force Reserve Officer Training Corps) curriculum. A Minor in Aerospace Studies (ASC) will develop a well-rounded perspective of a future Air Force officer's role and decision-making ability in political, sociological, historical, and geographical arenas.

All students pursuing a Minor in Aerospace Studies must complete 20 semester credit hours.

A. 2 semester credit hours of required core courses:

ASC	2031	The Evolution of United States Air Force Air and Space Power I
ASC	2041	The Evolution of United States Air Force Air and Space Power II

B. 9 semester credit hours (6 of which must be at the upper-division level) selected from the following:

ASC	1031	The Foundation of the United States Air Force I
ASC	1041	The Foundation of the United States Air Force II
ASC	3013	Air Force Leadership Studies I
ASC	3023	Air Force Leadership Studies II
ASC	4013	National Security Affairs/Preparation for Active Duty I
ASC	4023	National Security Affairs/Preparation for Active Duty II

C. 9 semester credit hours (6 of which must be upper-division level) selected from the following:

GRG	1023	World Regional Geography
GRG	3314	Introduction to Geographic Information Systems
GRG	3643	Political Geography
HIS	3823	History of American Foreign Relations
POL	1213	Topics in Texas and American Politics
POL	2603	International Politics
POL	3293	Political Movements
POL	3403	European Politics
POL	3423	Geopolitics of Russia and Eurasia
POL	3433	Governments and Politics of Southeast Asia
POL	3443	Governments and Politics of East Asia
POL	3463	Politics of the Third World
POL	3493	Politics of the Middle East
POL	3503	American Foreign Policy since World War II
POL	3523	Force in International Politics
POL	3563	Current Issues in World Politics
PSY	2533	Social Psychology
SOC	3103	Complex Organization
SOC	4063	Civil-Military Relations

To declare a Minor in Aerospace Studies, obtain advice, or seek approval of substitutions for course requirements, students should consult the professor of aerospace studies in the College of Engineering.

### COURSE DESCRIPTIONS AEROSPACE STUDIES (ASC)

#### 1031 The Foundation of the United States Air Force I

(1-1) 1 hour credit.

A survey course designed to introduce students to the United States Air Force and Air Force Reserve Officer Training Corps. Focuses on mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force opportunities, and an introduction to communication skills. Leadership Laboratory is mandatory for AFROTC cadets and compliments the course by providing cadets with followership experiences.

**1041 The Foundation of the United States Air Force II**

(1-1) 1 hour credit.

A continuation of ASC 1031, students progress in acquiring skills and demonstrating their proficiency. Leadership Laboratory is mandatory for AFROTC cadets and compliments the course by providing cadets with followership experiences.

**2031 The Evolution of United States Air Force Air and Space Power I**

(1-1) 1 hour credit.

Examines general aspects of air and space power through a historical perspective. Covers a time period from the first balloons and dirigibles to the space-age global positioning systems of the Persian Gulf War. Historical examples are provided to extrapolate development of AF capabilities and missions to demonstrate the evolution of today's USAF air and space power. Examines several fundamental truths associated with war in the third dimension. Reviews importance of AF core values with use of operational examples and historical AF leaders. Stresses development of communication skills. Leadership Laboratory is mandatory for AFROTC cadets and compliments the course by providing cadets with followership experiences.

**2041 The Evolution of United States Air Force Air and Space Power II**

(1-1) 1 hour credit.

A continuation of ASC 2031, students progress in acquiring skills and demonstrating their proficiency. Leadership Laboratory is mandatory for AFROTC cadets and compliments the course by providing cadets with followership experiences.

**3013 Air Force Leadership Studies I**

(3-1) 3 hours credit.

A study of leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, and communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. Leadership Laboratory is mandatory for AFROTC cadets and compliments the course by providing advanced leadership experiences in officer-type activities, giving students the opportunity to apply leadership and management principles.

**3023 Air Force Leadership Studies II**

(3-1) 3 hours credit.

A continuation of ASC 3013, students progress in acquiring skills and demonstrating their proficiency. Leadership Laboratory is mandatory for AFROTC cadets and compliments the course by providing advanced leadership experiences in officer-type activities, giving students the opportunity to apply leadership and management principles.

**4013 National Security Affairs/Preparation for Active Duty I**

(3-1) 3 hours credit.

Examines the national security process, regional studies, advanced leadership ethics, and Air Force doctrine. Special topics of interest focus on the military as a profession, officership, military justice, civilian control of the military, preparation for active duty, and current issues affecting military professionalism. Within the structure, continued emphasis is given to refining communication skills. Leadership Laboratory is mandatory for AFROTC cadets and compliments the course by providing advanced leadership experiences in officer-type activities, giving students the opportunity to apply leadership and management principles.

**4023 National Security Affairs/Preparation for Active Duty II**

(3-1) 3 hours credit.

Continuation of ASC 4013, students progress in acquiring skills and demonstrating their proficiency. Leadership Laboratory is mandatory for AFROTC cadets and compliments the course by providing advanced leadership experiences in officer-type activities, giving students the opportunity to apply leadership and management principles.

Photo – Chapter 5: College of Liberal and Fine Arts

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# COLLEGE OF LIBERAL AND FINE ARTS

## DEPARTMENT OF ANTHROPOLOGY

The Department of Anthropology offers a Bachelor of Arts degree in Anthropology and minors in Anthropology and American Indian Studies. Honors may also be earned in Anthropology.

### Department Honors

The Department of Anthropology awards Department Honors to certain of its outstanding students and provides the opportunity for advanced study under close faculty supervision.

Selection of students for honors designation is based on the student's academic performance and recommendation by the faculty in the student's major discipline. To be eligible for the program, students must have a minimum overall grade point average of 3.0 at UTSA and a minimum grade point average of 3.5 in their major at UTSA. The minimum grade point averages must be maintained for students to receive the approval of the Department Honors Committee and the discipline faculty. Students applying for Department Honors are expected to enroll in the appropriate honors thesis courses during their final two semesters. The completed thesis must be approved by the supervising faculty sponsor and another departmental faculty member.

Students interested in this program should contact their faculty advisors for additional information.

### Bachelor of Arts Degree in Anthropology

The minimum number of semester credit hours required for this degree, including Core Curriculum requirements, is 120. Thirty-nine of the total semester credit hours required for the degree must be at the upper-division level.

All candidates for this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Anthropology must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One (including ANT 2033 Introduction to Physical Anthropology or ANT 2043 Introduction to Archaeology) and three hours from Level Two will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) ANT 1013 Introduction to Anthropology</p> <p><b><i>Economics</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours): Any three hours listed here will satisfy this core requirement. ANT 2053 Introduction to Cultural Anthropology ANT 2063 Language, Thought, and Culture</p>

### Degree Requirements

- A. 39 semester credit hours in the major, 27 of which must be at the upper-division level:
1. 12 semester credit hours of required courses:
    - ANT 2033 Introduction to Physical Anthropology
    - ANT 2043 Introduction to Archaeology
    - ANT 2053 Introduction to Cultural Anthropology
    - ANT 2063 Language, Thought, and Culture
  2. 9 upper-division semester credit hours chosen in consultation with the student's advisor:
    - 3 semester credit hours in archaeology
    - 3 semester credit hours in cultural anthropology
    - 3 semester credit hours in physical anthropology
  3. 18 additional upper-division semester credit hours of anthropology electives excluding ANT 4913 Independent Study, chosen in consultation with the student's advisor.
- B. 9 semester credit hours of work from another discipline that supports the study of anthropology. The support area must form a cohesive program of study and must be chosen in consultation with the student's faculty advisor after completion of 12 semester credit hours of anthropology. Recommended areas for support work include, but are not limited to, foreign languages, statistics, computer science, earth sciences, environmental sciences, and social sciences. The student should file a statement of intent and the list of courses to be taken in the support area with the undergraduate advisor for Anthropology in the College of Liberal and Fine Arts Advising Center.
- C. 30 semester credit hours of electives

## Minor in Anthropology

All students pursuing a Minor in Anthropology must complete 18 semester credit hours.

A. 9 semester credit hours of courses selected from the following:

ANT	2033	Introduction to Physical Anthropology
ANT	2043	Introduction to Archaeology
ANT	2053	Introduction to Cultural Anthropology
ANT	2063	Language, Thought, and Culture

B. 9 additional upper-division semester credit hours:

3 semester credit hours in archaeology
3 semester credit hours in cultural anthropology
3 semester credit hours in physical anthropology

To declare a Minor in Anthropology, obtain advice, obtain lists of relevant courses, or seek approval of substitutions for course requirements, students should consult the undergraduate advisor for Anthropology in the College of Liberal and Fine Arts Advising Center.

## Minor in American Indian Studies

Eighteen semester credit hours are required for the Minor in American Indian Studies, at least 9 semester credit hours of which must be drawn from outside a student's major. Hours are selected from the following:

AHC	3423	Pre-Columbian Art and Architecture of Mesoamerica
ANT	3153	Indians of the Great Plains
ANT	3253	Archaeology of South America
ANT	3263	Archaeology of North America
ANT	3273	Ancient Civilizations of Mesoamerica
ANT	3323	Native American Art
ANT	3363	Indians of Mesoamerica
ANT	3833	Indians of Texas
ANT	4113	Archaeology of Texas
ANT	4123	Archaeology of the American Southwest
HIS	3063	The Spanish Borderlands, 1521-1821
HIS	3073	The Mexican Borderlands/The American Southwest
HIS	3083	History of the American West
HIS	3113	The American Indian
HIS	3403	Pre-Hispanic and Colonial Latin America
SOC	3133	Sociology of Pluralism in the Southwest

To declare a Minor in American Indian Studies, obtain advice, obtain lists of relevant courses, or seek approval of substitutions for course requirements, students should consult the undergraduate advisor for Anthropology in the College of Liberal and Fine Arts Advising Center.

## COURSE DESCRIPTIONS ANTHROPOLOGY (ANT)

**1001 Freshman Topics in Anthropology**

(1-1) 1 hour credit.

Required for entering freshmen in the College of Liberal and Fine Arts with less than 15 hours of coursework and who are interested in majoring in Anthropology. Critical study of topics in anthropology. Innovative classroom and learning techniques are used to introduce students to these topics and to help strengthen critical thinking, problem solving, and writing skills. A maximum of three semester credit hours of freshman topics courses may apply to a bachelor's degree, although this specific topic may be taken only once.

**1013 Introduction to Anthropology**

(3-0) 3 hours credit.

The study of human culture, past and present; its origin, development, and contemporary change; and the exploration of human physical and cultural differences using the paradigm of adaptation. [TCCN: ANTH 2346.]

**2033 Introduction to Physical Anthropology**

(3-0) 3 hours credit.

Examines basic issues, concepts, and orientations of physical anthropology, regarding human development and variation both past and present, as well as the relationship between human biology and culture. [TCCN: ANTH 2301.]

**2043 Introduction to Archaeology**

(3-0) 3 hours credit.

A problem solving approach to classic and contemporary questions in archaeology. The nature of anthropological inquiry as reflected in the field is stressed. [TCCN: ANTH 2302.]

**2053 Introduction to Cultural Anthropology**

(3-0) 3 hours credit.

This course discusses culture and other basic anthropological concepts and their use in understanding variation in economy, social structure, and ideology. Ethnographic descriptions provide examples of cross-cultural variation. Attention is also given to processes governing culture continuity and change. (Formerly ANT 2023. Credit cannot be earned for both ANT 2053 and ANT 2023.) [TCCN: ANTH 2351.]

**2063 Language, Thought, and Culture**

(3-0) 3 hours credit.

This course surveys anthropological approaches to the study of language, emphasizing the relation between language and worldview, and the social uses of speech. Instruction is given in the fundamentals of descriptive linguistics. The biological basis of language and patterns of historical development are also examined. (Formerly ANT 2023. Credit cannot be earned for both ANT 2063 and ANT 2023.)

**3103 Social Organization**

(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2053 recommended.

Comparative analysis of family and social organization, primarily among non-literate peoples.

**3133 Ritual and Symbol**

(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2053 recommended.

An examination of rituals—highly stereotyped, stylized, and repetitive acts usually taking place in carefully selected locations and marked by use of material items. Students will be offered an introduction to symbolic anthropology through the study of ritual and its material culture.

**3153 Indians of the Great Plains**

(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2053 recommended.

An examination of the fundamental cultural transformation and flourishing of Native American societies of the Great Plains following the introduction of the horse. Attention is also given to the subsequent retrenchment under the imposition of Anglo-American dominance, and the recent emergence of new forms of cultural expression within tribal and urban areas.

- 3173 Ethnomedicine: Theory and Applications**  
(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2053 recommended.  
Integration of sociocultural and medical approaches to health maintenance based on cross-cultural and contemporary urban research. Evidence for the efficacy of non-Western medical practices, the interaction of medical systems in biethnic social situations, cross-cultural studies of mental health, and the analysis of cross-ethnic programs of medical care receive attention.
- 3223 Cultural Ecology**  
(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2053 recommended.  
Human adaptation to the environment and interaction with it, comparing simple and complex societies in various environmental contexts.
- 3253 The Archaeology of South America**  
(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2043 recommended.  
The origins and development of the native cultures of South America, and their relationships to the cultural areas of Central America and the Caribbean. Emphasis on the variety of cultural forms and cultural evolution. The roles of demography, subsistence systems, militarism, religion, and other factors in the rise of South American cultures may be discussed.
- 3263 Archaeology of North America**  
(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2043 recommended.  
Survey of prehistoric cultures in North America from earliest times to historic contact. May include discussion of Ice Age mammoth hunters, Eastern mound-building cultures, Southwestern pueblo cultures, and Plains bison hunters. Chronology, sites, settlement and subsistence patterns, and recent research issues may be considered.
- 3273 Ancient Civilizations of Mesoamerica**  
(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2043 recommended.  
Examination of the development of the ancient civilizations of Guatemala, Mexico, and Central America: Olmec, Teotihuacan, Maya, Toltec, Aztec, and Zapotec, among others.
- 3293 Research Methods in Anthropology**  
(3-0) 3 hours credit. Prerequisites: ANT 1013, and completion of Core Curriculum requirement in mathematics; ANT 2043 or ANT 2053 recommended.  
Quantitative analysis and computer applications as used in anthropological research.
- 3323 Native American Art**  
(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2053 recommended.  
A survey of the traditional arts of Native Americans north of the Rio Grande, focusing on case studies from the Arctic, the Northwest Coast, the Great Plains, the Southwest, and the Northeast. Arts of the sacred and the secular, the domestic and the political, and the ceremonial and the commercial are examined from precontact to the present day.
- 3333 Physical Anthropology of Human Populations**  
(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2033 recommended.  
Examines the biological variability of living populations; includes genetics, anatomy, demography, and change within a physical anthropology framework.
- 3353 Anthropology of American Culture**  
(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2053 recommended.  
Presents anthropological approaches to the modern and postmodern United States. Case studies in social structure, language, and ideology are examined. Attention is given to the extent and limits of cultural variation and to cultures both in and outside the mainstream.
- 3363 Indians of Mesoamerica**  
(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2053 recommended.  
A survey of the development, content, and variety of Mesoamerican Indian cultures from before the Spanish conquest to the present. Emphasis is placed on the cultural responses of the Indian peoples to the pressures of the Spanish and National regimes.

**3383 Folklore and Folklife**

(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2053 recommended.

Examines vernacular arts, crafts, and customs and their function in the maintenance of group identity. National, regional, ethnic, and occupational traditions are investigated. Attention is given to texts such as legends, myths, and ballads, as well as folk performance, clothing, architecture, and foodways.

**3403,6 Field Course in Archaeology**

3 or 6 hours credit. Prerequisites: Upper-division standing, consent of instructor, and at least one previous anthropology or archaeology course.

Offers the opportunity to gain intensive training in archaeological field methods: excavation, site survey, mapping, sampling, and interpretation. Additional fees are required. May be repeated for credit with advisor's permission, but not more than 6 semester credit hours may be applied to a major in anthropology.

**3413 The Fieldwork Experience**

(3-0) 3 hours credit. Prerequisite: ANT 2053, or consent of instructor.

Drawing upon the field experiences of major figures in anthropology, the course explores the scientific and humanistic aspects of research in cultural anthropology. Ethnographic methods and techniques are discussed, with emphasis on participant observation and ethical considerations.

**3503 Human Origins**

(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2033 recommended.

The fossil record of human emergence and comparative studies of human evolution. Evolution of social organization, technology, and language development to the end of the Ice Age.

**3513 The Human Skeleton**

(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2033 recommended.

Students are given the opportunity to develop skills in the study and analysis of human osteological remains. Applications of skeletal analysis in a variety of fields are considered, including physical anthropology and archaeological demography.

**3523 Medical Anthropology**

(3-0) 3 hours credit. Prerequisite: ANT 1013, ANT 2033, or ANT 2053 recommended.

This course approaches the study of health and disease patterns in human populations through the combined perspectives of culture, biology, and ecology.

**3603 Sex, Gender, and Culture**

(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2033 recommended.

Examination of the biological and cultural sources of differences between men and women.

**3633 Contemporary Mexican Cultures**

(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2053 recommended.

Contemporary issues facing Mexico's diverse peoples. Emphasis is placed on ethnicity, gender, and class in a globalizing economy. Case studies examine Mexico's "Indian problem," the peasantry, urban squatter settlements, women in maquiladoras, and the contested United States-Mexico border.

**3663 Hunters and Gatherers**

(3-0) 3 hours credit. Prerequisite: ANT 1013, ANT 2043, or ANT 2053 recommended.

The study of lifeways of hunting and gathering peoples around the world. Emphasis is placed on archaeological approaches to past hunting and gathering societies. Cross-cultural analyses utilizing ethnographic and archaeological data within an ecological context are emphasized.

**3673 Ancient Civilizations of the Near East, Egypt, and Europe**

(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2043 recommended.

Development of agriculture and village life; beginnings of civilization in the Near East and Mediterranean as compared with Mesoamerica, India, and China; rise of civilization in the Nile Valley.

- 3683 Archaeology of the Biblical Lands**  
(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2043 recommended.  
Survey of the prehistoric and early historic periods of the geographic area mentioned in biblical and related texts. Time periods covered are approximately 7,000 B.C. to A.D. 100, or from the Aceramic Neolithic to the Late Iron Age, with emphasis on the later periods. Cultural evolution and culture history, as well as the historicity of textual materials, will be treated.
- 3713 Material Culture Systems**  
(3-0) 3 hours credit. Prerequisites: ANT 2043 required and ANT 2053 recommended.  
This course surveys the role of material culture in human social systems of the past and present. Archaeological, historical, and ethnographic case studies are used to illustrate how the material world is variously woven into the fabric of culture.
- 3723 Ancient Complex Society**  
(3-0) 3 hours credit. Prerequisites: ANT 2043 required and ANT 3273 or ANT 3673 recommended.  
Cross-cultural exploration of social, economic, and political institutions found in ancient complex societies. Archaeological evidence is used to examine sources of variation in the development and organization of complexity. Comparisons are drawn from the ancient civilizations of South America, Mesoamerica, Africa, and Asia.
- 3733 Political and Legal Anthropology**  
(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2053 recommended.  
Comparative political and legal systems; forms of authority, legitimacy, and power. Major trends in anthropological thought are explored with emphasis on the political uses of myth, symbol, and ritual. Law and judicial processes are examined in Western and non-Western societies.
- 3813 Business, Culture, and Society**  
(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2053 recommended.  
This course examines how anthropological concepts and methods are used to understand and improve work conditions, corporate culture, and marketing; and how businesses can be better integrated into global markets by understanding the cultures of international business partners.
- 3823 Applied Anthropology**  
(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2053 recommended.  
Applied cultural anthropology directly addresses the needs and problems of communities and organizations throughout the world. Topics include the history of applied anthropology; a conceptual framework for understanding the different styles of applied research; methods of applied anthropology; domains of applied anthropology: international development, medicine, education, business, criminal justice, and the environment; career options and becoming a professional.
- 3833 Indians of Texas**  
(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2053 recommended.  
Ethnological survey of the Indian populations of Texas from the early historic period to the present. (Formerly ANT 4133. Credit cannot be earned for both ANT 3833 and ANT 4133.)
- 3843 Introduction to Primate Diversity**  
(3-0) 3 hours credit.  
This course offers a broad survey of the social behavior and ecology of the living primates. It begins with a survey of primate taxonomy, drawing distinctions among prosimians, monkeys, and apes. The course concludes with consideration of what the study of non-human primates can tell us about human evolution.
- 3853 Modern Ape Behavior and Ecology**  
(3-0) 3 hours credit.  
Modern apes show considerable diversity in their behavioral and morphological adaptations. This course focuses on the major theoretical approaches to understanding the biological variation within this primate group. The question of whether great apes exhibit culture is also discussed.

**3863 The Evolution of Human Nature**

(3-0) 3 hours credit.

A central concept in the evolution of human behavior is the idea that our brains, like our bodies, have been shaped by natural selection. The extent to which this factor influences the diverse behavior of modern humans is a topic of considerable debate. This course takes a critical look at different attempts to explain human behavior based on adaptive design.

**3873 Food, Culture, and Society**

(3-0) 3 hours credit.

This course explores the relationship between food and culture in diverse societies throughout the world. By examining food, food practices, and the meanings associated with food we can better understand how people live, how they define themselves in terms of ethnicity, gender, or class, and how they think of themselves relative to nature. Topics include the variation of food habits and meanings across cultures, food and gender roles, eating disorders in Western societies, and the global food system and world hunger.

**3903 Introduction to Linguistics**

(3-0) 3 hours credit.

Basic principles of analysis and description of the structure of language, including sound system, word order, and meaning. Also overview of selected subfields of linguistics, such as historical linguistics, sociolinguistics, language acquisition, and bilingualism. (Same as LNG 3813 and ENG 3343. Credit cannot be earned for more than one of these courses.)

**4113 Archaeology of Texas**

(3-0) 3 hours credit. Prerequisite: ANT 2043, ANT 3263, or ANT 3663 recommended.

Detailed review of prehistoric and historic aboriginal cultures of Texas and adjacent areas; current trends in Texas archaeology; examination of artifacts; and field trips to local prehistoric sites.

**4123 Archaeology of the American Southwest**

(3-0) 3 hours credit. Prerequisite: ANT 2043 or ANT 3263 recommended.

Consideration of the prehistoric cultures in the American Southwest and northern Mexico from the earliest occupations to European contact. Paleo-Indian, Archaic, Mogollon, Anasazi, and Hohokam occupations are reviewed with a consideration of recent research directions and theory.

**4243 Ethnographic Film**

(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2053 recommended.

Critique of major ethnographic films, concentrating on field methodology, production values, and the issue of representation.

**4263 Social and Cultural Change**

(3-0) 3 hours credit. Prerequisite: ANT 1013 or ANT 2053 recommended.

Anthropological perspectives on the nature, causes, and consequences of social and cultural change, with an emphasis on how local cultures are shaped by and resist the process of globalization.

**4403 Laboratory Analysis in Anthropology**

(0-6) 3 hours credit. Prerequisites: ANT 3403 or ANT 3406, and completion of the Core Curriculum requirement in science.

Supervised analysis of field data; methods of analysis; research techniques; and preparation of reports. May be repeated for an additional 3 semester credit hours with consent of instructor.

**4911-3 Independent Study**

1 to 3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Department Chair, and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4933,6 Internship in Anthropology**

3 or 6 hours credit. Prerequisite: Consent of internship coordinator.

Supervised experience relevant to anthropology within selected community organizations. A maximum of 6 semester credit hours may be earned through Internship in Anthropology. Must be taken on a credit/no credit basis.

**4953 Special Studies in Anthropology**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when the topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4983 Anthropology Honors Research**

3 hours credit. Prerequisite: Enrollment limited to candidates for Departmental Honors during their last two semesters; approval of the Department faculty.

Supervised individual research and preparation of a major paper in support of Departmental Honors. May be repeated once with advisor's approval.

**4993 Honors Thesis**

3 hours credit. Prerequisite: Enrollment limited to candidates for University Honors in Anthropology during their last two semesters; and consent of the Honors College.

Supervised research and preparation of an honors thesis. May be repeated once with advisor's approval.

## DEPARTMENT OF ART AND ART HISTORY

The Department of Art and Art History offers a Bachelor of Arts in Art History and Criticism, a Bachelor of Arts in Art, and a Bachelor of Fine Arts in Art, as well as a Minor in Art History and Criticism. UTSA is an accredited institutional member of the National Association of Schools of Art and Design.

### Bachelor of Arts Degree in Art

The Bachelor of Arts (B.A.) degree in Art is awarded upon the completion of 120 hours, including the Core Curriculum requirements. Thirty-nine of the total semester credit hours required for the degree must be at the upper-division level.

The B.A. degree in Art recognizes the successful completion of a program of study which includes foundation study and some specialization in studio art practices and a broad foundation in art history. The curriculum aims primarily toward breadth of experience in the context of a liberal arts education rather than professional specialization.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Art must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

<b>Domain III: Literature and the Arts</b>	<p><b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>The Arts</b> (3 semester credit hours) Any three hours from the courses listed here will satisfy the core requirement. AHC 1113 Survey of Art and Architecture from Prehistoric Times to 1350 AHC 1123 Survey of Art and Architecture in Europe and the New World from 1350 to 1750 AHC 1133 Survey of Modern Art</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Major Requirements

A. 21 semester credit hours of required lower-division art and art history and criticism foundation courses:

AHC	1113	Survey of Art and Architecture from Prehistoric Times to 1350
AHC	1123	Survey of Art and Architecture in Europe and the New World from 1350 to 1750
AHC	1133	Survey of Modern Art
ART	1003	Design: Two-Dimensional
ART	1013	Design: Three-Dimensional
ART	1213	Drawing I
ART	1223	Drawing II

B. 9 semester credit hours chosen from the following:

ART	2113	Painting: Basic
ART	2313	Digital Imaging: Basic
ART	2413	Printmaking: Basic
ART	2513	Photography: Basic
ART	2613	Sculpture: Basic
ART	2713	Ceramics: Basic

C. 12 additional semester credit hours of upper-division art course electives.

D. 6 semester credit hours of upper-division art history and criticism course electives.

E. 33 semester credit hours of free electives, including as many semesters of a modern language or Latin as are necessary for the completion of the second semester course of that language.

21 semester credit hours must be at the upper-division level in order to satisfy the minimum requirement of 39 hours of upper-division credit for the bachelor's degree.

### Bachelor of Fine Arts Degree in Art

The Bachelor of Fine Arts (B.F.A.) degree program in Art is awarded in recognition of successful completion of prolonged and intensive studio coursework with supportive studies in art history and criticism. The final two years of study include a specialized area of study in one of the following: ceramics, drawing, painting, photography, printmaking, or sculpture. The University is an accredited institutional member of the National Association of Schools of Art and Design.

Transfer students who wish to receive credit for upper-division art courses taken at another institution should present a portfolio of work to the department before the registration period. This portfolio should consist of 10 original examples or 2" x 2" slides of work from upper-division studio courses taken at other institutions.

Most students will fulfill the requirements for this degree with 126 to 129 semester credit hours, including 42 hours of Core Curriculum requirements. Three of the Core Curriculum requirements may also count as part of the 87 required semester credit hours in the art major. Due to the large number of major courses in the B.F.A. degree, full-time art students should enroll in two studio art courses, one art history and criticism course, and one or two Core Curriculum courses each semester. Art majors should request an appointment with the advisor of record for art programs before all enrollment periods. In order to complete all B.F.A. degree requirements in a timely fashion, both full-time and part-time art students should register every term for twice as many credits in their major course requirements as in Core Curriculum courses. Students seeking teacher certification should consult the College of Education and Human Development Advising and Certification Center.

All candidates for the degree must complete 69 semester credit hours of art (ART) and 18 semester credit hours of art history and criticism (AHC).

**Core Curriculum requirements:** Students seeking the Bachelor of Fine Arts degree in Art must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours from the courses listed here will satisfy the core requirement. AHC 1113 Survey of Art and Architecture from Prehistoric Times to 1350 AHC 1123 Survey of Art and Architecture in Europe and the New World from 1350 to 1750 AHC 1133 Survey of Modern Art

<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
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### Major Requirements

- A. 36 semester credit hours of specifically required lower-division studio art and art history foundation courses completed as part of the first 60 hours of the curriculum:

ART	1003	Design: Two Dimensional
ART	1013	Design: Three Dimensional
AHC	1113	Survey of Art and Architecture from Prehistoric Times to 1350
AHC	1123	Survey of Art and Architecture in Europe and the New World from 1350 to 1750
AHC	1133	Survey of Modern Art
ART	1213	Drawing I
ART	1223	Drawing II
ART	2113	Painting: Basic
ART	2413	Printmaking: Basic
ART	2513	Photography: Basic
ART	2613	Sculpture: Basic
ART	2713	Ceramics: Basic

- B. 21 semester credit hours of upper-division art courses:

ART	3033	Contemporary Studio: Concepts and Practice
ART	4983	Senior Seminar and Exhibition

15 semester credit hours in one of the following specialized areas of study: ceramics, drawing, painting, photography, printmaking, or sculpture

- C. 9 additional semester credit hours of art history and criticism courses:

AHC	4113	Contemporary Art
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6 elective hours of art history and criticism courses

Students may substitute a specific course in the philosophy of art or a humanities course with a strong art history component for an upper-division art history course with consent of the undergraduate advisor for art programs.

- D. 21 additional semester credit hours of art course electives are required, at least 9 hours of which must be upper-division.

## COURSE DESCRIPTIONS

### ART (ART)

NOTE: Due to the instructional format of studio/laboratory classes, auditors will not be approved for art courses.

#### 1003 Design: Two Dimensional

(0-6) 3 hours credit.

Exploration of the visual structure and organization of two-dimensional surfaces using a variety of media, with an emphasis on the development of creative and critical skills. [TCCN: ARTS 1311.]

- 1013 Design: Three Dimensional**  
(0-6) 3 hours credit.  
Exploration of the visual structure and organization of multidimensional forms in a variety of materials, with an emphasis on the development of creative and critical skills. [TCCN: ARTS 1312.]
- 1143 Art for Non-Art Majors**  
(0-6) 3 hours credit.  
An introduction to the fundamental principles, materials, and methods of visual art. Individual course sections will be devoted to the study of a specific art discipline such as drawing, painting, photography, or printmaking. May not be applied to a major in art. May be repeated for credit when topics vary. (Credit cannot be earned for Art 1153, Art 1163, or Art 1173 and sections of Art 1143 on the same topic.) [TCCN: ARTS 1325.]
- 1213 Drawing I**  
(0-6) 3 hours credit.  
Introduction to fundamental principles, materials, and techniques using a variety of drawing media. Emphasizes drawing from observation as a means to develop perceptual and technical skills as well as visual imagination. Includes perspective and other systems of spatial organization. [TCCN: ARTS 1316.]
- 1223 Drawing II**  
(0-6) 3 hours credit. Prerequisite: ART 1213.  
Continued experience with fundamental principles, materials, and techniques. Various approaches in a variety of media provide opportunities for further development of perceptual skills and visual imagination. [TCCN: ARTS 1317.]
- 2113 Painting: Basic**  
(0-6) 3 hours credit. Prerequisites: ART 1003 and ART 1223.  
Instruction in basic painting concepts, skills, and materials with an emphasis on the use of oil paint and oil mediums. [TCCN: ARTS 2316.]
- 2313 Digital Imaging: Basic**  
(0-6) 3 hours credit.  
Introduction to the fundamentals of 2D image creation and manipulation using software as a tool for art making in a variety of media, including printmaking, photography, video and multimedia computer display programs. Previous computer experience helpful but not required.
- 2413 Printmaking: Basic**  
(0-6) 3 hours credit. Prerequisites: ART 1003 and ART 1223.  
Introduction to printmaking processes, concepts, and materials. [TCCN: ARTS 2333.]
- 2513 Photography: Basic**  
(0-6) 3 hours credit. Prerequisite: ART 1003.  
Introduction to photographic image making, technical principles, and laboratory procedures. Students are expected to provide their own adjustable 35mm cameras. [TCCN: ARTS 2356.]
- 2613 Sculpture: Basic**  
(0-6) 3 hours credit. Prerequisites: ART 1003 and ART 1013.  
Instruction in basic sculptural concepts and materials. [TCCN: ARTS 2326.]
- 2713 Ceramics: Basic**  
(0-6) 3 hours credit. Prerequisites: ART 1003 and ART 1013.  
Instruction in basic ceramic concepts and techniques. [TCCN: ARTS 2346.]
- 3033 Contemporary Studio: Concepts and Practice**  
(0-6) 3 hours credit. Prerequisites: Satisfactory completion of 9 semester credit hours of any three 2000-level art courses, and 6 semester credit hours of AHC courses. Interdisciplinary studio projects generated from lectures, readings and discussion, focusing on critical and cultural issues from the 1970s to the present. Projects are intended to encourage collaborative efforts and nontraditional solutions. Required of all B.F.A. degree candidates.

- 3113 Painting II**  
(0-6) 3 hours credit. Prerequisite: ART 2113.  
Continued study of the methods and materials of painting connecting color, form, and composition to image and idea development. This course emphasizes the use of oil paint and oil mediums. Transfer students who have not had experience with oil paint must enroll in this course before proceeding to Painting III. May be repeated for credit.
- 3133 Painting III**  
(0-6) 3 hours credit. Prerequisite: ART 3113 or consent of instructor.  
Structured advanced painting projects that present a variety of approaches to painting with an aim to furthering both competence and an individual viewpoint in relation to historical and contemporary issues. Although a variety of media may be used at the instructor's discretion, all students must have had previous experience using oil paint. Transfer students who have not had experience with oil paint must enroll in ART 3113. May be repeated for credit.
- 3143 Methods and Materials in Painting**  
(0-6) 3 hours credit. Prerequisite: ART 3113 or consent of instructor.  
Topics that focus on a variety of materials and processes related to painting concerns. Additional emphasis will be placed on the student's individual creative development. May be repeated for credit.
- 3223 Drawing: Figure**  
(0-6) 3 credit hours. Prerequisite: ART 1223.  
Study of the human figure and its historical and contemporary implications for the artist, including anatomical and structural dynamics, gesture, narrative, and issues concerning the body as subject. May be repeated for credit.
- 4033 Studio Art Problems**  
(0-6) 3 hours credit. Prerequisite: Satisfactory completion of any two 2000-level art courses.  
An advanced exploration of visual art ideas and practices using various media, materials, and processes. Occasionally may be devoted to a specific topic of study. May be repeated for credit when topics vary.
- 4133 Painting IV**  
(0-6) 3 hours credit. Prerequisites: ART 3113, ART 3133, and consent of instructor.  
Concentration on the development of a personal direction with consideration of historical and contemporary issues in painting. Occasionally this course may focus on a special topic such as the figure or abstraction, and may include hybrid forms and experimental approaches. May be repeated for credit.
- 4233 Drawing: Advanced**  
(0-6) 3 hours credit. Prerequisite: ART 3223.  
Advanced projects with an emphasis on conceptual developmental and personal directions in relation to pertinent issues in art. Explores a range of media, materials, and forms, including both conventional and experimental approaches to drawing. May be repeated for credit.
- 4333 Digital Imaging: Advanced**  
(0-6) 3 hours credit. Prerequisite: ART 2313.  
Fundamentals of three-dimensional modeling and basic animation and its integration with advanced concepts in two-dimensional image manipulation programs and multimedia displays. Students will be encouraged to use computer tools experimentally to create art which amplifies and extends image making beyond traditional techniques. May be repeated for credit.
- 4433 Printmaking**  
(0-6) 3 hours credit. Prerequisite: ART 2413.  
An emphasis on the development of a personal vision and individual approach to the use of the medium, including experimentation in multiple processes. May be repeated for credit.
- 4533 Photography**  
(0-6) 3 hours credit. Prerequisite: ART 2513.  
An emphasis on the development of a personal vision and individual approach to the use of the medium. May be repeated for credit.

**4673 Sculpture**

(0-6) 3 hours credit. Prerequisite: ART 2613.

An emphasis on the development of a personal vision and individual approach to the use of the medium. May be repeated for credit.

**4753 Ceramics**

(0-6) 3 hours credit. Prerequisite: ART 2713.

An emphasis on the development of a personal vision and individual approach to the use of the medium. May be repeated for credit.

**4833 Practicum in the Visual Arts**

3 hours credit. Prerequisite: Permission in writing (departmental form available).

Students will participate in projects on an individual basis. The practical application of art methods and principles in such projects as providing special art programs or exhibition assistance to organizations and providing technical studio assistance for artists. Students must confer with instructor during the semester prior to enrolling in order to formulate the content of the practicum. May be repeated for credit.

**4913 Independent Study**

3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, the Department Chair, and the Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4953 Special Studies in Art**

(0-6) 3 hours credit. Prerequisite: Consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4983 Senior Seminar and Exhibition**

(0-6) 3 hours credit. Prerequisites: ART 3033, and must have completed application for graduation.

This course prepares the student in the professional concerns of aesthetics, art practices, and exhibition. The student will prepare work for a group exhibition in consultation with both the class instructor and a faculty advisor from his or her studio area of specialization.

## **Bachelor of Arts Degree in Art History and Criticism**

The Bachelor of Arts degree in Art History and Criticism is awarded upon the completion of 120 hours, including the Core Curriculum requirements. Thirty-nine of the total semester credit hours required for the degree must be at the upper-division level.

The B.A. in Art History and Criticism program offers art historical studies in the context of a liberal arts education. This degree program emphasizes critical thinking, research and writing skills in order to prepare students for careers in fields requiring a liberal arts background, or pursuing graduate studies in art history at UTSA, or another institution.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Art History and Criticism must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours from the courses listed here will satisfy the core requirement. AHC 1113 Survey of Art and Architecture from Prehistoric Times to 1350 AHC 1123 Survey of Art and Architecture in Europe and the New World from 1350 to 1750 AHC 1133 Survey of Modern Art
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

### Major Requirements

A. 9 semester credit hours in lower-division art history and criticism foundation courses:

- AHC 1113 Survey of Art and Architecture from Prehistoric Times to 1350
- AHC 1123 Survey of Art and Architecture in Europe and the New World from 1350 to 1750
- AHC 1133 Survey of Modern Art

B. 18 semester credit hours in upper-division art history and criticism courses selected from the following:

- AHC 3123 Northern European Art: Fifteenth and Sixteenth Centuries
- AHC 3423 Pre-Columbian Art and Architecture of Mesoamerica
- AHC 4113 Contemporary Art
- AHC 4333 Topics in Art History and Criticism  
(may be repeated for credit when topics vary)
- AHC 4933 Art Gallery and Museum Internship

## C. 9 semester credit hours in lower-division art courses:

ART	1003	Design: Two Dimensional
ART	1013	Design: Three Dimensional
ART	1213	Drawing I

## D. 9 additional semester credit hours in support work to include classical studies (CLA), communication (COM), English (ENG), history (HIS), humanities (HUM), philosophy (PHI), or other subjects as individually justified by the student and approved by the Undergraduate Advisor.

## E. 36 semester credit hours of electives, including as many semesters of a single language other than English as are necessary for the completion of the fourth semester course of that language.

**Minor in Art History and Criticism**

The discipline of the history of art addresses cultural, historical, and critical issues through the visual arts. A Minor in Art History and Criticism provides students with a general overview of the discipline.

All students pursuing the Minor in Art History and Criticism must complete 18 semester credit hours.

## A. 6 semester credit hours selected from the following:

AHC	1113	Survey of Art and Architecture from Prehistoric Times to 1350
AHC	1123	Survey of Art and Architecture in Europe and the New World from 1350 to 1750
AHC	1133	Survey of Modern Art

## B. 12 semester credit hours selected from the following:

AHC	3123	Northern European Art: Fifteenth and Sixteenth Centuries
AHC	3423	Pre-Columbian Art and Architecture of Mesoamerica
AHC	4113	Contemporary Art
AHC	4333	Topics in Art History and Criticism (repeatable for credit)
AHC	4933	Art Gallery and Museum Internship

**COURSE DESCRIPTIONS**  
**ART HISTORY AND CRITICISM**  
**(AHC)**

**1033 Masterworks in Art**

(3-0) 3 hours credit.

A study of key works in art and architecture of Europe (1425-1825), ancient Mexico and Guatemala (before 1521), and modern Mexico (1920-1940). May not be applied to a major in art or art history. [TCCN: ARTS 1301.]

**1113 Survey of Art and Architecture from Prehistoric Times to 1350**

(3-0) 3 hours credit.

A study of art and architecture as it developed from Paleolithic times to 1350 in the various civilizations of Europe, the Near East, and the New World. Course will include selected readings from related fields. [TCCN: ARTS 1303.]

**1123 Survey of Art and Architecture in Europe and the New World from 1350 to 1750**

(3-0) 3 hours credit.

A study of art and architecture as it developed from the Renaissance in Europe and the period of the Aztecs and Incas in the New World to 1750. Course will include selected readings from related fields.

- 1133 Survey of Modern Art**  
(3-0) 3 hours credit.  
A study of modern art from the French Revolution to the present, with special emphasis on contemporary developments. Course will include selected readings from related fields.
- 3123 Northern European Art: Fifteenth and Sixteenth Centuries**  
(3-0) 3 hours credit. Prerequisite: 3 semester credit hours of lower-division art history  
A study of the 15th and 16th century art of Northern Europe. Emphasis is placed on the development of the arts in Flanders and Germany.
- 3423 Pre-Columbian Art and Architecture of Mesoamerica**  
(3-0) 3 hours credit. Prerequisite: 3 semester credit hours of lower-division art history.  
A study of art and architecture in ancient Guatemala, Mexico, Belize, and Honduras.
- 4113 Contemporary Art**  
(3-0) 3 hours credit. Prerequisite: 3 semester credit hours of lower-division art history.  
Contemporary developments in the visual arts of the United States and Europe from 1960 to the present.
- 4333 Topics in Art History and Criticism**  
(3-0) 3 hours credit. Prerequisite: 3 semester credit hours of lower-division art history.  
Focus on a specific period, medium, or theoretical and critical issue within the history and criticism of art. May be repeated for credit when topics vary.
- 4933 Art Gallery and Museum Internship**  
3 hours credit. Prerequisite: Permission in writing (departmental form available).  
Supervised experience related to preparation and installation of exhibitions in gallery and museum settings. Students must confer with instructor during the semester prior to enrolling in order to formulate the content of the internship. May repeat once for credit.

## DEPARTMENT OF COMMUNICATION

The Department of Communication offers a Bachelor of Arts degree and a minor in Communication. Honors may also be earned in Communication. If a student majors in Communication, he or she has the option of concentrating his or her coursework in one of the following areas: Speech Communication, Technical Communication, Electronic Media, or Public Relations. Students interested in preparing for careers in the news media should concentrate in Technical Communication and use their Communication and free electives to complete a recommended curriculum available from the advisor.

### DEPARTMENT HONORS

Students whose grade point average in the communication major (including support work) before the beginning of their final year at UTSA is 3.25 or above, and whose overall grade point average is 3.0, may earn Honors in Communication. In order to do so, a student must complete a substantial paper or project approved by the Department Honors Committee, and maintain a 3.25 grade point average in both the major and support work. The grade point average requirements apply to all transfer work and courses at UTSA. In the event that a student does not meet the minimum grade point average requirements, the student may appeal to the Department Honors Committee for special consideration. Appropriate forms and letter(s) of recommendation from UTSA faculty are necessary for such consideration.

### Bachelor of Arts Degree in Communication

The Bachelor of Arts degree in Communication offers four areas of concentration: speech communication, technical communication, electronic media, and public relations. The minimum number of semester credit hours required for this degree is 120, including Core Curriculum requirement hours. Thirty-nine of the 120 total semester credit hours required for the degree must be at the upper-division level.

All common Communication degree requirements (COM 2733, COM 3023, COM 3073, COM 3083, COM 3553 or COM 3563, ENG 2413) must be completed with a grade of “C” or better. Students who declare a concentration in Public Relations must complete each course required for the Public Relations concentration (COM 3513, COM 3523, COM 3893, COM 4523, COM 4533) with a grade of “C” or better.

### Speech Communication Concentration

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Communication with a Speech Communication Concentration must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<i>Mathematics</i> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <i>Science</i> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Economics</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. Note: If a language is used to satisfy this three-hour requirement, students will need to take an additional three hours in the same language for the degree requirement.</p>

### Degree Requirements

#### A. 30 semester credit hours of required coursework:

##### 1. Common Communication degree requirements

ENG	2413	Technical Writing
COM	2733	Introduction to Communication Technologies
COM	3023	Foundations of Communication
COM	3073	Conduct of Communication Inquiry
COM	3083	Language and Communication Theory
COM	3553	Intercultural Communication
		or
COM	3563	International Communication

##### 2. Other required courses:

COM	2113	Public Speaking
COM	3243	Persuasion
COM	3253	Rhetorical Communication Analysis
COM	3383	Interpersonal Communication

#### B. 9 additional semester credit hours in Communication at the upper-division level

#### C. 6 semester credit hours in a single language other than English

D. 15 semester credit hours of approved support work in one of the following areas, 12 semester credit hours of which must be at the upper-division level:

- intercultural/international studies
- English language and composition, philosophy, and visual arts
- social and behavioral sciences
- business, management, marketing, and information systems
- other subjects as may be individually justified by the student and approved by the undergraduate advisor.

E. 18 semester credit hours of free electives

### Technical Communication Concentration

Students interested in preparing for careers in the news media should use their Communication and free electives to complete a recommended curriculum available from the advisor. All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Communication with a Technical Communication Concentration must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) ECO 2023 Introductory Microeconomics
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. Note: If a language is used to satisfy this three-hour requirement, students will need to take an additional three hours in the same language for the degree requirement.
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### Degree Requirements

A. 30 semester credit hours of required coursework:

1. Common Communication degree requirements:

COM	2733	Introduction to Communication Technologies
COM	3023	Foundations of Communication
COM	3073	Conduct of Communication Inquiry
COM	3083	Language and Communication Theory

COM	3553	Intercultural Communication
		or
COM	3563	International Communication

ENG	2413	Technical Writing
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2. Other required courses:

COM	2433	Editing
COM	3413	Writing for New Media
COM	3623	Commercial Publications
COM	3633	Professional Presentation

B. 9 additional semester credit hours in Communication at the upper-division level

C. 6 semester credit hours in a single foreign language

D. 15 semester credit hours of support work:

1.	ACC	2013	Principles of Accounting I
	ECO	2023	Introductory Microeconomics
	FIN	3003	Survey of Finance

2. 6 semester credit hours of approved support work in one of the following areas, at the upper-division level:

- intercultural/international studies
- English language and composition, philosophy, and visual arts
- social and behavioral sciences
- business, management, marketing, and information systems
- other subjects as may be individually justified by the student and approved by the undergraduate advisor.

E. 18 semester credit hours of free electives, 3 semester credit hours of which must be at the upper-division level.

## Electronic Media Concentration

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Communication with an Electronic Media Concentration must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) ECO 2023 Introductory Microeconomics
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. Note: If a language is used to satisfy this three-hour requirement, students will need to take an additional three hours in the same language for the degree requirement.

## Degree Requirements

### A. 30 semester credit hours of required coursework:

#### 1. Common Communication degree requirements:

COM	2733	Introduction to Communication Technologies
COM	3023	Foundations of Communication
COM	3073	Conduct of Communication Inquiry
COM	3083	Language and Communication Theory
COM	3553	Intercultural Communication
		or
COM	3563	International Communication
ENG	2413	Technical Writing

#### 2. Other required courses:

COM	3633	Professional Presentation
COM	3733	Fundamentals of Communications Media
COM	3893	Organizational Communication
COM	4733	Communications Design and Innovation

### B. 9 additional semester credit hours in Communication, at least 6 semester credit hours of which must be at the upper-division level

### C. 6 semester credit hours in a single foreign language

### D. 15 semester credit hours of support work:

- ACC 2013 Principles of Accounting I  
ECO 2023 Introductory Microeconomics  
FIN 3003 Survey of Finance

#### 2. 6 semester credit hours of approved support work in one of the following areas, at the upper-division level:

- intercultural/international studies
- English language and composition, philosophy, and visual arts
- social and behavioral sciences
- business, management, marketing, and information systems
- other subjects as may be individually justified by the student and approved by the undergraduate advisor

### E. 18 semester credit hours of free electives

## Public Relations Concentration

Students who declare a concentration in Public Relations must complete each course required for the Public Relations concentration (COM 3513, COM 3523, COM 3893, COM 4523, COM 4533) with a grade of “C” or better.

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Communication with a Public Relations Concentration must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

<b>Core Curriculum Requirements</b>	<b>Courses that Satisfy Core Curriculum and Degree Requirements</b>
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) ECO 2023 Introductory Microeconomics
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. Note: If a language is used to satisfy this three-hour requirement, students will need to take an additional three hours in the same language for the degree requirement.

### Degree Requirements

A. 33 semester credit hours of required coursework:

1. Common Communication degree requirements

COM 2733 Introduction to Communication Technologies  
COM 3023 Foundations of Communication

COM	3073	Conduct of Communication Inquiry
COM	3083	Language and Communication Theory
COM	3553	Intercultural Communication
		or
COM	3563	International Communication
ENG	2413	Technical Writing

2. Other required courses: Each of the following required courses must be completed with a grade of “C” or better.

COM	3513	Writing for Public Relations
COM	3523	Public Relations
COM	3893	Organizational Communication
COM	4523	Case Studies in Public Relations
COM	4533	Public Relations Planning and Campaigns

- B. 9 additional semester credit hours in Communication, at least 6 semester credit hours of which must be at the upper-division level
- C. 6 semester credit hours in a single foreign language
- D. 15 semester credit hours of support work:
- ACC 2013 Principles of Accounting I  
ECO 2023 Introductory Microeconomics  
FIN 3003 Survey of Finance
  - 6 semester credit hours of approved support work in one of the following areas, at the upper-division level:
    - intercultural/international studies
    - English language and composition, philosophy, and visual arts
    - social and behavioral sciences
    - business, management, marketing, and information systems
    - other subjects as may be individually justified by the student and approved by the undergraduate advisor.
- E. 15 semester credit hours of free electives

### **Minor in Communication**

All students pursuing the Minor in Communication must complete 21 semester credit hours.

- A. 12 semester credit hours of required courses:

COM	3023	Foundations of Communication
COM	3073	Conduct of Communication Inquiry
COM	3083	Language and Communication Theory
ENG	2413	Technical Writing

- B. One of the following options:

- General Communication Emphasis: 9 additional semester credit hours of communication, at least 6 semester credit hours of which must be upper-division.

2. Writing Emphasis: 9 semester credit hours additional hours selected from:

COM	2433	Editing
COM	3413	Writing for New Media
COM	3513	Writing for Public Relations
ENG	3413	Specialized Professional Writing

## COURSE DESCRIPTIONS COMMUNICATION (COM)

### **1001 Freshman Topics in Communication**

(1-1) 1 hour credit.

Required for entering freshmen in the College of Liberal and Fine Arts with less than 15 hours of coursework and who are interested in majoring in Communication. Critical study of topics in Communication. Innovative classroom and learning techniques are used to introduce students to these topics and to help strengthen critical thinking, problem solving, and writing skills. Enrichment activities may include film, television programs, Web resources, field trips, and guest lectures by other faculty. Content varies with each instructor. A maximum of 3 semester credit hours of freshman topics courses may apply to a bachelor's degree, although this specific topic may be taken only once.

### **1043 Introduction to Communication**

(3-0) 3 hours credit. Prerequisite: WRC 1013.

Introduction to the fundamental processes of human communication, with emphasis on interpersonal, group, and mass communication. Emphasis is given to those skills that promote oral proficiency. [TCCN: SPCH 1311.]

### **1053 Business and Professional Speech**

(3-0) 3 hours credit. Prerequisite: WRC 1013.

Examination of the basic communication process through oral channels with practical applications for business. Emphasis is on techniques of business and professional presentation, including components of message strategies, nonverbal communication, multimedia support, and persuasive speaking. Oral presentations with written components required. [TCCN SPCH 1321.]

### **2113 Public Speaking**

(3-0) 3 hours credit. Prerequisite: COM 1043 or COM 1053 or consent of instructor.

Theory and practice of speaking in formal settings. Emphasis on preparation, adaptation, and delivery of oral presentations. [TCCN: SPCH 1315.]

### **2123 Oral Interpretation**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

Study of verbal and nonverbal communication, especially for aesthetic purposes, and of the dramaturgical skills that relate to the performing arts. Emphasis is given to those skills that promote oral proficiency. [TCCN: SPCH 2341.]

### **2343 Introduction to Mass Communication**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

Critical examination of how the mass media interact with individuals and social groups. Exploration of media industries, products, and processes from various disciplinary perspectives. [TCCN: COMM 1307.]

### **2433 Editing**

(3-0) 3 hours credit. Prerequisite: ENG 2413.

Principles and applications of production editing and technical editing, including evaluation and revision of style, tone, and organization of documents. Practice in use of editing symbols and copy marking. (Same as ENG 2433. Credit cannot be earned for both COM 2433 and ENG 2433.)

- 2733 Introduction to Communication Technologies**  
(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum rhetoric requirement.  
Overview of media and networks used for entertainment and information distribution, storage, and retrieval. Emphasis on the interrelationships among technology, economics, policy, society, and culture.
- 2801 Forensic Activities**  
(1-0) 1 hour credit. Prerequisite: Consent of instructor.  
Opportunity to study the preparation and presentation of oral argument or speaking in competitive situations. May be repeated for credit. [TCCN: SPCH 2144.]
- 3023 Foundations of Communication**  
(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.  
Fundamental concepts in Speech Communication, Technical Communication, Electronic Media, and Public Relations. Addresses basic strategies and technologies used for information access, retrieval, and processing. Required of and restricted to students majoring or minoring in Communication. (Formerly COM 2213. Credit cannot be earned for both COM 3023 and COM 2213.)
- 3073 Conduct of Communication Inquiry**  
(3-0) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in COM 3023.  
Introduction to basic research methods as they apply to communication inquiry. Issues include applications of quantitative and qualitative research designs, descriptive and inferential statistics, and interpretation and critical evaluation of findings.
- 3083 Language and Communication Theory**  
(3-0) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in COM 3023.  
Overview of theories of language and communication. Focuses on understanding how language and communication affect individual and social action.
- 3113 Argumentation and Debate**  
(3-0) 3 hours credit. Prerequisite: COM 1043, COM 1053, or COM 3023.  
Offers the opportunity to train in the preparation, construction, and critical analysis of argumentation. Exercises in oral communication in adversarial situations.
- 3243 Persuasion**  
(3-0) 3 hours credit. Prerequisites: COM 3073 and COM 3083.  
Theory and practice of influencing attitudes, beliefs, opinions, and actions. Emphasis on critical evaluation of persuasive messages and design of persuasive campaigns.
- 3253 Rhetorical Communication Analysis**  
(3-0) 3 hours credit. Prerequisite: COM 2113 or consent of instructor.  
Study of classical and contemporary rhetorical theory. Critical evaluation of communication messages and techniques of delivery.
- 3343 Theories of Mass Communication**  
(3-0) 3 hours credit. Prerequisite: COM 2343.  
Overview of theories of mass communication. Includes exploration of the processes and effects of the media in public entertainment and information programming.
- 3383 Interpersonal Communication**  
(3-0) 3 hours credit. Prerequisite: COM 1043, COM 1053, or COM 3023.  
Theory and research of communication in personal and professional settings. The course stresses the social context of communication and emphasizes skills, knowledge, and motivation of verbal and nonverbal interaction. (Same as MGT 3253. Credit cannot be earned for both COM 3383 and MGT 3253.)

**3413 Writing for New Media**

(3-0) 3 hours credit. Prerequisite: ENG 2413.

Introduction to issues and practices in the design of online information. Emphasis on writing and design practices in the context of various online information genres, including writing for the World Wide Web. Other topics may include hypertext theory and interactive design.

**3513 Writing for Public Relations**

(3-0) 3 hours credit. Prerequisites: COM 3523 and ENG 2413.

Exposure to techniques and skills associated with writing for public relations to create internal and external documents, such as news releases, reports, newsletters, feature stories, and brochures. Designed to enable students to become competent and versatile writers for a variety of publics.

**3523 Public Relations**

(3-0) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in COM 3023.

Introduction to principles and practices of public relations, with emphasis on strategies and execution of campaigns. Some attention to public relations within multicultural communities.

**3543 Multicultural Public Communication Practices**

(3-0) 3 hours credit. Prerequisites: COM 3023 and COM 3553 or COM 3563.

Strategic planning and execution of public information campaigns targeting ethnic markets; emphasis on techniques of audience analysis, construction of messages, and use of specific communication channels.

**3553 Intercultural Communication**

(3-0) 3 hours credit. Prerequisite: COM 3083.

Examination of differences in communication that arise from cultural and/or ethnic diversity. Emphasis on the verbal and nonverbal communicative patterns, conflict management, and decision-making processes of diverse cultures.

**3563 International Communication**

(3-0) 3 hours credit. Prerequisite: COM 3083.

Examination of issues, conditions, and processes relating to world media systems. Consideration of theoretical and practical perspectives in key domains of interaction such as political economy, social development, and technology.

**3623 Commercial Publications**

(3-0) 3 hours credit. Prerequisite: ENG 2413.

Theory and practice of commercial writing and desktop publishing. Includes discussion of document design, principles of layout, and typography.

**3633 Professional Presentation**

(3-0) 3 hours credit. Prerequisite: COM 1043, or COM 1053, or COM 3023.

Fundamentals of professional presentations including information exchange, problem solving, and persuasive proposals. Emphasis on the integration of oral presentation with written, graphic, and other media materials.

**3663 Urban Reporting/Writing**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

News coverage of politics, law, education, social services, and government institutions as they relate to specific urban economics and social problems.

**3673 Multicultural Reporting/Writing**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

Critical examination of diversity and the media. Exposure to journalistic tools for the coverage of diverse ethnic, gender, ability, and ideological groups inside and outside the United States. Discussion of the critical role of diverse voices in a democracy.

- 3733 Fundamentals of Communications Media**  
(3-0) 3 hours credit. Prerequisites: COM 2733, COM 3023, and completion of or concurrent enrollment in COM 3073.  
Examination of basic technical concepts and their application to telecommunications technologies, including principles of analog and digital transmission, and integrated networks. Introduction to organizational processes of telecommunications development.
- 3883 Small Group Communication**  
(3-0) 3 hours credit. Prerequisites: COM 3073 and completion of or concurrent enrollment in COM 3383.  
Theory and research in the communication processes of small groups. Emphasis on analysis of transactions in social and task-oriented groups.
- 3893 Organizational Communication**  
(3-0) 3 hours credit. Prerequisite: COM 1043, or COM 1053, or COM 3023.  
Theory and research in organizational communication. Examination of the barriers to effective organizational communication; group communication and decision making; information flows through the formal and informal networks of organizations, and the means of evaluating organizational communication effectiveness. (Same as MGT 3123. Credit cannot be earned for both COM 3893 and MGT 3123.)
- 4383 Relational Communication**  
(3-0) 3 hours credit. Prerequisites: COM 3073 and COM 3383.  
Examination of the transactional processes involved in the creation, maintenance, and termination of personal relationships. Analysis of current research and theories concerning the role and effects of communicating in friendship, marriage, and family relationships.
- 4413 Topics in Speech Communication**  
(3-0) 3 hours credit. Prerequisite: COM 3083 or consent of instructor.  
Intensive study of one or more specific issues in Speech Communication (including contexts, theoretical perspectives, and research methods). May be repeated once for credit when topics vary.
- 4423 Topics in Technical Communication**  
(3-0) 3 hours credit. Prerequisite: COM 3083 or consent of instructor.  
Intensive study of one or more specific issues in Technical Communication (including contexts, theoretical perspectives, research methods, and production processes). May be repeated once for credit when topics vary.
- 4433 Topics in Electronic Media**  
(3-0) 3 hours credit. Prerequisite: COM 3083 or consent of instructor.  
Intensive study of one or more specific issues in Electronic Media (including contexts, theoretical perspectives, and individual technologies). May be repeated once for credit when topics vary.
- 4443 Topics in Public Relations**  
(3-0) 3 hours credit. Prerequisite: COM 3083 or consent of instructor.  
Intensive study of one or more specific issues in Public Relations (including media relations, special events planning, and use of technologies). May be repeated once for credit when topics vary.
- 4523 Case Studies in Public Relations**  
(3-0) 3 hours credit. Prerequisites: COM 3513, COM 3523, and completion of or concurrent enrollment in COM 3073.  
Advanced study of public relations functions, principles, and practices using local, regional, and national organizations as examples.
- 4533 Public Relations Planning and Campaigns**  
(3-0) 3 hours credit. Prerequisite: COM 4523.  
Application of public relations principles to the planning and production of messages and campaigns. Students will be expected to produce and carry out a public relations campaign within the community.

**4733 Communications Design and Innovation**

(3-0) 3 hours credit. Prerequisite: COM 3733.

Application and design of communications systems for professional organizations. Focus is on formal and informal communication involved in effective implementation and use of technology. Procedures for needs assessment, budgetary analysis, design, implementation, evaluation, and modification of communication technology.

**4911-3 Independent Study in Communication**

1 to 3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Department Chair, and the Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4933 Internship in Communication**

3 hours credit. Prerequisites: COM 3023, junior standing, and consent of instructor.

Supervised field experience in Communication. May be repeated once for credit, but only 3 semester credit hours may be counted toward major requirements.

**4973 Seminar for Communication Majors**

(3-0) 3 hours credit. Prerequisites: 12 upper-division semester credit hours in Communication and consent of instructor.

This undergraduate seminar, limited to Communication majors in their final year, offers the opportunity to study practical application of principles and practices of communication. Students are required to engage in critical thinking, strategic planning, and problem solving activities in implementing a creative program in a social or organizational setting. Content varies with each instructor. May be repeated once for credit when topics vary.

**4993 Honors Thesis**

3 hours credit. Prerequisite: Enrollment limited to candidates for graduation with University Honors.

Supervised research and preparation of an honors thesis. May be repeated once with advisor approval.

## DEPARTMENT OF ENGLISH, CLASSICS, AND PHILOSOPHY

The department offers Bachelor of Arts degrees and minors in English, Humanities, Philosophy, and Classical Studies. Honors can also be earned in English, Humanities, Philosophy, and Classical Studies.

### Honors in English

Students whose grade point average in the English major (including support work) before the beginning of their final year at UTSA is 3.25 or above, and whose overall grade point average is 3.0, may earn Honors in English. In order to do so, a student must complete a substantial paper approved by the Department Scholarship and Honors Committee and maintain a 3.25 grade point average in both the major and support work. The grade point average requirements apply to all transfer work and courses taken at UTSA.

### Bachelor of Arts Degree in English

The minimum number of semester credit hours required for this degree is 120, including the hours of Core Curriculum requirements. Thirty-nine of the 120 total semester credit hours required for the degree must be at the upper-division level. Students seeking teacher certification should consult the College of Education and Human Development Advising and Certification Center and for information.

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in English must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

<b>Domain III: Literature and the Arts</b>	<p><b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. However, English majors may fulfill the literature requirement by successfully completing ENG 2213.</p> <p><b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. Note: If a language is used to satisfy this three-hour requirement, students will need to take an additional three hours in the same language for the degree requirement.</p>

### Degree Requirements

A. 39 semester credit hours in English, 21 semester credit hours of which must be at the upper-division level:

- ENG 2213 Literary Criticism and Analysis
- ENG 2223 Major British Writers I
- ENG 2233 Major British Writers II
- ENG 2263 Major American Writers
  
- ENG 3223 Shakespeare: The Early Plays  
or
- ENG 3233 Shakespeare: The Later Plays
  
- ENG 4973 Seminar for English Majors

15 additional upper-division semester credit hours in English, at least 6 hours of which must be in literature; of these 6 hours, at least 3 hours must include the study of American literature. The required course ENG 2213 may be used to satisfy the Core Curriculum requirement in Domain IIIA.

6 semester credit hours in a single language other than English

B. 12 additional semester credit hours of approved support work in one of the following categories (at least 6 hours of which must be at the upper-division level), which may also be used to satisfy a Core Curriculum requirement:

1. Classical studies (CLA), philosophy (PHI), humanities (HUM)
2. Foreign languages, foreign literature (including foreign literatures in translation)
3. Linguistics (including linguistics courses designated ENG, provided that they have not been counted toward the required 33 semester credit hours in English)
4. Communication (COM)
5. Creative writing or expository and technical writing (including courses designated ENG, provided that they have not been counted toward the required 33 semester credit hours in English)
6. American studies (AMS), anthropology (ANT), history (HIS), psychology (PSY), or sociology (SOC)
7. History and theory of either art or music
8. Mexican American Studies
9. Women and Gender Studies
10. Other subjects as may be individually justified by the student, recommended by the academic advisor, and approved by the Department Chair.

Students who select a support category other than classics, philosophy, or humanities may apply 6 semester credit hours of upper-division literature courses in humanities or classics toward requirement A of the English major.

C. 27 semester credit hours of electives

## Bachelor of Arts degree in English with an Emphasis on Professional Writing

All candidates for the Bachelor of Arts degree in English with a Professional Writing emphasis must complete:

- A. 39 semester credit hours in English, 21 semester credit hours of which must be at the upper-division level:

ENG	2213	Literary Criticism and Analysis
ENG	2223	Major British Writers I
ENG	2233	Major British Writers II
ENG	2263	Major American Writers
ENG	3223	Shakespeare: The Early Plays or
ENG	3233	Shakespeare: The Later Plays
ENG	3313	Advanced Composition
ENG	3413	Specialized Professional Writing
ENG	4933	Internship
ENG	4973	Seminar for English Majors

6 additional upper-division semester credit hours in English literature; of these 6 hours at least 3 hours must include the study of American literature; the required course ENG 2213 may be used to satisfy the Core Curriculum requirement in Domain IIIA.

- B. 27 semester credit hours of electives
- C. 12 additional semester credit hours of approved support work in professional writing, including the following 9 semester credit hours:

ENG	2413	Technical Writing
ENG	2433	Editing
ENG	4433	Advanced Professional Writing

## Minor in English Literature

All students pursuing the Minor in English Literature must complete 21 semester credit hours of English and American literature.

- A. 15 semester credit hours of required courses:

ENG	2213	Literary Criticism and Analysis
ENG	2223	Major British Writers I
ENG	2233	Major British Writers II
ENG	2263	Major American Writers
ENG	3223	Shakespeare: The Early Plays or
ENG	3233	Shakespeare: The Later Plays

- B. 6 additional upper-division semester credit hours of literature in English, 3 semester credit hours of which must include the study of American literature.

**COURSE DESCRIPTIONS  
ENGLISH  
(ENG)**

- 2013 Introduction to Literature**  
(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.  
Introductory study of great works of literature with an emphasis on novels, plays, and poetry by British and American authors. Designed for nonmajors.
- 2213 Literary Criticism and Analysis**  
(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.  
A study of poetry, fiction, and drama, with close attention to literary terms, literary criticism, and the characteristics of each genre. This course includes intensive reading and extensive writing requirements and is designed to prepare students who intend to take advanced courses in literature and other students who have a commitment to the rigorous study of literature.
- 2223 Major British Writers I**  
(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in literature.  
Study of representative works of major British writers from Chaucer to Milton (excluding Shakespeare). Required of students majoring in English. [TCCN: ENGL 2322.]
- 2233 Major British Writers II**  
(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in literature.  
Study of representative works of major British writers from the Age of Pope to the early 20th century. Required of students majoring in English. [TCCN: ENGL 2323.]
- 2263 Major American Writers**  
(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in literature.  
Study of representative works of major American writers. Required of students majoring in English.
- 2323 Creative Writing: Fiction**  
(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in literature.  
Offers the opportunity for intensive practice and development of techniques in the writing of fiction.
- 2333 Creative Writing: Poetry**  
(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in literature.  
Offers the opportunity for intensive practice and development of techniques in the writing of poetry.
- 2343 Creative Writing: Nonfiction**  
(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in literature.  
Offers the opportunity for intensive practice and development of techniques in the writing of nonfiction genres such as memoir, autobiography, and informal essays.
- 2383 Multi-Ethnic Literatures of the United States**  
(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum requirement in literature.  
A survey of the literature of various minority groups such as Native American, African American, and Hispanic. Designed for nonmajors.
- 2413 Technical Writing**  
(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.  
Techniques of expository writing, particularly adapted to students in technological and scientific subjects. [TCCN: ENGL 2311.]
- 2423 Literature of Texas and the Southwest**  
(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum requirement in literature.  
Study of the literature of Texas and the Southwest, including an examination of the region's multicultural heritage. Designed for nonmajors.

- 2433 Editing**  
(3-0) 3 hours credit. Prerequisite: ENG 2413.  
Principles and applications of production editing and technical editing, including evaluation and revision of style, tone, and organization of documents. Practice in the use of editing symbols and copy marking. (Same as COM 2433. Credit cannot be earned for both ENG 2433 and COM 2433.)
- 3033 American Literature, 1945 to Present**  
(3-0) 3 hours credit. Prerequisite: ENG 2213.  
Critical study of major American writers of the past five decades.
- 3053 American Literature to 1870**  
(3-0) 3 hours credit. Prerequisite: ENG 2213.  
Study of major American writers before the late 19th century.
- 3063 American Literature, 1870-1945**  
(3-0) 3 hours credit. Prerequisite: ENG 2213.  
Study of major American writers of the late 19th and early 20th centuries.
- 3073 Young Adult Literature**  
(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in literature.  
Literary analysis of the kinds of reading available for adolescents: poetry, drama, biography, science fiction, mystery, and fantasy. Both classics and current trends will be considered. Emphasis on the novel. (Formerly ENG 2373. Credit cannot be earned for both ENG 3073 and ENG 2373.)
- 3113 Studies in Individual Authors**  
(3-0) 3 hours credit. Prerequisite: ENG 2213.  
Study of the works of an individual British or American author or of several authors examined in relation to one another. May be repeated for credit when authors vary.
- 3123 Modern Fiction**  
(3-0) 3 hours credit. Prerequisite: ENG 2213.  
Critical survey of American, British, and Continental fiction of the 20th century, studied intensively in relation to the development of characteristically modern techniques.
- 3133 Women and Literature**  
(3-0) 3 hours credit. Prerequisite: ENG 2213 or any 2200 course in English.  
Critical study of the presentation of women and feminist issues in various literary forms.
- 3143 Modern Drama**  
(3-0) 3 hours credit. Prerequisite: ENG 2213.  
Study of representative plays in the modern dramatic tradition, from the time of Ibsen and Strindberg through contemporary dramatists, with an emphasis on British and American playwrights.
- 3153 Topics in Drama**  
(3-0) 3 hours credit. Prerequisite: ENG 2213.  
Study of one or more periods (e.g., Tudor-Stuart, contemporary) or modes (e.g., comedy, tragedy) of drama. May be repeated for credit when topics vary.
- 3213 Chaucer**  
(3-0) 3 hours credit. Prerequisite: ENG 2223.  
Critical study of the *Canterbury Tales* and other poems. Texts in Middle English.
- 3223 Shakespeare: The Early Plays**  
(3-0) 3 hours credit. Prerequisite: ENG 2213.  
Critical study of comedies, histories, and tragedies from the earlier period (1590-1601).

- 3233 Shakespeare: The Later Plays**  
(3-0) 3 hours credit. Prerequisite: ENG 2213.  
Critical study of comedies, tragedies, and romances from the later period (1602-1613).
- 3243 The English Novel**  
(3-0) 3 hours credit. Prerequisite: ENG 2213.  
Critical survey of English novels, selected chiefly from the 18th and 19th centuries.
- 3253 The American Novel**  
(3-0) 3 hours credit. Prerequisite: ENG 2213.  
Reading and discussion of representative American novels.
- 3273 Milton**  
(3-0) 3 hours credit. Prerequisite: ENG 2213.  
Reading and analysis of Milton's major poems and selected prose in the context of his times.
- 3283 The Eighteenth-Century British Novel**  
(3-0) 3 hours credit. Prerequisite: ENG 2213.  
Critical survey of British novels, selected chiefly from the 18th century. Authors may include Austen, Burney, Fielding, and Richardson.
- 3293 The Nineteenth-Century British Novel**  
(3-0) 3 hours credit. Prerequisite: ENG 2213.  
Critical survey of British novels, selected from the 19th century. Authors may include the Brontës, Dickens, Eliot, and Hardy.
- 3303 Theory and Practice of Composition**  
(3-0) 3 hours credit. Prerequisite: ENG 2213.  
Extensive practice in the techniques of clear, effective writing. Designed for students who will write in their professions and will supervise the writing of others.
- 3313 Advanced Composition**  
(3-0) 3 hours credit. Prerequisite: ENG 2213.  
Study of the principles and procedures of informational and persuasive prose. Emphasis on coherence, liveliness, persuasiveness, and originality. Extensive writing practice, including the writing of arguments.
- 3323 History of the English Language**  
(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in literature.  
Historical survey of the development of the English language.
- 3333 Introduction to the Structure of English**  
(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in literature.  
Analysis of English syntax from various theoretical perspectives, including traditional, structural, and generative. Consideration of the concept of Standard English and of language variation, especially regional and social variation within modern English.
- 3343 Principles of English Linguistics**  
(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in literature.  
Introduction to the goals and procedures of modern linguistics, emphasizing phonetics, phonology, and morphology. Discussion of language acquisition and the neurolinguistic foundations of language ability. Some attention to topics such as semantics, pragmatics, and language change. (Same as LNG 3813 and ANT 3903. Credit cannot be earned for more than one of these courses.)

- 3393 Theory of Literature**  
(3-0) 3 hours credit. Prerequisite: ENG 2213.  
Critical study of the nature and function of literature and the relationship of literature to philosophy, history, and the other arts; attention to such topics as stylistics, genres, and literary history. (Formerly HUM 2013. Credit cannot be earned for both ENG 3393 and HUM 2013.)
- 3413 Specialized Professional Writing**  
(3-0) 3 hours credit. Prerequisite: ENG 2413.  
Writing for specialized purposes such as news releases, feature articles, reports, newsletters, speeches, scriptwriting, advertising, and professional correspondence.
- 3513 Mexican American Literature**  
(3-0) 3 hours credit. Prerequisite: ENG 2213 or ENG 2263.  
Critical study of literature by and about Mexican Americans, including prose, verse, drama, essays, and autobiography. Concentration on writings since 1959.
- 3613 African American Literature**  
(3-0) 3 hours credit. Prerequisite: ENG 2213 or ENG 2263.  
Critical study of literature by and about African Americans, including prose, verse, drama, essays, and autobiography.
- 3713 Topics in Multiethnic Literatures of the United States**  
(3-0) 3 hours credit. Prerequisite: ENG 2213.  
Comparative study of a specific genre or theme in the literatures of various ethnic groups in the United States such as African American, Asian American, Native American, and/or U.S. Latino/a. May be repeated for credit when topics vary.
- 4013 Restoration and Eighteenth-Century Literature**  
(3-0) 3 hours credit. Prerequisite: ENG 2233.  
Selected readings in the fiction, drama, poetry, and prose of the British literature of the late 17th century and the 18th century.
- 4023 Romantic Literature**  
(3-0) 3 hours credit. Prerequisite: ENG 2233.  
Selected readings in the fiction, poetry, and prose of the British Romantic period.
- 4033 Literary Modes and Genres**  
(3-0) 3 hours credit. Prerequisite: ENG 2223 or ENG 2233.  
Intensive study of a single mode or genre such as comedy, tragedy, allegory, satire, epic, or a type of nonfiction such as biography. May be repeated for credit when topics vary.
- 4053 Modern British and American Poetry**  
(3-0) 3 hours credit. Prerequisite: ENG 2233 or ENG 2263.  
An intensive study of chief modern poets.
- 4063 Medieval English Literature**  
(3-0) 3 hours credit. Prerequisite: ENG 2223.  
Study of the major English writings from the Anglo-Saxon and Middle English periods (excluding Chaucer), with special emphasis on *Beowulf* and Chaucer's contemporaries. Some works in translation, but original texts wherever possible.
- 4113 Renaissance Literature**  
(3-0) 3 hours credit. Prerequisite: ENG 2223.  
Selected readings from major writers of the 16th and early 17th centuries (excluding Shakespeare).

**4143 Victorian Literature**

(3-0) 3 hours credit. Prerequisite: ENG 2233.

Selected readings in the fiction, poetry, and nonfiction prose of major Victorian writers.

**4393 Feminist Theory of Literature**

(3-0) 3 hours credit. Prerequisite: ENG 3133 or ENG 3393.

Critical study of feminist theory and the relationship of gender to literature. Selected readings from major feminist theorists in connection with the study of literary texts.

**4423 Studies in Advanced Linguistics**

(3-0) 3 hours credit. Prerequisite: ENG 3343 or LNG 4013.

Specialized study of one or more areas of linguistic research, including historical linguistics, sociolinguistics, dialectology, linguistics for literary analysis, or languages in contact. May be repeated for credit when topics vary.

**4433 Advanced Professional Writing**

(3-0) 3 hours credit. Prerequisites: Completion of the Core Curriculum rhetoric requirement and completion of ENG 2413 or the equivalent.

Development of complex documents such as manuals, proposals, grants, environmental impact studies, newsletters, and brochures. Extensive practice in writing, layout and design, and preparation of professional documents. May be repeated when topics vary.

**4523 Writer's Workshop: Advanced Fiction Writing**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

Designed for students who have demonstrated potential as fiction writers. May be repeated for credit, but not more than 12 semester credit hours of ENG 4523 and/or ENG 4533 will apply to a bachelor's degree, and not more than 6 semester credit hours will apply toward the English major.

**4533 Writer's Workshop: Advanced Poetry Writing**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

Designed for students who have demonstrated potential as poets. May be repeated for credit, but not more than 12 semester credit hours of ENG 4523 and/or ENG 4533 will apply to a bachelor's degree, and not more than 6 semester credit hours will apply toward the English major.

**4613 Topics in Mexican American Literature**

(3-0) 3 hours credit. Prerequisite: ENG 2263 or ENG 3513.

Critical study of a topic in Mexican American literature: author, genre, or theme. May be repeated for credit when topics vary.

**4713 Topics in African American Literature**

(3-0) 3 hours credit. Prerequisite: ENG 2263 or ENG 3613.

Critical study of a topic in African American literature: author, genre, or theme. May be repeated for credit when topics vary.

**4911-3 Independent Study**

1 to 3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, the Department Chair, and the Dean of the college in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4933 Internship**

3 hours credit. Prerequisite: Consent of instructor.

Supervised experience relevant to English. May be repeated once for credit, but no more than 3 semester credit hours will apply toward the English major.

**4953 Special Studies in English**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

Organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when the topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4973 Seminar for English Majors**

(3-0) 3 hours credit. Prerequisite: 12 upper-division semester credit hours in English.

This undergraduate seminar, limited to English majors in their senior year, offers the opportunity to study a genre, author, or period in English or American literature. Content varies with each instructor. May be repeated once for credit when topics vary.

**4991-3 Honors Thesis**

1 to 3 hours credit. Prerequisites: Consent of instructor and Department Scholarship and Honors Committee; enrollment in or completion of ENG 4973.

Supervised research and preparation of an Honors Thesis for the purpose of earning English Honors.

May be repeated once with advisor approval.

**Honors in Humanities**

Students whose grade point average in the humanities major before the beginning of their final year at UTSA is 3.25 or above, and whose overall grade point average is 3.0, may earn Honors in Humanities. In order to do so, a student must complete a substantial paper approved by the Department Scholarship and Honors Committee and maintain a 3.25 grade point average in the major. The grade point average requirements apply to all transfer work and courses taken at UTSA.

**Bachelor of Arts Degree in Humanities**

The Bachelor of Arts degree in Humanities is an interdisciplinary degree program consisting of courses drawn from a number of academic disciplines.

The minimum number of semester credit hours required for this degree is 120, including the hours of the Core Curriculum requirements. Thirty-nine of the total semester credit hours required for the degree must be at the upper-division level.

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Humanities must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<i>Mathematics</i> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <i>Science</i> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Economics</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. Note: If a language is used to satisfy this three-hour requirement, students will need to take an additional three hours in the same language for the degree requirement.</p>

### Degree Requirements

#### A. 42 semester credit hours:

##### 1. 12 required semester credit hours:

CLA	2013	Introduction to Ancient Greece
CLA	2023	Introduction to Ancient Rome
HUM	3013	History of Ideas
HUM	4973	Seminar for Humanities Majors

##### 2. 9 semester credit hours of historical-period courses selected from the following:

HUM	3023	The Medieval World
HUM	3033	The Renaissance Idea of Humanity
HUM	3043	Classicism and Enlightenment
HUM	3053	The Romantic Age
HUM	3063	The Modern World

##### 3. 21 semester credit hours that should form an interdisciplinary course of study developed in conjunction with the undergraduate advisor and designed to aid the student's integration of his or her program in terms of central themes, focal problems, or fields of historical interest; at least 12 hours must be at the upper-division level.

The student must take at least 3 semester credit hours in each of the following five areas:

Classical studies (CLA), philosophy (PHI), humanities (HUM), art history and criticism (AHC), and literature in one of the following languages: English, French, German, Italian, Spanish, or Russian (this includes literature courses in translation, and culture and civilization courses).

The remaining 6 semester credit hours may be selected from these five areas or, with the approval of the undergraduate advisor, from other relevant areas such as history, music history, or the social sciences.

B. 6 semester credit hours in a single language other than English

C. 30 semester credit hours of electives

### **Minor in Humanities**

All students pursuing the Minor in Humanities must complete 21 semester credit hours.

A. HUM 3013 History of Ideas

B. 9 semester credit hours of background courses, with 3 hours selected from each of the three following groups:

1. CLA 2013 Introduction to Ancient Greece  
CLA 2023 Introduction to Ancient Rome  
CLA 2033 Introduction to Classical Literature
2. PHI 2013 Basic Philosophical Problems  
PHI 2023 Introduction to Ancient Philosophy  
PHI 2033 Introduction to Modern Philosophy
3. AHC 1113 Survey of Art and Architecture from Prehistoric Times to 1350  
AHC 1123 Survey of Art and Architecture in Europe and the New World from 1350 to 1750  
AHC 1133 Survey of Modern Art

C. 9 additional semester credit hours of upper-division coursework in Humanities

## **COURSE DESCRIPTIONS HUMANITIES (HUM)**

### **2093 World Religions**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

Examination of the origins, teachings, development, and philosophical foundations of the world's chief religious movements, such as Hinduism, Buddhism, Shintoism, Confucianism, Taoism, Sikhism, Janism, Islam, Zoroastrianism, Judaism, and Christianity. (Formerly HUM 3093 and PHI 3063. Credit cannot be earned for both HUM 2093 and either HUM 3093 or PHI 3063.) [TCCN: PHIL 1304.]

### **3013 History of Ideas**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

Survey of the development and influence of major philosophical, scientific, and aesthetic conceptions in Western civilization from ancient times to the present.

### **3023 The Medieval World**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

Interdisciplinary investigation of medieval thought and culture as exemplified in major works of literature, philosophy, theology, and history.

### **3033 The Renaissance Idea of Humanity**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

Interdisciplinary investigation of Renaissance thought and culture, as exemplified in major works of literature, philosophy, theology, and history; emphasis on the fundamental changes in the Western view of the world.

**3043 Classicism and Enlightenment**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.  
Interdisciplinary investigation of European thought and culture in the later 17th and the 18th centuries, as exemplified in major works of philosophy, literature, and the fine arts.

**3053 The Romantic Age**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.  
Interdisciplinary investigation of the development of ideas in literature, philosophy, art, politics, and society at the end of the 18th and beginning of the 19th century.

**3063 The Modern World**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.  
Interdisciplinary investigation of modern thought in the late 19th and 20th centuries, as exemplified in major works of philosophy, literature, and the fine arts.

**3103 American Film**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.  
Survey of the art, history, development, and major critical approaches to American film with attention to such topics as classic and revisionist film styles, cinematic apparatus, the history and development of film genres, and film as a part of American culture.

**3213 The Christian Classics**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.  
The opportunity for an intensive survey of selected works of writers studied in the context of Christian thought.

**3223 The Bible as Literature**

(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in literature.  
Offers the opportunity to survey major themes, stories, and motifs in the Old and New Testament, with emphasis on those elements fundamental to Western culture. (Formerly ENG 2513. Credit cannot be earned for both HUM 3223 and ENG 2513.)

**3263 Modern European Novel**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.  
Critical study of selected Continental novelists of the last hundred years.

**3623 Topics in National Cultures and Civilizations**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.  
The cultural life of the respective geographic regions and social strata of individual nations of Europe and America, as reflected in and interpreted by their artistic production. Individual topics may focus on a single nation or several nations. May be repeated for credit when topics vary.

**4911-3 Independent Study**

1 to 3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, the Department Chair, and the Dean of the College in which the course is offered.  
Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4953 Special Studies in Humanities**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.  
Organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when the topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4973 Seminar for Humanities Majors**

(3-0) 3 hours credit. Prerequisites: 12 upper-division semester credit hours in humanities, classics, or philosophy. Undergraduate seminar limited to humanities majors in their senior year. Content varies with each instructor. May be repeated once for credit when topics vary.

**4991-3 Honors Thesis**

1 to 3 hours credit. Prerequisites: Consent of instructor and Department Scholarship and Honors Committee; enrollment in or completion of HUM 4973.

Supervised research and preparation of an Honors Thesis for the purpose of earning Humanities Honors. May be repeated once with advisor approval.

**Honors in Philosophy**

Students whose grade point average in the philosophy major before the beginning of their final year at UTSA is 3.25 or above, and whose overall grade point average is 3.0, may earn Honors in Philosophy. In order to do so, a student must complete a substantial paper approved by the Department Scholarship and Honors Committee and maintain a 3.25 grade point average in the major. The grade point average requirements apply to all transfer work as well as courses taken at UTSA.

**Bachelor of Arts Degree in Philosophy**

The minimum number of semester credit hours required for this degree is 120, including the hours of the Core Curriculum requirements. Thirty-nine of the total semester credit hours required for the degree must be at the upper-division level.

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Philosophy must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Economics</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. Note: If a language is used to satisfy this three-hour requirement, students will need to take an additional three hours in the same language for the degree requirement.</p>

### Degree Requirements

A. 30 semester credit hours:

PHI	2013	Basic Philosophical Problems
PHI	2023	Introduction to Ancient Philosophy
PHI	2033	Introduction to Modern Philosophy
PHI	2043	Introductory Logic
PHI	3213	Ethics
PHI	3223	Approaches to Knowledge and Reality

12 additional upper-division semester credit hours of philosophy electives

B. 6 semester credit hours in a single language other than English

C. 12 semester credit hours of approved support work, at least 6 hours of which must be at the upper-division level, in one of the following categories:

- mathematics and natural sciences: computer science (CS), mathematics (MAT), statistics (STA), chemistry (CHE), geology (GEO), physics (PHY), astronomy (AST), and biology (BIO)
- social and behavioral sciences: American studies (AMS), anthropology (ANT), history (HIS), psychology (PSY), economics (ECO), political science (POL), and sociology (SOC)
- language, literature, and humanities: English (ENG), humanities (HUM), classical studies (CLA), communication (COM), comparative studies in the humanities (CSH), linguistics (LNG), and foreign languages
- history and theory of art and music: art history and criticism (AHC) and music (MUS)
- other subjects as may be individually justified by the student and approved by the undergraduate advisor.

D. 30 semester credit hours of electives

## Minor in Philosophy

All students pursuing the Minor in Philosophy must complete 21 semester credit hours.

A. 18 semester credit hours of required courses:

PHI	2013	Basic Philosophical Problems
PHI	2023	Introduction to Ancient Philosophy
PHI	2033	Introduction to Modern Philosophy
PHI	2043	Introductory Logic
PHI	3213	Ethics
PHI	3223	Approaches to Knowledge and Reality

B. 3 additional upper-division semester credit hours in Philosophy

### COURSE DESCRIPTIONS PHILOSOPHY (PHI)

#### 2013 Basic Philosophical Problems

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

Introduction to philosophy through general problems in metaphysics, epistemology, ethics, political philosophy, and philosophy of religion; emphasis on the writings of philosophers of various historical periods, especially as these doctrines apply to contemporary problems. [TCCN: PHIL 1301.]

#### 2023 Introduction to Ancient Philosophy

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

Introduction to ancient philosophy through the study of Plato, Aristotle, Epicurus, and others; emphasis on the Greek contribution to the moral and political ideas of the Western world. [TCCN: PHIL 2316.]

#### 2033 Introduction to Modern Philosophy

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

Introduction to modern philosophy from the Renaissance to the present through the study of Descartes, Locke, Hume, Leibniz, Kant, Kierkegaard, and others; emphasis on the relations of philosophy to the development of modern science, the social and political history of the Western world, and humankind's attempt to achieve a satisfactory worldview. [TCCN: PHIL 2317.]

#### 2043 Introductory Logic

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

Study of the principles of valid argument definition, deductive and inductive inference, and fallacies. [TCCN: PHIL 2303.]

#### 2123 Moral Issues in Contemporary America

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

Examination of ethical issues facing American society, with emphasis on medical, social, and business ethics.

#### 3013 Philosophy of Religion

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

Examination of traditional religious beliefs and such concepts as faith and knowledge, mysticism and theology, the existence and nature of God, and the relation of religion to experience and social life.

#### 3033 Philosophy of Science

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

Examination of major issues in the philosophical foundations of the natural and social sciences, including scientific explanation, laws and theories, probability and induction, and the relation of scientific inquiry to the Western philosophical tradition.

**3053 Philosophy of Art**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

Examination of major philosophical theories of art, beauty, and aesthetic judgment, with emphasis on such problems as form and structure, communication in art, and meaning in aesthetic judgment.

**3073 Asian Philosophy**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

Examination of the philosophical and religious traditions of the East, with emphasis on various schools such as Vedanta, Buddhism, Confucianism, and Taoism.

**3213 Ethics**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

Examination of ethical theory and of the nature and scope of ethical discourse, with emphasis on the concepts of good, human happiness, self-realization, virtue, duty, responsibility, and the means-ends relationship; reading will include selected classical and contemporary texts.

**3223 Approaches to Knowledge and Reality**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

Examination of the interrelations between the theory of knowledge and theory of reality, with emphasis on the nature and scope of human knowledge, sensation and understanding, truth and error, change and causality, possibility and actuality, and meaning and existence. Reading will include selected classical and contemporary texts.

**3343 Issues and Movements in Twentieth-Century Philosophy**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

Sustained study of recent works focusing on one or more specific issues or movements, such as philosophy of language, philosophy of mind, epistemology, political philosophy, theoretical or applied ethics, phenomenology, existentialism, hermeneutics, or postmodernism. May be repeated when topics vary.

**3403 Philosophy in Literature**

(3-0) 3 hours credit.

Examination of important philosophical questions, such as personal identity, the nature of moral value, and the limits of knowledge, as reflected in world literature, including such genres as fiction, drama, and poetry.

**4013 Studies in Individual Philosophers**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

Examination of the works of an individual philosopher or of several philosophers studied in relationship to one another. May be repeated for credit when topics vary.

**4113 Contemporary Analytic Philosophy**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

An in-depth examination of the major trends in the development of the Anglo-American philosophical tradition during the 20th century, including the early analysts, the development of logical positivism, and the emergence of nonformal linguistic analysis.

**4123 Contemporary Continental Philosophy**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

A sustained treatment of the major trends in 20th century European philosophy, including movements such as phenomenology, existentialism, hermeneutics, and postmodernism; emphasis on historical development.

**4333 Philosophy of Language**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

A critical examination of traditional problems dealing with the nature and function of language. Representative issues include analyticity, reference, proper names, metaphorical meaning, and speech-act theory.

**4911-3 Independent Study**

1 to 3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, the Department Chair, and the Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4953 Special Studies in Philosophy**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

Organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4991-3 Honors Thesis**

1 to 3 hours credit. Prerequisite: Consent of instructor and Department Scholarship and Honors Committee.

Supervised research and preparation of an Honors Thesis for the purpose of earning Philosophy Honors. May be repeated once with advisor approval.

**Honors in Classical Studies**

Students whose grade point average in the classical studies major before the beginning of their final year at UTSA is 3.25 or above, and whose overall grade point average is 3.0, may earn Honors in Classical Studies. In order to do so, a student must complete a substantial paper approved by the Department Scholarship and Honors Committee and maintain a 3.25 grade point average in the major. The grade point average requirements apply to all transfer work as well as courses taken at UTSA.

**Bachelor of Arts Degree in Classical Studies**

The minimum number of semester credit hours required for this degree is 120, including the hours of the Core Curriculum requirements. Thirty-nine of the total semester credit hours required for the degree must be at the upper-division level.

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Classical Studies must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Economics</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

**Degree Requirements**

## A. 17 semester credit hours:

CLA	2013	Introduction to Ancient Greece
CLA	2023	Introduction to Ancient Rome
LAT	1114	Introductory Latin I (or the equivalent)
LAT	1124	Introductory Latin II (or the equivalent)
PHI	2023	Introduction to Ancient Philosophy

## B. 18 semester credit hours of prescribed electives, selected from the following:

CLA	2323	Classical Mythology
CLA	3053	Topics in Classical Genres
CLA	3063	Topics in the Art and Architecture of the Classical World
CLA	3123	Cultural Issues in Classical Antiquity
CLA	3513	Topics in Classical History
CLA	4913	Independent Study
CLA	4953	Special Studies in Classics
FL	2043	Individualized Instruction in Intermediate-Level Language (provided the instruction is in Latin; may be repeated once for credit.)
FL	3043	Individualized Instruction in Advanced-Level Language (provided the instruction is in Latin; may be repeated as often as subject matter varies.)
LAT	2113	Intermediate Latin I (or the equivalent)

C. 9 semester hours of approved support work. Support work may be drawn from upper-division (3000- or 4000-level) courses listed in HUM, ANT, ENG, PHI, COM, MUS, ARC, CSH, HIS, or any foreign language of the Department of Modern Languages and Literatures in the *UTSA 2004-2006 Undergraduate Catalog*.

## D. 34 semester credit hours of electives

## Minor in Classical Studies

All students pursuing the minor in Classical Studies must complete 21 semester credit hours of Classics courses:

- A. Successful completion of LAT 2113 or its equivalent.
- B. 9 semester credit hours of required courses:
  - CLA 2013 Introduction to Ancient Greece
  - CLA 2023 Introduction to Ancient Rome
  - CLA 2033 Introduction to Classical Literature
- C. 9 additional semester credit hours of 2000-level Latin (including Latin study in FL 2043) or of upper-division coursework in Classics or Latin (including Latin study in FL 3043).

## COURSE DESCRIPTIONS CLASSICS (CLA)

- 2013 Introduction to Ancient Greece**  
(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.  
Introduction to the civilization and cultural achievements of ancient Greece, including history, religion, philosophy, literature, and art.
- 2023 Introduction to Ancient Rome**  
(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.  
Introduction to the civilization and cultural achievements of ancient Rome, including history, religion, philosophy, literature, and art.
- 2033 Introduction to Classical Literature**  
(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.  
Introductory study of selected works of ancient Greek and Roman authors, with emphasis on epic, drama, satire, and lyric.
- 2323 Classical Mythology**  
(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.  
Critical survey of secular and religious classical mythology; attention to the use of myth in ancient literature and the functions of myth in historical, cultural, and cross-cultural contexts.
- 3023 Classical Myths and Literature**  
(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in literature.  
Critical examination of ancient Greek and Roman myths and their functions in literary texts and ancient societies; attention to current theories and methodologies of mythic analysis.
- 3053 Topics in Classical Genres**  
(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.  
Consideration of texts selected to illustrate the structural and conceptual properties of a given genre in the classical world, e.g., comedy, poetry, or tragedy. May be repeated for credit when topics vary.
- 3063 Topics in the Art and Architecture of the Classical World**  
(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.  
A study of one or more themes, periods, traditions, or archaeological sites in the art and architecture of the ancient Greek and Roman world. May be repeated for credit when topics vary.

**3123 Cultural Issues in Classical Antiquity**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

Examination of issues in ancient Greek and Roman power relations and social differences as reflected in classical literature and historical material. Coverage of such topics as slavery, attitudes towards barbarians, gender, and intergenerational strife. May be repeated for credit when topics vary.

**3513 Topics in Classical History**

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement.

An examination of selected events, trends, and transformations in the history of ancient Greece and ancient Rome. May be repeated for credit when topics vary.

**4911-3 Independent Study**

1 to 3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, the Department Chair, and the Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4953 Special Studies in Classics**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

Organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies courses may be repeated for credit when the topics vary, but no more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

**4991-3 Honors Thesis**

1 to 3 hours credit. Prerequisite: Consent of instructor and Department Scholarship and Honors Committee.

Supervised research and preparation of an Honors Thesis for the purpose of earning Classical Studies Honors. May be repeated once with advisor approval

## **COURSE DESCRIPTIONS**

### **LATIN (LAT)**

**1114 Introductory Latin I**

(3-2) 4 hours credit.

Fundamentals of Latin grammar and readings in Latin. [TCCN: LATI 1411.]

**1124 Introductory Latin II**

(3-2) 4 hours credit. Prerequisite: LAT 1114.

Fundamentals of Latin grammar and readings in Latin. [TCCN: LATI 1412.]

**1214 Self-Paced Introductory Latin**

4 hours credit.

Fundamentals of Latin grammar and readings in Latin. Students take two semesters of this course to complete the first two semesters of Latin on a self-paced basis. May be repeated for credit, but no more than 8 semester credit hours may be used in any degree program. Students must demonstrate competency with a "C" or better before repeating this course for credit. Students cannot receive credit for both LAT 1114 and a first semester of this course; students cannot receive credit for both LAT 1124 and a second semester of this course.

**2113 Intermediate Latin I**

(3-0) 3 hours credit. Prerequisite: LAT 1124 or the equivalent.

Continued practice in reading Latin. Selections from Cicero, Sallust, Catullus, and/or Virgil. Review of Latin grammar and syntax. [TCCN: LATI 2311.]

- 2123 Intermediate Latin II**  
(3-0) 3 hours credit. Prerequisite: LAT 2113 or the equivalent.  
Reading and in-depth analysis of a particular Latin author such as Ovid, Virgil, Cicero, Lucretius, Petronius, or Plautus. (Formerly CLA 2123 and LAT 2023. Credit cannot be earned for both LAT 2123 and either CLA 2123 or LAT 2023.) [TCCN: LATI 2312.]
- 2213 Self-Paced Intermediate Latin**  
3 hours credit. Prerequisite: LAT 1124 or the equivalent.  
Review of the Latin grammar and syntax. Continued practice in reading Latin, including such authors as Catullus, Cicero, Lucretius, Ovid, Petronius, Plautus, Sallust, and Virgil. Students take two semesters of this course to complete the third and fourth semesters of Latin on a self-paced basis. May be repeated for credit, but no more than 8 semester credit hours may be used in any degree program. Students must demonstrate competency with a “C” or better before repeating this course for credit. Students cannot receive credit for both LAT 2113 and a first semester of this course; students cannot receive credit for both LAT 2123 and a second semester of this course.
- 3113 Selected Latin Authors**  
(3-0) 3 hours credit. Prerequisite: LAT 2123 or the equivalent.  
Close reading and critical analysis of a Latin text or texts, author, topic, or genre. May be repeated for credit when authors vary.
- 4013 Advanced Readings in Latin**  
(3-0) 3 hours credit. Prerequisite: LAT 2123 or the equivalent.  
Concentrated readings and interpretation of a selected Latin author, genre, or series of texts. May be repeated for credit when topics vary.

## COURSE DESCRIPTIONS

### THEATER

#### (THR)

- 1013 Acting I**  
(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in literature.  
Fundamental techniques of acting, emphasizing the actor’s approach to characterization and relationship to all parts of the play’s production. [TCCN: DRAM 1351.]
- 1023 Acting II**  
(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in literature.  
Sustained character portrayal. Intensive work in stage movement and vocal techniques, including dialects. [TCCN: DRAM 1352.]

## DEPARTMENT OF HISTORY

The Department of History offers Bachelor of Arts degrees in American Studies and History. It also offers minors in American Studies, History, and Women and Gender Studies.

### DEPARTMENT HONORS

Students whose grade point average in the History or American Studies major (including support work) before the beginning of their final year at UTSA is 3.5 or above, and whose overall grade point average is 3.0, may earn Department Honors. To do so, students must enroll in the honors thesis course (HIS 4993) their final two semesters and must complete a substantial original research project approved by the faculty supervisor and another faculty member. Students must maintain a 3.5 grade point average in both the major and support work to be eligible for the award.

### Bachelor of Arts Degree in American Studies

American Studies combines the study of history, literature, the arts, and social sciences to understand the diverse perspectives on cultural traditions and material practices shaping regional, ethnic, class, gender, and political diversity in the United States. American Studies students will conduct interdisciplinary study of topics such as race and ethnicity, gender and sexuality, transnationalism and border studies, urban experience, social justice, cultural studies, and religion. American Studies provides excellent preparation for careers in many fields, including law, journalism, government, foreign service, social work, international business, education, nonprofit, and public administration.

The minimum number of semester credit hours required for this degree, including the Core Curriculum requirements, is 120. Thirty-nine of the total semester credit hours required for the degree must be at the upper-division level.

All candidates for this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in American Studies must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) AMS 2043 Approaches to American Culture</p> <p><b><i>Economics</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Degree Requirements

- A. 39 semester credit hours in courses approved by the American Studies advisor, of which 21 must be at the upper-division level:
1. 24 semester credit hours of required courses:
    - a. AMS 2043 Approaches to American Culture  
AMS 3123 Applications of American Studies  
AMS 3243 Studies in Transnationalism  
AMS 3343 Studies in Race and Ethnicity  
AMS 3443 Studies in Gender and Sexuality
    - b. 6 semester credit hours of AMS 4823 Topics in American Culture  
  
AMS 4823 may be repeated for credit as long as the topics differ. Students can also take AMS 4983 Senior Thesis in their last semester in partial fulfillment of this requirement.
    - c. AMS 4973 Advanced Seminar in American Studies
  2. 15 semester credit hours of support work focused on the Americas from at least two disciplines. American content may be interpreted as North, South and Central America, and the Caribbean. The American Studies faculty advisor must approve all support work.  
  
Up to 9 hours of Foreign Language study may be counted as support work. Students can also take 3 semester credit hours of AMS 4933 Internship in partial fulfillment of this requirement.
- B. 39 semester credit hours of electives

Students majoring in American Studies are encouraged to make advising appointments with faculty in AMS early in their course of study.

## Minor in American Studies

All students pursuing a Minor in American Studies must complete 21 semester credit hours.

A. 12 semester credit hours of required courses:

AMS	2043	Approaches to American Culture
AMS	3123	Applications of American Studies
AMS	4823	Topics in American Culture
AMS	4973	Advanced Seminar in American Studies

B. 9 additional semester credit hours of the following courses:

AMS	3243	Studies in Transnationalism
AMS	3343	Studies in Race and Ethnicity
AMS	3443	Studies in Gender and Sexuality

Students have the option of taking AMS 4933 Internship to substitute for one of the above courses.

To declare a Minor in American Studies, or seek approval of substitutions for course requirements, students should consult the College of Liberal and Fine Arts Advising Center or an AMS Faculty Advisor.

## COURSE DESCRIPTIONS AMERICAN STUDIES (AMS)

### **2043 Approaches to American Culture**

(3-0) 3 hours credit.

Introduces students to a variety of approaches to the study of American culture. Course materials will focus on key concepts such as race and ethnicity, transnationalism and border studies, and gender and sexuality. Students will be encouraged to integrate community-based resources such as local museums, archives, and research centers into course-required projects.

### **2103 Introduction to African American Studies**

(3-0) 3 hours credit.

Offers an interdisciplinary introduction to major topics in African American Studies. Course materials will address basic contours of the black experience in the United States. Topics may include historical, autobiographical, political, cultural, sociological, literary, and/or popular responses to and representations of African Americans in the United States. (Same as AAS 2013. Credit cannot be earned for AMS 2103 and AAS 2013.)

### **3013 Early American Culture**

(3-0) 3 hours credit.

Examines the influences that shaped American culture to the 20th century. Topics may include the impact of colonialism, the Enlightenment, the frontier, industrialism, ethnicity, race, religious reform, and other factors in the development of a distinctive society.

### **3023 Modern American Culture**

(3-0) 3 hours credit.

Examines major trends in American culture during and after the industrial revolution, with special attention to the consequences of urbanization, suburbanization, industrialization, race relations, popular culture, technology, and secularization.

### **3123 Applications of American Studies**

(3-0) 3 hours credit.

Applications of theories and methods of American Studies to particular areas of U.S. culture. Course addresses concepts of nationalism, citizenship, and nation building, inclusion and exclusion in American society, as well as how American cultural and group identities exist in relation to each other.

- 3243 Studies in Transnationalism**  
(3-0) 3 hours credit.  
Exploration of borders, boundaries, crossings, and exchange in American Studies, with special reference to questions of national identity, material culture, transnationalism, and the impacts of globalization. May be repeated for credit when topics vary.
- 3343 Studies in Race and Ethnicity**  
(3-0) 3 hours credit.  
The study of historical, social, cultural, and material influences on race and ethnicity. Course will use texts from literature, sociology, history, and other disciplines. May be repeated for credit when topics vary.
- 3443 Studies in Gender and Sexuality**  
(3-0) 3 hours credit.  
Examination of topics such as masculine, feminine, gay, lesbian, bisexual, and transgendered definitions of gender and sexuality. Course will use texts from literature, sociology, history, and other disciplines. May be repeated for credit when topics vary.
- 4823 Topics in American Culture**  
(3-0) 3 hours credit.  
An in-depth study of a selected issue or topic in American Studies. May be repeated for credit when topics vary.
- 4913 Independent Study**  
3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's AMS advisor, the Department Chair, and Dean of the College of Liberal and Fine Arts.  
Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.
- 4933,6 Internship in American Studies**  
3 or 6 hours credit. Prerequisite: Consent of AMS program coordinator.  
Supervised experience relevant to American Studies within selected community organizations. A maximum of 6 semester credit hours may be earned through Internship in American Studies. Must be taken on a credit/no-credit basis. Only 3 semester credit hours can be applied to the major in American Studies.
- 4973 Advanced Seminar in American Studies**  
(3-0) 3 hours credit. Prerequisites: AMS 2043, AMS 3123, and one of the following: AMS 3243, AMS 3343, AMS 3443, or with consent of instructor.  
An in-depth study of a central theme, problem, or topic in American Studies. Focuses on research methods and preparation of senior portfolio required for the major degree.
- 4983 Senior Thesis**  
3 hours credit. Prerequisite: Approval of an AMS Faculty Advisor.  
Supervised research and preparation of a senior thesis in the student's last semester.
- 4993 Honors Thesis**  
3 hours credit. Prerequisite: Enrollment limited to candidates for Honors in American Studies during their last two semesters; completion of honors examination and consent of the Honors College.  
Supervised research and preparation of an honors thesis. May be repeated once with advisor's approval.

## Bachelor of Arts Degree in History

The degree program in History combines the development of informed perspectives, cultivation of analytical skills, and mastery of content areas that covers the United States and different regions in the world. A major in History teaches a student to write effectively and expressively, to think critically, to analyze arguments, and to communicate ideas. These skills will all aid in the pursuit of a career in a variety of fields.

The minimum number of semester credit hours required for this degree, including the Core Curriculum requirements, is 120. Thirty-nine of the total semester credit hours required for the degree must be at the upper-division level.

All candidates for this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in History must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. Courses taken to satisfy Core Curriculum requirements in U.S. History and Diversity may not be used to satisfy degree requirements. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

<b>Domain IV: Interdisciplinary Studies</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses (including IDS 2203, 2213, and HIS 2123, 2133, 2533, 2543, 2553, 2573) will satisfy this core requirement.
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### Degree Requirements

- A. 33 semester credit hours in the major, of which 21 must be at the upper-division level:
1. HIS 2003 Historical Methods  
This is a foundational course for the major. Students must take it as early as possible in their program.
  2. 9 semester credit hours selected from the sophomore-level civilization courses, including HIS 2123, HIS 2133, and courses numbered HIS 2533 to HIS 2583.
  3. 18 upper-division semester credit hours of history courses, including at least one U.S., one European, and one Latin American, African, or Asian studies.
  4. 3 semester credit hours from HIS 4973 Seminar in History. HIS 2003 Historical Methods is a prerequisite for enrollment in this course.
- B. 12 semester credit hours in approved upper-division courses from other disciplines that support the study of history. **The student must consult with his or her faculty advisor to define a cohesive support area, and the faculty advisor's approval is required for each course.**

The student may choose another option: the completion of 6 semester credit hours at any level in a single language other than English and another 6 semester credit hours in a related area of study. Students who choose the option to take six lower-division foreign language hours should make sure they have enough upper-division hours (39) to meet the university requirement for graduation.

Recommended areas for support work include, but are not limited to:

American Studies	English
Anthropology	Geography
Art History	Philosophy
Bicultural-Bilingual Studies	Political Science
Classics	Psychology
Communication	Sociology
Criminal Justice	Women and Gender Studies
Economics	

- C. 33 semester credit hours of electives

### Minor in History

All students pursuing a Minor in History must complete 18 semester credit hours.

- A. 9 semester credit hours of required courses:
- |     |      |  |
|-----|------|--|
| HIS | 2003 | Historical Methods                             |
| HIS | 2123 | World Civilization to the Fifteenth Century    |
|     |      | or   |
| HIS | 2133 | World Civilization since the Fifteenth Century |

Up to 3 hours chosen from the following:

HIS	2533	Introduction to Latin American Civilization
HIS	2543	Introduction to Islamic Civilization
HIS	2553	Introduction to East Asian Civilization
HIS	2563	Introduction to European Civilization
HIS	2573	Introduction to African Civilization
HIS	2583	Introduction to South Asian Civilization

B. 9 additional semester credit hours of upper-division history electives.

To declare a Minor in History, obtain advice, or seek approval for substitutions for course requirements, students should consult the College of Liberal and Fine Arts Advising Center.

## **COURSE DESCRIPTIONS**

### **HISTORY**

#### **(HIS)**

#### **1043 United States History: Pre-Columbus to Civil War Era**

(3-0) 3 hours credit.

From a variety of perspectives, this course will analyze topics covering the geography of North America; Pre-Columbian societies; European colonial societies and their transition into the national period; the development of modern economic structures and political traditions; westward expansion; class, race, ethnicity, and gender; cultural diversity and national unity; the relations of the United States to other nations and cultures; and the impact of these trends and issues on the development of the nation. [TCCN: HIST 1301.]

#### **1053 United States History: Civil War Era to Present**

(3-0) 3 hours credit.

From a variety of perspectives, this course will analyze topics covering the development of the United States as an urban industrial nation; the rising importance of the business cycle, corporations, and immigration; political traditions; class, race, ethnicity, and gender; cultural diversity and national unity; the relationship between the United States and other nations and cultures; and the impact of these trends on the development of the nation. [TCCN: HIST 1302.]

#### **2003 Historical Methods**

(3-0) 3 hours credit. Prerequisite: WRC 1013.

An introduction to the study of history in which students will consider examples and approaches to the problems of research and writing in the field. This course is designed for students completing requirements for a major or minor in history.

#### **2053 Texas History**

(3-0) 3 hours credit.

An overview of the development of Texas from the era of Spanish exploration and colonization to the modern period, with emphasis on major events in the 19th and 20th centuries. Topics may vary, but generally will include cultural geography, contributions of ethnic minorities and women, the Republic of Texas, statehood, secession, Reconstruction, conservatism, reform, oil exploration, urbanization, and political, economic, and social change in the post-World War II era. [TCCN: HIST 2301.]

#### **2073 World History in the Cinema**

(3-0) 3 hours credit.

An analysis of several classic films to introduce for closer critical study important events and issues in world history which have intrigued film makers and their audiences as well as historians. Exploration of the similarities and differences between artistic and historical imagination.

- 2123 Introduction to World Civilization to the Fifteenth Century**  
(3-0) 3 hours credit.  
A general introduction to World History from the Late Neolithic to the Columbian Encounter in the late 15th century CE. Broad overview of the pattern of development of major civilizations and their interactions with closer attention given to those events, institutions, beliefs, and practices that involved and affected large numbers of people and had lasting significance for later generations. (Same as IDS 2203. Credit cannot be earned for both HIS 2123 and IDS 2203) [TCCN: HIST 2321.]
- 2133 Introduction to World Civilization since the Fifteenth Century**  
(3-0) 3 hours credit.  
A general introduction to World History since the late 15th century CE. Broad overview of the pattern of development of major civilizations and their interactions with closer attention to those events, institutions, beliefs, and practices that involved and affected large numbers of people and laid foundations of the modern world. (Same as IDS 2213. Credit cannot be earned for both HIS 2133 and IDS 2213.) [TCCN: HIST 2322.]
- 2203 Historical Background to Contemporary Problems**  
(3-0) hours credit.  
The purpose of this course is to acquaint students with the historical background for some major issues of the day. Topics will highlight current concerns and give insights into how the historian looks at the past, seeking to understand the forces that lead to current “hot spots.” Topics may include modern ideologies and political systems; relationship of the West and non-West; nationalism and internationalism; and environment and world resources.
- 2533 Introduction to Latin American Civilization**  
(3-0) 3 hours credit.  
An introduction to Latin America examining the broader topics that shaped its history. These topics may include Native American societies; the encounter between Native Americans, Europeans, and Africans; the post-Independence era; the different paths toward nation-building; the nature of authoritarian regimes; the impact of revolutions; and the cultural development of Latin America and its historiography.
- 2543 Introduction to Islamic Civilization**  
(3-0) 3 hours credit.  
An introduction to the role of Islam in world history from the Prophet and the founding of the Umayyad Caliphate to the breakup of the Ottoman Empire. Primary focus will be on the Ottoman Empire, its institutions and culture, and its interaction with Western civilization.
- 2553 Introduction to East Asian Civilization**  
(3-0) 3 hours credit.  
An introduction to East Asian history and culture from antiquity down to the beginning of the modern period around the 17th and 18th centuries. The course will cover China, Japan, Korea, and Vietnam, with particular attention to the development of culture, society, and the state in the traditional era prior to the arrival of the West in East Asia. [TCCN: HIST 2323.]
- 2563 Introduction to European Civilization**  
(3-0) 3 hours credit.  
An introduction to the major historical and historiographical problems in the experience of Europe from the earliest times to the present. The course will expose students to a variety of intellectual approaches and to the diversity of European history.
- 2573 Introduction to African Civilization**  
(3-0) 3 hours credit.  
An introduction to the major historical and historiographical problems in the experience of Africa from the earliest times to the present. The course will expose students to a variety of intellectual approaches and to the diversity of African history.

**2583 Introduction to South Asian Civilization**

(3-0) 3 hours credit.

This course explores the history, cultures, religions, and civilization of the Indian subcontinent from earliest times to the present. It begins with prehistory and the Indus civilization, the migration and settlement of the Aryans, the ancient empires of the Maurya and Gupta, and the Islamic conquest. The rise and fall of various Muslim kingdoms of the Mughal Empire, British colonial rule, the nationalist movements and independence of India, Pakistan, and Bangladesh are also discussed.

**3003 Colonial America and the Formation of American Society**

(3-0) 3 hours credit.

An examination of the development and transformation of colonial societies in the 17th and 18th centuries, with special emphasis on family and community studies as measures of social change.

**3013 Nonviolence: Gandhi, Mandela, King**

(3-0) 3 hours credit.

This course examines how Gandhi's ideas of nonviolence have been used in India and in other places in the modern world. The course will first look at the sources of Gandhi's thinking, such as the writings of Tolstoy and Thoreau, then examine how Gandhi used nonviolence in his struggle against the British government in India. It will then examine nonviolence movements in world history, including those led in America by Martin Luther King, Jr. and in South Africa by Nelson Mandela.

**3023 American Independence and National Unity, 1760-1820**

(3-0) 3 hours credit.

Topics may include origins of the American Revolution, the Revolutionary War, the struggle for unity, and the early years of nationhood.

**3043 History of Women in the United States: Pre-Columbus to 1890**

(3-0) 3 hours credit.

An examination of how women have been affected by economic, social, cultural, and political structures, with emphasis on the role of class, race, ethnicity, region, and age. Topics may include Native American societies, colonial life, the impact of the American Revolution, the early national period, slavery, the Civil War, westward expansion, and the "cult of domesticity." (Formerly HIS 3473. Credit cannot be earned for both HIS 3043 and HIS 3473.)

**3053 History of Women in the United States: Since 1890**

(3-0) 3 hours credit.

This course will offer an analysis of women's lives in U. S. history since 1890 and may examine women's role in the Progressive Era; World Wars; the Civil Rights Movement; and the Feminist Movement. It will consider the effects of economic, social, cultural, and political structures on women since 1890, with particular attention to the role of class, race, ethnicity, region, and age. (Formerly HIS 3473. Credit cannot be earned for HIS 3053 and HIS 3473.)

**3063 The Spanish Borderlands, 1521-1821**

(3-0) 3 hours credit.

An overview and analysis of Spanish exploration and colonization in the northern frontier of colonial Mexico, including the introduction of Hispanic institutions, customs, and traditions in the development of a frontier society in the region adjacent to the international boundary.

**3073 The Mexican Borderlands/The American Southwest**

(3-0) 3 hours credit.

American westward movement into the Southwest, the settlement and development of the area, and its political history are considered in relation to national trends. Attention is given to the area as a meeting place of various European, American, and Asian ethnic groups and to their cultural institutions and expressions as reflections of the development of the area within U.S. history.

- 3083 History of the American West**  
(3-0) 3 hours credit.  
An examination of the American westward movement in the 19th and 20th centuries. Topics may include the conquest and settlement of the territory, the relationship of the new territory to the nation, patterns of economic development, community building, population diversity, and the symbolism of the frontier.
- 3093 United States Constitutional History**  
(3-0) 3 hours credit.  
Constitutional developments from the formation of the state and federal constitutions to Watergate. Particular attention is paid to the context of judicial decision-making at the Supreme Court level and the impact of those decisions on American life. Complements POL 3323 Constitutional Law.
- 3113 The American Indian**  
(3-0) 3 hours credit.  
A history of the American Indian from European contact to the present. Attention is given to the internal cultural, economic, and political developments of the different Indian groups as well as to the European and American developments and policies affecting the Indian.
- 3123 Colonial Texas under Spanish and Mexican Rule to 1836**  
(3-0) 3 hours credit.  
An overview of Texas history beginning with 16th-century and 17th-century Spanish exploration, with emphasis on 18th-century colonization, and culminating in 19th-century Anglo American immigration and the sociopolitical changes that resulted in Texas independence.
- 3133 Themes in the Social History of the United States**  
(3-0) 3 hours credit.  
A survey of social history focusing on the American experience. The course explores changes in the family, work, gender roles, mobility, migration, urbanization, and industrialization, with special attention to class, race, ethnicity, and gender.
- 3143 History and Anthropology**  
(3-0) 3 hours credit.  
The course will examine the method by which historians and anthropologists have made sense of each other's work in different times and places, and how the two disciplines have borrowed and lent each other concepts, such as culture, time, and space. This course examines the dialogue possibilities and potential pitfalls of interdisciplinary research in history and anthropology.
- 3153 Development of American Urban Society**  
(3-0) 3 hours credit.  
This course investigates the impact of urbanization on American society, economy, and culture. Topics may vary, but consideration will be given to urban social and spatial organization, migration, urban systems, technology, communication, and forms of individual and family adaptation.
- 3173 Modern America, 1914-1945**  
(3-0) 3 hours credit.  
An examination of the many developments which fundamentally transformed American society between 1914 and 1945. The course examines how these developments reverberated throughout society, affecting all aspects of American life from habits of leisure to patterns of race relations, from the role of women to the style of presidential leadership.
- 3183 Law and American Development**  
(3-0) 3 hours credit.  
The impact of law from colonial times to the present. Particular attention will be paid to the impact of law on social change, economic growth, and political development.

**3193 The South in American History**

(3-0) 3 hours credit.

Topics may include development of southern identity, slavery, Civil War and Reconstruction, Jim Crowism, the black experience, and the civil rights movement, with emphasis on the period since 1815.

**3213 France since 1750**

(3-0) 3 hours credit.

Introduction to the culture, politics, and life of France. Intensive examination of a central event in European history: the French Revolution and its role in the formation of modern France.

**3243 Europe in the Nineteenth Century**

(3-0) 3 hours credit.

The course offers a survey of European history from the Congress of Vienna until World War I. Topics may include an examination of the changing scope of international relations, industrial growth and acceleration, the conditions among social groups, and various social and political initiatives among European nations.

**3253 The United States Since 1945**

(3-0) 3 hours credit.

An examination of the social, political, economic, and cultural developments which have shaped life in the United States since World War II. Students will explore the causes and consequences of the country's evolution into a pluralistic, suburban, postindustrial super power during the last half of the 20th century.

**3263 Seventeenth- and Eighteenth-Century Europe**

(3-0) 3 hours credit.

A survey of European history under the Ancient Regime to 1789. Examination of the development of and the limits to absolutism, the "crisis" of the 17th century and the Baroque, the rise of science, and the culture of the Enlightenment.

**3273 The Early Middle Ages**

(3-0) 3 hours credit.

This course will examine culture and society in the West (in what was to be Europe) from Late Antiquity to about 1000 A.D. It will focus on the transformation and survival of old social, political, and cultural forms at the end of the Roman Empire and the emergence of new ones in the successor states of Italy, Gaul, Germany, and Britain.

**3283 Twentieth-Century Europe**

(3-0) 3 hours credit.

Economic, social, political, and cultural change in Europe since World War I. Topics may include the formation of new political movements (such as social democracy, communism, fascism) between the wars, World War II and its effects, the postwar transformation of Europe, and the Cold War in Europe.

**3293 Imperial Spain**

(3-0) 3 hours credit.

Iberian history from the evolution of the northern kingdoms to the early 19th century. Topics may include the growth and development of Castile and Aragon, Hapsburg imperialism, the Bourbon reformers, and the collapse of the monarchy and the rise of the Carlist movement.

**3303 History of Mexico**

(3-0) 3 hours credit.

An overview of Mexican history from the Pre-Columbian indigenous civilizations to the present. The course will cover the peopling of Mexico, the conquest, the formation of colonial society, independence, the Mexican American War, the liberal reforms, the Porfiriato, and the Mexican Revolution.

**3313 History of U.S. Relations with Latin America**

(3-0) 3 hours credit.

A survey of U.S. relations with Latin America from the Monroe Doctrine to the present. General topics may include the Monroe Doctrine, Manifest Destiny, gunboat diplomacy, the Good Neighbor Policy, the Cold War, and the Alliance for Progress. Specific themes include U.S. reactions to revolutions, authoritarian regimes, and reformist governments.

- 3343 Modern Central America and the Caribbean**  
(3-0) 3 hours credit.  
The course will emphasize the 19th and 20th centuries and may include the breakdown of colonialism; the problems of independence; the rise and decline of slavery; the impact of foreign capital and imperialism; and the importance of nationalism, socialism, fascism, communism, and revolution in the contemporary era.
- 3353 Latin America since Independence**  
(3-0) 3 hours credit.  
The course will emphasize the 19th and 20th centuries and may include the following topics: the breakdown of colonialism; the problems of independence; neocolonial development; the impact of the Depression; industrialization and urbanization; and the importance of nationalism, socialism, fascism, communism, and revolution in the contemporary era.
- 3373 Revolution in Latin America**  
(3-0) 3 hours credit.  
An analysis of the role colonial legacies played in 19th- and-20th century social and political violence. Case studies may include Mexico, Bolivia, Cuba, Chile, and Nicaragua.
- 3403 Pre-Hispanic and Colonial Latin America**  
(3-0) 3 hours credit.  
An analysis of the Pre-Columbian Indian civilizations, the Spanish conquest, and the Spanish and Portuguese colonial societies of the New World.
- 3433 The Emergence of Modern America, 1877- 1914**  
(3-0) 3 hours credit.  
An examination of social and political responses to the industrial revolution in the United States.
- 3443 Latinos in the United States**  
(3-0) 3 hours credit.  
A study of Mexican Americans, Puerto Ricans, Cubans, and other Latinos in the United States. Special attention will be given to ethnic institutions and traditions, as well as to interethnic relations and theories of assimilation and acculturation.
- 3463 History of Religion in the United States**  
(3-0) 3 hours credit.  
Religious behavior, ideas, and institutions in American society from colonial times to the present, with special emphasis on periods of religious change, including the First and Second Great Awakening, the Social Gospel, and the New Religious Consciousness.
- 3493 History of San Antonio**  
(3-0) 3 hours credit.  
Topics may include the cultural origins of colonial San Antonio; political, economic, and social development; and the effects of urbanization on local ethnic communities.
- 3503 The Expansion of Europe, 1415-1800**  
(3-0) 3 hours credit.  
A survey of European exploration, cultural and economic expansion, colonization, and imperialism.
- 3523 European Cultural History**  
(3-0) 3 hours credit.  
Introduction to various aspects of the European cultural heritage focusing on the interaction between society and culture. Topics may include popular culture, the arts, philosophy, science, social theory, ideology, and mass media.
- 3533 The Urban History of Western Civilization**  
(3-0) 3 hours credit.  
This course examines the role of cities in the development of Western civilization and focuses on the ways cities contributed to the rise of states, the emergence of organized economic life, and the creation of a distinctive culture.

**3543 History of Modern Warfare**

(3-0) 3 hours credit.

Survey of the major developments in the history of war since the Napoleonic era. Analyses of the social, economic, and political context in which wars have occurred. Topics may include emergence of new forms of weaponry, strategy, logistics, and tactics.

**3553 Civil War America**

(3-0) 3 hours credit.

This course explores the Civil War era in American history, beginning by tracing the causes of the Civil War, including the role that the economics of slavery played in the conflict. It studies the war itself, examining the social, cultural, and military aspects of the war. The course concludes with an examination of the attempts to reconstruct the Union in the years after the Confederate surrender.

**3563 African American History to the Civil War**

(3-0) 3 hours credit.

A survey of the social, economic, political, and cultural history of African Americans from the time of contact with European slave traders until the Civil War. The course will examine the process by which millions of Africans were taken from their homelands, enslaved, and transported to America, where they were gradually, and often violently, transformed into Americans. While the course will focus on the United States, it will also consider how the experiences of Blacks in America relate to the history of the peoples of the African diaspora.

**3573 African American History since the Civil War**

(3-0) 3 hours credit.

This course surveys the African American experience from emancipation to the present, focusing on political, economic, cultural, and social developments. The course will utilize both traditional historical methodology, with its emphasis on chronology and the examination of documents and alternative interdisciplinary methodologies, which analyze nontraditional sources such as film, music, and oral interviews.

**3593 Race, History, and the Making of the American South**

(3-0) 3 hours credit.

This class will examine the racial histories of Americans living in the South from colonial contact to the civil rights movement. The interlocking lives of American Indians, Blacks, Hispanics, and Anglo-Americans will be examined. This class will also study how historians have portrayed each group over time. Different “frontiers” in interracial histories, such as economic, religious, domestic, and sexual, will be considered.

**3603 Africa in Colonial and Post-Colonial Contexts**

(3-0) 3 hours credit.

This course focuses on political and social change in Africa after 1800, a particularly tumultuous and often violent period in African history. Working from an African perspective, students will explore events and historical processes that were often triggered by external forces. The course examines the ways in which historical themes—conquest, resistance, revolution, nationalism, identity politics—play out in an African context.

**3613 African Polities, States, and Empires**

(3-0) 3 hours credit.

Examination of political and social organization in African societies. The emphasis is on Africa prior to colonization. Topics will include regional trading networks, slavery, the range of political/governmental structures, cultural variation (including categories of gender and generation), and African relations with other parts of the world.

**3623 History of the Civil Rights Movement**

(3-0) 3 hours credit.

An examination of the struggle for civil rights in the United States from the conclusion of the Civil War to the present. While particular attention will be paid to the movement by Black southerners for equal rights, the course will also consider the struggle for civil rights conducted by other racial minorities in the United States.

- 3633 Early Modern England, 1485-1760**  
(3-0) 3 hours credit.  
English history in the Tudor, Stuart, and early Hanoverian eras emphasizing the growth of the national state, the overseas expansion of England, and preindustrial social and economic change.
- 3643 Modern Spain**  
(3-0) 3 hours credit.  
A study of 19th- and 20th-century Spain beginning with the origins of the Carlist movement, continuing with the rise and fall of the two Spanish Republics, the Civil War, and the advent of the Franco regime and concluding with the restoration of the monarchy.
- 3703 The Literature of the Civil War and Sectional Reconciliation**  
(3-0) 3 hours credit.  
An examination of the meaning and memory of the Civil War in American literature from 1865 to the present. Students will study how different authors interpreted and imagined America's bloodiest conflict and came to terms with the issues of citizenship, nationalism, and race. Different forms of literature, including autobiographies, fiction, fables, science fiction, and poetry will be read.
- 3723 The High Middle Ages and the Early Renaissance**  
(3-0) 3 hours credit.  
This course will examine the cultural, political, and social achievements of High Medieval Europe, with particular reference to France, Germany, and Italy. It will then focus on the great crisis of the 14th century and the emergence of a new, antimedieval culture in Early Renaissance Italy, to about 1450.
- 3733 Europe in the High Renaissance and Reformation**  
(3-0) 3 hours credit.  
This course will study the cultural, social, and political developments of Italy and Northern Europe in the time of the High Renaissance and the Reformation (c.a. 1450-1550).
- 3743 Imperial Russia**  
(3-0) 3 hours credit.  
The development of Russia from the accession of Peter the Great to the outbreak of the Russian Revolution.
- 3753 The Soviet Union and After**  
(3-0) 3 hours credit.  
The evolution of Russia from the revolution of 1917 to the present. A critical analysis of the construction and decline of a socialist society in the Soviet Union and the relationship of 20th-century Russia to the outside world.
- 3763 Russia before Peter the Great**  
(3-0) 3 hours credit.  
An examination of the Russian state-building process in the period from the Mongol Yoke to the formation of the Russian Empire, focusing on the development of autocracy, serfdom, and the state service system and examining Russia's relations with Europe and Asia.
- 3773 The Age of the Baroque**  
(3-0) 3 hours credit.  
This course will examine the formation of a Post-Renaissance culture in Europe, with the emergence of Mannerism and the Baroque, and the rise of science. It will also study the struggles for religious and political mastery on the continent from roughly the Peace of Augsburg (1555) to the end of the Thirty Years' War (1648), in the context of economic, social, and political change.
- 3783 The Age of the Enlightenment**  
(3-0) 3 hours credit.  
This course will examine the culture of Europe from the late 17th to the late 18th centuries, focusing on the Enlightenment in its historical context.

**3813 American Political History**

(3-0) 3 hours credit.

A study of American political history from the 18th century to the present. Deals with presidents and major national developments and may consider such topics as federalism, state politics, voting behavior, party systems, and political realignment.

**3823 History of American Foreign Relations**

(3-0) 3 hours credit.

An examination of the emergence of the United States as a world power and its subsequent activities in world affairs. The course places particular emphasis on the domestic roots of U.S. activity and on the factors shaping American perceptions of international affairs.

**3843 Migration and History**

(3-0) 3 hours credit.

What has caused people to migrate as individuals and as groups? To what extent has geographical mobility been a function of economic mobilization, political transformation, social upheaval, and/or technological revolution? How has the migratory process, in turn, affected the migrants themselves, both in their place of origin, and in the host society? Specific theme, regional focus, and time period may vary according to the instructor's choice of examples drawn from a variety of historical situations.

**3853 Public Life and Private Affairs**

(3-0) 3 hours credit.

The development of social distinctions between public and private has been one of the most important developments of capitalism and modernity. This course will examine how culture mediates between the public and the private, by bringing matters of the private into public view, as well as translating demands of the public for private understanding. It will consider these and other related issues on public and private affairs. The specific theme, regional focus, and time period may vary according to the instructor's choice of examples drawn from a variety of historical situations.

**3903 Modern Japan**

(3-0) 3 hours credit.

An overview of Japanese history since the end of the 16th century. Topics may include the Tokugawa period of early modern history, the Meiji transformation of state and society, the rise of Japanese militarism leading up to the Pacific War, the American occupation, and the subsequent rebirth of Japan into a global economic giant.

**3913 Late Imperial China**

(3-0) 3 hours credit.

Chinese history from the late Ming (ca. 1550) to the end of the Qing dynasty in the 1911 Revolution. The course will address the nature of imperial institutions, state-society interaction, economic developments, social and cultural changes, and China's relationship with the outside world.

**3923 China in Revolution**

(3-0) 3 hours credit.

A study of 20th-century China. The course will analyze and characterize the different phases of revolutionary changes in China and examine the sources of its revolutionary impulse.

**3933 Discovery of India**

(3-0) 3 hours credit.

This course introduces the earliest civilizations of the Indian subcontinent, including looking at major religious traditions such as Hinduism, Buddhism, Islam, and Jainism in historical perspective. A significant focus will be on the politics of knowledge, including examining how ancient India was "discovered" by Orientalist scholars, the importance of the past in the nationalist struggle, and the contemporary significance of ancient and medieval India for understanding modern politics in the regions.

**3943 Modern India, Pakistan, and Bangladesh**

(3-0) 3 hours credit.

In discussing modern South Asia, this course will question the extent to which South Asia is an outcome of its traditional structure (religion, caste hierarchy, joint families, village communities), and how much it is a product of global historical forces including colonialism, capitalism, feminism, and globalization. It examines politics and cultures of South Asia, with emphasis on the freedom struggle, the rise of the Congress and the Muslim League, the two-nation theory, partition and independence, the untouchables, and other contemporary issues including globalization and diaspora.

**3953 Cultures and Empires of the Silk Road, 700 BCE – 1480 CE**

(3-0) 3 hours credit.

An examination of the political, military, economic, and cultural interaction of nomadic and sedentary peoples along the northern Silk Road running from Western China through Central Asia to the Black Sea Steppe. Topics may range from the formation of the first powerful nomadic tribal confederations (Scythians, Sarmatians, Huns) in the Iron Age and culminating with the rise of the great Gunpowder Empires of the Ottomans, Timurids, and Moscow tsars in the 14th and 15th centuries.

**4113 American Intellectual History**

(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in history and diversity.

Examines ideas of intellectuals and scholars as well as ordinary people. Topics may include definitions of America, individualism, community, consequences of the frontier, education and art in a democracy, industrialization, the culture of consumption, racial and ethnic conflicts, and women's roles in society.

**4123 History of Science and Technology in America**

(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.

History of American science and technology from the 18th century to the present, with particular attention to the effects of social change on scientific enterprise and the influence of science on American culture.

**4133 History and the Public**

(3-0) 3 hours credit.

Investigation of the status, uses, and value of history in schools and universities, and in other spheres of life. Special interests include public and private roles of scholars and intellectuals, forms of public history, literary and cinematic uses of history, public policy applications, history as social and cultural criticism, and alternative conceptions of history and historians' work.

**4203 Families in American History**

(3-0) 3 hours credit.

An introduction to the history of family, and the roles relating to it, through a comparative social historical perspective. This course considers change and continuity in family structure and women's social relations from the colonial era to the present.

**4223 Environmental History of the United States**

(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.

An introductory survey of the interaction of human beings and the environment in the United States from early Indian occupancy to the present. Topics may include problems of ecological change, climate, energy, population, conservation, and human ideas and uses of nature.

**4403 Southern South America**

(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.

A study of the nations of Argentina, Chile, Paraguay, and Uruguay, focusing on their legacies of exploration, conquest, colonization, and independence, with major emphases on the national period. Relationships between these nations and the United States will be examined.

**4911,3 Independent Study**

1 or 3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Department Chair, and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4923 Issues in History**

(3-0) 3 hours credit. Prerequisite: Upper-class standing or consent of instructor.

Coverage of topics of current interest in the field of history. May be repeated for credit when topics vary, but not more than 6 semester credit hours may be applied to a bachelor's degree.

**4933 Internship in History**

3 hours credit. Prerequisites: HIS 2003 and consent of Department Chair.

Supervised experience relevant to history within selected community organizations. A maximum of 6 semester credit hours may be earned through Internship in History. Must be taken on a credit/no-credit basis.

**4953 Special Studies in History**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4973 Seminar in History**

(3-0) 3 hours credit. Prerequisites: HIS 2003 and consent of instructor.

The opportunity for an intensive study of a selected topic. Primary emphasis on supervised research on various aspects of the topic. Enrollment limited to juniors and seniors majoring in history.

**4993 Honors Thesis**

3 hours credit. Prerequisites: Enrollment limited to candidates for Honors in History during their last two semesters; completion of honors examination and consent of the Honors College.

Supervised research and preparation of an honors thesis. May be repeated once with advisor's approval.

**Minor in Women and Gender Studies**

The Minor in Women and Gender Studies (WGS) provides students with the opportunity to examine the experience of women and men from an interdisciplinary perspective. Emphasis is placed on pursuing an understanding of women and issues of gender in diverse cultures and across time.

All students pursuing a Minor in Women and Gender Studies (WGS) are required to complete 18 semester credit hours.

## A. 6 semester credit hours of required courses:

WGS	2013	Introduction to Women and Gender Studies
WGS	4623	Feminist Theories

## B. 12 additional semester credit hours, in at least two disciplines other than the student's major, selected from the following:

AMS	3443	Studies in Gender and Sexuality
ANT	3103	Social Organization
ANT	3603	Sex, Gender, and Culture
BBL	2013	Introduction to Chicano(a) Studies
BBL	2023	Latino Cultural Expressions
BBL	3023	Mexican American Culture
BBL	3043	Psychosocial Processes in Bicultural-Bilingual Environments
BIO	2003	Biology of Human Reproduction
CLA	3123	Cultural Issues in Classical Antiquity

CRJ	4113	Intimate and Family Violence
CRJ	4313	Minorities and Women in the Criminal Justice System
CRJ	4853	Sex Crimes and the Law
ENG	3133	Women and Literature
ENG	4393	Feminist Theory of Literature
HIS	3043	History of Women in the United States: Pre-Columbus to 1890
HIS	3053	History of Women in the United States: Since 1890
HIS	3133	Themes in the Social History of the United States
HIS	4203	Families in American History
HTH	4523	Understanding Human Sexuality
IDS	2113	Society and Social Issues
LNG	3843	Gender Issues in Language
POL	3163	Introduction to Feminist Theory
POL	3183	Women in Politics
PSY	3303	Psychological Perspectives on Gender
PSY	4193	Relationships
SOC	3163	Marriage and the Family
SOC	3283	Poverty
SOC	3293	Gender Roles
SOC	3413	Mexican American Family
SOC	4183	Theories of Identity
SOC	4443	Race/Ethnicity, Class, Gender, and Sexuality
WGS	4913	Independent Study in Women and Gender Studies
WGS	4933	Internship in Women and Gender Studies

Note: Please consult the Women's Studies Institute for a complete list of courses that fulfill the WGS minor.

To declare a Minor in Women and Gender Studies, obtain advice, obtain lists of relevant courses, or seek approval of substitutions for course requirements, students should consult the undergraduate advisor in the College of Liberal and Fine Arts Advising Center.

## COURSE DESCRIPTIONS WOMEN AND GENDER STUDIES (WGS)

### **2013 Introduction to Women and Gender Studies**

(3-0) 3 hours credit.

This course is an introduction to the study of women and gender using interdisciplinary and cross-cultural approaches. Designed to introduce students to the intellectual frameworks that shape thoughts about women and men. Topics may include sexuality, violence against women, feminism, and diversity in terms of race, ethnicity, age, and sexual orientation.

### **4623 Feminist Theories**

(3-0) 3 hours credit. Prerequisite: WGS 2013.

This course will introduce multidisciplinary explorations of theorists' attempts to describe, explain, and critique social institutions. Students will examine theoretical positions on gender and women in the study of the humanities and/or social sciences. Topics may include the ways in which women have been represented in cultural production with special consideration of race, ethnicity, class, sexuality, and nationalism.

### **4853 Special Topics in Women Writers**

(3-0) 3 hours credit.

This course examines women's texts with special attention to understanding gender as a category of analysis. Variable topics may include women in the sciences, women and technology, literary and cultural representations, women and business, historical and political change, questions of class and nation, queer or transgender theories, or medical and health experiences. This class may emphasize the importance of intersecting categories of analysis including gender, race, ethnicity, and sexuality. May be repeated for credit when topics vary.

**4913 Independent Study in Women and Gender Studies**

3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Department Chair, and Dean of the College with which the instructor is affiliated.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. A maximum of 3 semester credit hours of independent study in women and gender studies may be applied to the Minor in Women and Gender Studies.

**4933 Internship in Women and Gender Studies**

3 hours credit. Prerequisite: Approval of Department Chair.

Supervised experience relevant to women and gender issues may be earned within selected community organizations. A maximum of 3 semester credit hours may be applied to the Minor in Women and Gender Studies. Must be taken on a credit/no-credit basis.

## DEPARTMENT OF MODERN LANGUAGES AND LITERATURES

The Department of Modern Languages and Literatures offers majors in French, German, and Spanish designed to develop the student's specialized knowledge of culture, literature, and language. The department also offers minors in French, German, Russian, Spanish, Comparative Literature, Foreign Languages, and Linguistics. The minors give students the opportunity to refine language skills, develop linguistic awareness, and acquire knowledge of a foreign culture and/or literature. Skills-development courses, which facilitate speaking, reading, writing, and understanding of a foreign language, are offered in these languages as well as in Arabic, Chinese, Italian, and Japanese. Courses in comparative studies in the humanities relate literatures to the other arts and general currents of culture and humanistic thought, while coursework in linguistics focuses on general concepts of linguistic structure and meaning and relates language development to other areas of human understanding. Additional study abroad is also encouraged. The Department also offers courses in Media Studies, which allow students to put into practice their theoretical studies in the humanities.

### DEPARTMENT HONORS

A student whose grade point average in courses taken at UTSA is at least 3.0, whose grade point average in upper-division courses in one of the fields offered as a major in the department is at least 3.5, and who has completed 18 semester credit hours at the upper-division level in the major (24 hours for Spanish) may petition the undergraduate faculty advisor to enroll in the appropriate honors course (SPN, FRN, or GER 4993 Honors Research). If the student maintains the minimum grade point averages upon completion of the course, the Department Honors Committee will evaluate the project the student completed in the honors course and determine whether he or she will be awarded Department Honors.

### Bachelor of Arts Degree in French

The minimum number of semester credit hours required for the Bachelor of Arts degree in French, including the hours in the Core Curriculum requirements, is 120. Thirty-nine of the total semester credit hours required for the degree must be at the upper-division level. Students seeking teacher certification should consult the College of Education and Human Development Advising and Certification Center for information.

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in French must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Economics</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) FRN 2013 or FRN 2023 will satisfy this core requirement.</p>

**Degree Requirements**

A. 24 semester credit hours in the major, all of which must be at the upper-division level, as follows:

FRN 3023 Advanced Language Skills  
FRN 3413 Survey of French Literature and Culture

18 additional semester credit hours in French or French-related topics (including CSH and FL) chosen in consultation with the student's advisor

B. 12 semester credit hours of support work, as follows:

1. 6 semester credit hours selected from among the following courses:

CSH 1103 Literary Masterpieces of Western Culture I  
CSH 1113 Literary Masterpieces of Western Culture II  
CSH 2313 Introduction to Literary Studies  
LNG 3813 Introduction to Linguistics  
LNG 3833 Sociolinguistics

2. Hours remaining to make the total of 12 selected from section B1 or courses in related areas in consultation with the student's advisor for the major.

C. 42 semester credit hours of electives

## Minor in French

All students pursuing the Minor in French must complete 18 semester credit hours at the 2000 level and above.

A. 9 semester credit hours of required language skill courses:

FRN	2013	Intermediate French I
FRN	2023	Intermediate French II
FRN	3023	Advanced Language Skills

B. 9 additional semester credit hours of French or French-related topics (including CSH and FL), 6 hours of which must be at the upper-division level, chosen in consultation with the advisor for the Minor in French

### COURSE DESCRIPTIONS FRENCH (FRN)

- 1014 Elementary French I**  
(3-2) 4 hours credit.  
Fundamentals of French offering the opportunity to develop listening, speaking, reading, and writing skills. Emphasis on listening and speaking. Introduction to French culture. [TCCN: FREN 1411.]
- 1024 Elementary French II**  
(3-2) 4 hours credit. Prerequisite: FRN 1014, the equivalent, an appropriate placement test score, or consent of instructor.  
Fundamentals of French offering the opportunity to develop listening, speaking, reading, and writing skills. Further study of French culture. [TCCN: FREN 1412.]
- 2013 Intermediate French I**  
(3-1) 3 hours credit. Prerequisite: FRN 1024, the equivalent, an appropriate placement test score, or consent of instructor.  
Continued opportunity to develop listening, reading, speaking, and writing skills. Grammar review and further study of French culture. [TCCN: FREN 2311.]
- 2023 Intermediate French II**  
(3-1) 3 hours credit. Prerequisite: FRN 2013, the equivalent, an appropriate placement test score, or consent of instructor.  
Continued opportunity to develop listening, reading, speaking, and writing skills. Grammar review and further study of French culture. [TCCN: FREN 2312.]
- 2333 French Literature in English Translation**  
(3-0) 3 hours credit.  
Major works of French literature across time, genres, and movements. May not be applied to a major in French. (Formerly FRN 3333. Credit cannot be earned for both FRN 2333 and FRN 3333.)
- 3023 Advanced Language Skills**  
(3-0) 3 hours credit. Prerequisite: FRN 2023 or consent of instructor.  
Development of oral and written language skills using contemporary readings, media, and oral discourse. Emphasis on increasing fluency through vocabulary expansion activities and selective grammar review. May be repeated for credit when topics vary.
- 3053 Business French**  
(3-0) 3 hours credit. Prerequisite: FRN 2023 or consent of instructor.  
Introduction to the basic context of the French economy and business world, with emphasis on development of practical language skills to deal with matters such as commercial correspondence, documents, reports, telecommunications, and conferences. Attention to vocabulary and style specific to French business. Practice in translation on business-related topics.

**3413 Survey of French Literature and Culture**

(3-0) 3 hours credit.

Selections from French literature and culture studied as reflections and interpretations of central movements in French cultural history. Introduction to concepts of style, genre, and period. May be repeated for credit when topics vary.

**4003 Topics in French Literature**

(3-0) 3 hours credit.

Focus on a specific area of French literature, from the medieval period through the 21st century. Selected texts are studied as examples of representative movements, genres or authors in French literary history. May be repeated for credit when topics vary.

**4213 Topics in French Culture and Linguistics**

(3-0) 3 hours credit.

Selected topics of cultural history or linguistics from medieval period through the 21st century. May be repeated for credit when topics vary.

**4913 Independent Study**

3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, the Department Chair, and the Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4933 Internship in French**

3 hours credit. Prerequisite: Permission of Department Chair.

Supervised experience in a setting that provides the opportunity to integrate theory and practice in language usage. May be repeated once for credit.

**4953 Special Studies in French**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4993 Honors Research**

3 hours credit. Prerequisite: Consent of the undergraduate advisor.

Supervised research and preparation of an honors thesis. May be repeated once for credit, with approval.

## **Bachelor of Arts Degree in German**

The minimum number of semester credit hours required for the Bachelor of Arts degree in German, including the hours in the Core Curriculum requirements, is 120. Thirty-nine of the total semester credit hours required for the degree must be at the upper-division level. Students seeking teacher certification should consult the College of Education and Human Development Advising and Certification Center for information.

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in German must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<i>Mathematics</i> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <i>Science</i> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<i>United States History and Diversity</i> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <i>Political Studies</i> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <i>Social and Behavioral Sciences</i> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <i>Economics</i> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain III: Literature and the Arts</b>	<i>Literature</i> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <i>The Arts</i> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) GER 2013 or GER 2023 will satisfy this core requirement.

### Degree Requirements

A. 24 semester credit hours in the major, all of which must be at the upper-division level, as follows:

GER 3023 Advanced Language Skills  
GER 3413 Survey of German Literature and Culture

18 additional semester credit hours in German or German-related topics (including CSH and FL) chosen in consultation with the student's advisor

B. 12 semester credit hours of support work, as follows:

1. At least 6 semester credit hours selected from the following:

CSH 1103 Literary Masterpieces of Western Culture I  
CSH 1113 Literary Masterpieces of Western Culture II  
CSH 2313 Introduction to Literary Studies

- LNG 3813 Introduction to Linguistics  
or  
LNG 3833 Sociolinguistics

2. Hours remaining to make the total of 12 selected from section B1 or courses in related areas in consultation with the student's advisor in the major

- C. 42 semester credit hours of electives

### **Minor in German**

All students pursuing the Minor in German must complete 18 semester credit hours at the 2000 level and above.

- A. 9 semester credit hours of required language skill courses:

- GER 2013 Intermediate German I  
GER 2023 Intermediate German II  
GER 3023 Advanced Language Skills

- B. 9 additional semester credit hours of German or German-related courses (including CSH and FL), 6 semester credit hours of which must be at the upper-division level, chosen in consultation with the advisor for the Minor in German

## **COURSE DESCRIPTIONS GERMAN (GER)**

### **1014 Elementary German I**

(3-2) 4 hours credit.

Fundamentals of German offering the opportunity to develop listening, reading, speaking, and writing skills. Introduction to German culture. [TCCN: GERM 1411.]

### **1024 Elementary German II**

(3-2) 4 hours credit. Prerequisite: GER 1014, the equivalent, an appropriate placement test score, or consent of instructor.

Fundamentals of German offering the opportunity to further develop abilities in listening, reading, speaking, and writing skills. Further exposure to German culture. [TCCN: GERM 1412.]

### **2013 Intermediate German I**

(3-1) 3 hours credit. Prerequisite: GER 1024, the equivalent, an appropriate placement test score, or consent of instructor.

Continued opportunity to develop listening, reading, speaking, and writing skills. Continued exposure to German culture. [TCCN: GERM 2311.]

### **2023 Intermediate German II**

(3-1) 3 hours credit. Prerequisite: GER 2013, the equivalent, an appropriate placement test score, or consent of instructor.

Continued opportunity to develop listening, reading, speaking, and writing skills. Continued exposure to German culture. [TCCN: GERM 2312.]

### **2333 German Literature in English Translation**

(3-0) 3 hours credit.

Major works of German literature across time, genres, and movements. May not be applied to a major in German. (Formerly GER 3333. Credit cannot be earned for both GER 2333 and GER 3333.)

- 3023 Advanced Language Skills**  
(3-0) 3 hours credit. Prerequisite: GER 2023 or consent of instructor.  
Development of oral and written language skills using contemporary readings, media, and oral discourse. Emphasis on increasing fluency through vocabulary expansion activities and selective grammar review. May be repeated for credit when topics vary.
- 3413 Survey of German Literature and Culture**  
(3-0) 3 hours credit.  
Selected works from the medieval period to the 21st century are studied as examples of central movements in German culture and literary history. The course presents the shape of German civilization, emphasizing the major periods, styles, movements, and generations. May be repeated for credit when topics vary.
- 4003 Topics in German Literature**  
(3-0) 3 hours credit.  
Focus on a specific area of German literature, from the medieval period through the 21st century. Selected texts are studied as examples of representative movements, genres, or authors in German literary history. May be repeated for credit when topics vary.
- 4213 Topics in German Culture and Linguistics**  
(3-0) 3 hours credit.  
Focuses on selected topics of cultural history, such as Vienna 1890-1914, Expressionism, contemporary cultural/political developments, or on a linguistic topic. May be repeated for credit when topics vary.
- 4913 Independent Study**  
3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, the Department Chair, and the Dean of the College in which the course is offered.  
Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree. No more than 6 semester credit hours of GER 4913 and/or GER 4993 may be applied to the major in German.
- 4933 Internship in German**  
3 hours credit. Prerequisite: Permission of Department Chair.  
Supervised experience in a setting that provides the opportunity to integrate theory and practice in language usage. May be repeated once for credit.
- 4953 Special Studies in German**  
(3-0) 3 hours credit. Prerequisite: Consent of instructor.  
An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when the topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.
- 4993 Honors Research**  
3 hours credit. Prerequisite: Consent of the undergraduate advisor.  
Supervised research and preparation of an honors thesis. May be repeated once for credit, with approval. No more than 6 semester credit hours of GER 4993 and/or GER 4913 may be applied to the major in German.

## Bachelor of Arts Degree in Spanish

The minimum number of semester credit hours required for this degree, including the hours in the Core Curriculum requirements, is 120. Thirty-nine of the total semester credit hours required for the degree must be at the upper-division level.

Prerequisites for most upper-division Spanish courses may include SPN 3063, the appropriate proficiency or placement test score, or consent of instructor.

Students seeking teacher certification should consult the College of Education and Human Development Advising and Certification Center for information.

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts (B.A.) degree in Spanish must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) SPN 2003, 2013, 2023, 2103, 2513, or 2523 will satisfy this core requirement.

## Degree Requirements

A. 39 semester credit hours in the major, all of which must be at the upper-division level, as follows:

1. 12 semester credit hours of required language courses (recommended for early completion):

SPN	3033	Oral Communication Skills
		or
SPN	4003	Advanced Language Skills (with oral communication topic)
SPN	3043	Advanced Reading
SPN	3063	Grammar and Composition
		or
SPN	4003	Advanced Language Skills (with written communication topic)

An additional 3 semester credit hours in SPN 4003 Advanced Language Skills

2. 3 semester credit hours selected from the following:

SPN	3013	Spanish Phonetics and Pronunciation
SPN	3113	Linguistic Structures of Spanish

3. 9 semester credit hours selected from the following:

SPN	3413	The Literature of Spain from the Middle Ages to 1700
SPN	3423	The Literature of Spain from 1700 to the present
SPN	3463	Latin American Literature to Modernism
SPN	3473	Latin American Literature since Modernism
SPN	4203	Topics in Hispanic Literatures

4. 6 semester credit hours selected from the following:

SPN	3613	Spanish Culture and Civilization
SPN	3623	Latin American Culture and Civilization
SPN	4303	Topics in Hispanic Cultures

5. 9 semester credit hours of Spanish electives, 3 semester credit hours of which must be at the 4000 level

B. 12 additional semester credit hours of coursework in a single area or a combination, selected from the following in consultation with the undergraduate advisor: literature, culture, linguistics, comparative studies in the humanities, foreign language (FL: translation, cross-cultural communication, study abroad etc.), another foreign language, history, anthropology, art, or other related areas.

C. 27 semester credit hours of electives

## Minor in Spanish

All students pursuing the Minor in Spanish must complete 18 semester credit hours.

A. 15 semester credit hours of required language skill courses:

SPN	2023	Intermediate Spanish II
		or
SPN	2006	Intermediate Spanish-Accelerated
SPN	2103	Oral and Written Expression

SPN	3033	Oral Communication Skills or
SPN	4003	Advanced Language Skills (with oral communication topic)
SPN	3043	Advanced Reading
SPN	3063	Grammar and Composition or
SPN	4003	Advanced Language Skills (with written communication topic)

B. 3 semester credit hours in other upper-division Spanish chosen in consultation with the advisor

## COURSE DESCRIPTIONS SPANISH (SPN)

### **1008 Elementary Spanish-Accelerated**

(6-4) 8 hours credit.

A one-semester course offering the opportunity to develop listening, speaking, reading, and writing skills. Emphasis on listening and speaking. Introduction to Hispanic culture. (Credit for SPN 1008 is equivalent to credit for both SPN 1014 and SPN 1024.)

### **1014 Elementary Spanish I**

(3-2) 4 hours credit.

Fundamentals of Spanish, offering the opportunity to develop listening, speaking, reading, and writing skills. Emphasis on listening and speaking. Introduction to Hispanic culture. [TCCN: SPAN 1411.]

### **1024 Elementary Spanish II**

(3-2) 4 hours credit. Prerequisite: SPN 1014, the equivalent, or an appropriate placement test score.

Fundamentals of Spanish offering the opportunity to develop listening, speaking, reading, and writing skills. Emphasis on listening and speaking. Further study of Hispanic culture. [TCCN: SPAN 1412.]

### **2003 Spanish for Elementary Education**

(3-1) 3 hours credit. Prerequisite: 4-8 hours at the 1000 level or the equivalent, appropriate placement score, or consent of instructor.

Intermediate Spanish, emphasis on listening, speaking, reading and writing, with grammar and vocabulary to support language use. Hispanic culture focus. Task-based instruction focusing on basic face-to-face interactions with Spanish-speaking parents and community, classroom interaction with Spanish-speaking students, and other relevant tasks.

### **2006 Intermediate Spanish-Accelerated**

(6-2) 6 hours credit. Prerequisite: SPN 1008, SPN 1024, the equivalent, or an appropriate placement test score.

A one-semester course offering continued opportunity to develop listening, speaking, reading, and writing skills. Includes grammar and further study of Hispanic culture. (Credit for SPN 2006 is equivalent to credit for both SPN 2013 and SPN 2023.)

### **2013 Intermediate Spanish I**

(3-1) 3 hours credit. Prerequisite: SPN 1008, SPN 1024, the equivalent, or an appropriate placement test score.

Continued opportunity to develop listening, speaking, reading, and writing skills. Grammar and further study of Hispanic culture. [TCCN: SPAN 2311.]

### **2023 Intermediate Spanish II**

(3-1) 3 hours credit. Prerequisite: SPN 2013, the equivalent, or an appropriate placement test score.

Continued opportunity to develop listening, speaking, reading, and writing skills. Grammar review and further study of Hispanic culture. [TCCN: SPAN 2312.]

- 2103 Oral and Written Expression**  
(3-1) 3 hours credit. Prerequisite: SPN 2023, the equivalent, or an appropriate placement test score.  
Conversation, reading, and grammar review toward building literacy skills. Opportunities for composition and oral communication for a variety of situations and topics.
- 2333 Hispanic Literature in English Translation**  
(3-0) 3 hours credit. Prerequisite: WRC 1013 or the equivalent.  
Major works in Hispanic literatures: themes, genres, and movements. May not be applied to a major in Spanish. (Formerly SPN 3333. Credit cannot be earned for both SPN 2333 and SPN 3333.)
- 2513 Spanish for Special Purposes**  
(3-1) 3 hours credit. Prerequisite: SPN 2013, the equivalent, or an appropriate placement test score.  
Foreign language communication and cross-cultural skills relevant to one or more of the following areas: business, health care, law, education, science, southwest Spanish, Hispanic literature, or technology. May be repeated for credit when topics vary. [TCCN: SPAN 2316.]
- 2523 Hispanic Culture and Communication**  
(3-1) 3 hours credit. Prerequisite: SPN 2013, the equivalent, or an appropriate placement test score.  
A brief review of history, geography, worldview, and customs common in Latin America and Spain, with particular emphasis on Mexico and U.S. Hispanic culture. Use of some target culture source materials. Continued opportunity to develop oral and written communication in Spanish and to understand mainstream U.S. Hispanic cross-cultural communication. [TCCN: SPAN 2324.]
- 3013 Spanish Phonetics and Pronunciation**  
(3-1) 3 hours credit. Prerequisite: SPN 2023, the equivalent, or consent of instructor.  
Offers the opportunity for study of the sound system of Latin American Spanish. Activities may include pronunciation exercises, exercises in sound discrimination and transcription, and articulatory description of various dialects of Spanish.
- 3033 Oral Communication Skills**  
(3-0) 3 hours credit. Prerequisite: SPN 2023, the equivalent, or consent of instructor.  
Offers the opportunity for further development of speaking skills through oral activities directed at the Advanced and Superior Level on the ACTFL-ETS proficiency scale. May be repeated once for credit if exit proficiency level is less than 2+.
- 3043 Advanced Reading**  
(3-0) 3 hours credit. Prerequisite: SPN 3063 or consent of instructor.  
Extensive reading practice, comprehension strategies, and vocabulary building with material from a variety of disciplines and different types of texts.
- 3063 Grammar and Composition**  
(3-0) 3 hours credit. Prerequisite: SPN 2023 or the equivalent.  
Extensive review of fundamental grammar with vocabulary building. Development of writing skills and style through activities directed at the advanced level on the ACTFL-ETS proficiency scale. Consideration of usage and differences between written and spoken language.
- 3113 Linguistic Structures of Spanish**  
(3-0) 3 hours credit. Prerequisite: SPN 3063 or consent of instructor.  
Offers the opportunity for application to Spanish of the basic principles of analysis and description of language structure. Attention given to structural regularities at the levels of word formation, syntax, and semantics.
- 3153 Spanish for the Business/Management Fields**  
(3-0) 3 hours credit. Prerequisite: SPN 2023 or the equivalent.  
Foreign language skills relevant to careers in business fields. Emphasis on reading skills and simple conversations on business topics. Exposure to terminology from contracts, financial statements, business law, marketing, and banking. Intended for students with some background in Spanish. May be repeated once for credit when topics vary.

- 3413 The Literature of Spain from the Middle Ages to 1700**  
(3-0) 3 hours credit. Prerequisite: SPN 3043 or consent of instructor.  
Spanish literature from the Middle Ages to 1700. Readings of selections and complete works. Practice in critical analysis through papers and examinations.
- 3423 The Literature of Spain from 1700 to the Present**  
(3-0) 3 hours credit. Prerequisite: SPN 3043 or consent of instructor.  
Spanish literature from 1700 to the present. Readings of selections and complete works. Practice in critical analysis through papers and examinations.
- 3463 Latin American Literature to Modernism**  
(3-0) 3 hours credit. Prerequisite: SPN 3043 or consent of instructor.  
Latin American literature from pre-Columbian times to Modernism. Practice in critical analysis through papers and examinations.
- 3473 Latin American Literature since Modernism**  
(3-0) 3 hours credit. Prerequisite: SPN 3043 or consent of instructor.  
Latin American literature from Modernism to the present. Practice in critical analysis through papers and examinations.
- 3493 Mexican American Literature**  
(3-0) 3 hours credit. Prerequisite: SPN 2103, SPN 3063, or consent of instructor.  
Readings and discussion of works by Mexican American writers. The expression through poetry, the novel, the short story, and the theater of the Mexican American cultural experience as well as universal themes and literary concerns. Selections from popular literature, including the oral tradition. May be repeated for credit when topics vary.
- 3613 Spanish Culture and Civilization**  
(3-0) 3 hours credit. Prerequisite: SPN 3043.  
Emergence of the Spanish peoples from pre-Roman times to the present: history, cultural expression, myths, values, and worldview.
- 3623 Latin American Culture and Civilization**  
(3-0) 3 hours credit. Prerequisite: SPN 3043.  
The cultural life of the respective geographic regions and social strata of Latin America from before the Conquest to the present, as reflected in and interpreted by its literature and arts.
- 4003 Advanced Language Skills**  
(3-0) 3 hours credit. Prerequisite: SPN 3033, SPN 3043, or SPN 3063 as appropriate, or consent of instructor.  
Development of advanced skills in oral and written communication including such areas as grammar composition, creative writing, oral communication, and applications of language study to business and other areas. May be repeated for credit when topics vary.
- 4113 Topics in Spanish Linguistics**  
(3-0) 3 hours credit. Prerequisite: SPN 3113 or consent of instructor.  
Advanced study and applications of topics in Spanish linguistics. May include one or more of the following: phonology, morphology, syntax, semantics, dialectology, language variability, and history of Spanish.
- 4123 The Spanish of the Southwest**  
(3-0) 3 hours credit. Prerequisite: SPN 3013, SPN 3113, or consent of instructor.  
The analysis of the Spanish language as used by Mexican Americans in the southwestern United States, from a linguistic and sociolinguistic perspective. Particular attention given to the Spanish spoken in Texas.
- 4203 Topics in Hispanic Literatures**  
(3-0) 3 hours credit. Prerequisite: An upper-division course in literature taught in Spanish or consent of instructor.  
An intensive study of an area of Spanish or Spanish American literatures. May be repeated for credit when topics vary.

**4303 Topics in Hispanic Cultures**

(3-0) 3 hours credit. Prerequisite: SPN 3043 or consent of instructor.

An intensive study of an area of Hispanic cultures. May be repeated for credit when topics vary.

**4913 Independent Study**

3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, the Department Chair, and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree. No more than 6 semester credit hours of SPN 4913 and/or SPN 4993 may be applied to the major in Spanish.

**4933 Internship in Spanish**

3 hours credit. Prerequisite: Permission of Department Chair.

Supervised experience in a setting that provides the opportunity to integrate theory and practice in language usage. May be repeated once for credit.

**4953 Special Studies in Spanish**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when the topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4993 Honors Research**

3 hours credit. Prerequisite: Consent of the undergraduate advisor.

Supervised research and preparation of an honors thesis. May be repeated once for credit with approval. No more than 6 semester credit hours of SPN 4993 and/or SPN 4913 may be applied to the major in Spanish.

**Minor in Comparative Literature**

The Minor in Comparative Literature offers an opportunity to study texts in a manner that transcends national and linguistic boundaries. Comparative literature enables students, through their majors, to develop a solid grounding in one particular tradition (e.g., English, Spanish, French) or one discipline (e.g., history, music) while also embracing a broader perspective. A student minoring in comparative literature may wish to pursue graduate work in comparative literature or in a specific national literary tradition or to pursue a career in translation, teaching, publishing, or writing. A Minor in Comparative Literature discourages parochialism and fosters the sophistication that a liberal arts degree is designed to recognize.

All students pursuing the Minor in Comparative Literature must complete 18 semester credit hours.

- A. 12 semester credit hours of upper-division literature courses, selected from at least two of the following disciplines: classics, English, French, German, Italian, Russian, or Spanish
- B. 6 semester credit hours of upper-division courses in comparative studies in the humanities:
  1. CSH3013 Theory and Practice of Comparative Literature (3 hours)
  2. 3 semester credit hours of an additional upper-division CSH course

## COURSE DESCRIPTIONS COMPARATIVE STUDIES IN THE HUMANITIES (CSH)

**1103 Literary Masterpieces of Western Culture I**

(3-0) 3 hours credit.

Representative masterworks of Western literature in translation. An examination of major texts from antiquity to the Renaissance that have shaped and expressed Western cultural traditions. Situation of literary works in the context of the development of civilization.

**1113 Literary Masterpieces of Western Culture II**

(3-0) 3 hours credit.

Representative masterworks of Western literature in translation. An examination of major texts from the Renaissance to the present that have shaped and expressed Western cultural traditions. Situation of literary works in the context of the development of civilization.

**1203 Introduction to Hispanic Cultures**

(3-0) 3 hours credit.

An overview of the cultures of Spain, Spanish America, and Hispanic groups in the United States as revealed through their literatures and other forms of expression. Exploration of the unifying and diversifying elements in Hispanic civilization from its beginnings. All readings from English language or translated materials. May not be used as support work for the Spanish major.

**1213 Topics in World Cultures**

(3-0) 3 hours credit.

Introductory overview of a specific culture or cultural area as revealed through the diversity of its heritage. Includes topics such as Hispanic, Francophone, German, Slavic, Judaic, Latin, Oriental, or African culture. All readings are from English language or translated materials. May be repeated for credit when topics vary. [TCCN: HUMA 2323.]

**2113 The Foreign Film**

(3-0) 3 hours credit.

An introduction to film as art and cultural expression. Emphasis on cinematic techniques, national traditions, genres, and the distinctive features of film as a humanistic medium. Films drawn from Latin America, Asia, Africa, and/or Europe. May be repeated for credit when topics vary.

**2313 Introduction to Literary Studies**

(3-0) 3 hours credit. Prerequisite: WRC 1023 or the equivalent.

Offers the opportunity to develop an awareness of literature and the skills with which to approach and understand it. Examination of individual national traditions and the interrelationship of all literary traditions. Emphasis on the nature of genre, period, and style. (Formerly CSH 3313. Credit cannot be earned for both CSH 2313 and CSH 3313.)

**3013 Theory and Practice of Comparative Literature**

(3-0) 3 hours credit. Prerequisite: WRC 1023 or the equivalent.

Introduction to history and nature of the discipline. Issues of translation and transmission, periods and movements, genres and forms, motifs and types, and literature and the other arts.

**3813 Topics in Comparative Studies in the Humanities**

(3-0) 3 hours credit. Prerequisite: WRC 1023 or the equivalent.

Comparative and/or interdisciplinary investigation of humanistic fields of study, including literature, culture, film, and other arts. Topics may include study of a genre, period, or motif, comparison of authors or directors. May be repeated for credit when topics vary.

**Minor in Foreign Languages**

The Minor in Foreign Languages offers an opportunity to increase proficiency in reading, writing, speaking, and listening skills in a foreign language. The minor will lead to the acquisition of metalinguistic skills and an enhanced understanding of the target culture and its orientation to world communication.

All students pursuing the Minor in Foreign Languages must complete 18 semester credit hours at the 2000 level and above.

- A. 6 semester credit hours of language skill courses in the same language at the 2000 level or above.
- B. 12 additional semester credit hours of language and linguistics courses (including FL) in the department, 9 hours of which must be at the upper-division level.

## COURSE DESCRIPTIONS FOREIGN LANGUAGES (FL)

### **1034,8 Beginning Language Study Abroad**

4 or 8 hours credit. Prerequisite: Consent of instructor.

Opportunity to begin developing oral and written communication skills in the target language, along with enhanced comprehension skills in listening and reading. Linguistic and cultural immersion. May be repeated up to 8 semester credit hours in each language. Offered in Spanish, German, French, Italian, Japanese, and Russian.

### **1044 Individualized Instruction in Basic Language**

4 hours credit. Prerequisite: Consent of instructor.

Opportunity to develop basic oral and written communication skills in the target language, along with enhanced comprehension skills in listening and reading. Generally restricted to special projects or languages not regularly offered as organized classes. May be repeated up to 8 semester credit hours in each language.

### **2023 Culture and Communication in a Foreign Language**

(3-0) 3 hours credit.

A brief overview of history, geography, worldview, and customs common in the target culture. Use of some target culture materials. Opportunity to develop basic oral and written communication skills in the language. May be repeated for credit when language varies.

### **2033,6 Intermediate Language Study Abroad**

3 or 6 hours credit. Prerequisites: Consent of instructor and 1008, 1024, or the equivalent in the selected foreign language.

Opportunity to develop intermediate-level oral and written communication skills in the target language, along with increased comprehension skills in listening and reading. Linguistic and cultural immersion. May be repeated up to 6 semester credit hours in each language. Offered in Spanish, German, French, Italian, Japanese, and Russian.

### **2043 Individualized Instruction in Intermediate-Level Language**

3 hours credit. Prerequisites: Consent of instructor and 1008, 1024, or the equivalent in the selected foreign language. Opportunity to develop intermediate-level oral and written communication skills in the target language, along with increased comprehension skills in listening and reading. Generally restricted to special projects or languages not regularly offered as organized classes. May be repeated up to 6 semester credit hours in each language.

### **3003 Introduction to Translation**

(3-0) 3 hours credit. Prerequisites: At least four courses of any single foreign language.

Principles of translation with practice in translating brief documents of a general nature. May be repeated for credit when language varies. (Formerly FL 2013. Credit cannot be earned for both FL 3003 and FL 2013.)

### **3013 Translation for the Language Specialist**

(3-0) 3 hours credit. Prerequisite: At least one course at the 3000 level in the selected foreign language.

The language-related and cultural issues involved in translation and interpretation. Practice in translating documents from selected professional areas: business, health care, law, technology, or the arts. May be repeated for credit when topics/languages vary.

### **3033,6 Advanced Language Study Abroad**

3 or 6 hours credit. Prerequisites: Consent of instructor and 2006, 2023, or the equivalent in the selected foreign language.

Opportunity to develop advanced-level oral and written communication skills in the target language, along with enhanced comprehension skills in listening and reading. Linguistic and cultural immersion. May be repeated up to 6 semester credit hours in each language. Offered in Spanish, German, French, Italian, Japanese, and Russian.

**3043 Individualized Instruction in Advanced-Level Language**

3 hours credit. Prerequisites: Consent of instructor and 2006, 2023, or the equivalent in the selected foreign language. Opportunity to develop advanced-level oral and written communication skills in the target language, along with enhanced comprehension skills in listening and reading. Generally restricted to special projects or languages not regularly offered as organized classes. May be repeated up to 6 semester credit hours in each language.

**4013 Cross-Cultural Communication and Foreign Languages**

(3-0) 3 hours credit.

Study of cross-cultural communication research in specific language communities and its application to effective interaction with speakers of a variety of foreign languages. Selected applications and comparisons according to sociolinguistic norms, semantic variation, and nonverbal language, relevant to the most numerous language communities in the United States and abroad. Material from psychology, sociology, communication, and other related fields.

**4243 Foreign Language Instruction**

(3-0) 3 hours credit. Prerequisite: 2023 or an equivalent in a foreign language.

A study of second-language-acquisition theories. Emphasis on instructional methodology as it relates to foreign languages and cultures.

**Minor in Linguistics**

The Minor in Linguistics offers an enhanced awareness of the components, functions, and interfaces of human language. It prepares students for careers and advanced study for which such an awareness is essential through coursework aligned with a student's own professional goals and intellectual interests.

All students pursuing the Minor in Linguistics must complete 18 semester credit hours, at least 9 of which must be drawn from outside the major.

## A. 3 semester credit hours selected from the following:

ENG	3343	Principles of English Linguistics
ESL	3003	Applications of Linguistics
LNG	3813	Introduction to Linguistics

## B. 3 semester credit hours selected from the following courses in the linguistics of a particular language:

ENG	3323	History of the English Language
ENG	3333	Introduction to the Structure of English
SPN	3013	Spanish Phonetics and Pronunciation
SPN	3113	Linguistic Structures of Spanish
SPN	4113	Topics in Spanish Linguistics
SPN	4123	The Spanish of the Southwest

## C. 6 semester credit hours selected from the following courses in psycholinguistics, anthropological linguistics, sociolinguistics, or historical linguistics:

ANT	2053	Introduction to Cultural Anthropology
BBL	3013	Language Analysis and Bilingualism
BBL	3133	Language Development in Bilinguals
BBL	3403	Cultural and Linguistic Diversity in a Pluralistic Society
FL	4013	Cross-Cultural Communication and Foreign Languages
LNG	3833	Sociolinguistics
LNG	3843	Gender Issues in Language
PSY	4323	Psychology of Language
SOC	3523	Language and Society

- D. 6 additional semester credit hours chosen in consultation with an advisor in one or more of the following approved areas: anthropology, bicultural-bilingual studies, English, French, German, linguistics, and Spanish. Courses may be chosen from sections B or C or from the following:

BBL	2003	Language, Culture, and Society
BBL	4033	Assessment, Learning, and Motivation in Bicultural-Bilingual Contexts
COM	3083	Language and Communication Theory
ESL	3033	Foundations of English as a Second Language
FL	3013	Translation for the Language Specialist
FL	4243	Foreign Language Instruction
LNG	4013	Topics in Linguistics (May be repeated for credit in this section when topics vary.)
SPN	4953	Special Studies in Spanish (when topic is Spanish linguistics)

## COURSE DESCRIPTIONS LINGUISTICS (LNG)

### **3813 Introduction to Linguistics**

(3-0) 3 hours credit.

Basic principles of analysis and description of the structure of language, including sound system, word order, and meaning. Also, overview of selected subfields of linguistics, such as historical linguistics, sociolinguistics, language acquisition, and bilingualism. (Same as ANT 3903 and ENG 3343. Credit cannot be earned for more than one of these courses.)

### **3833 Sociolinguistics**

(3-0) 3 hours credit.

The examination of the interrelationships among language, culture, and society. Topics may include language use in social context, language variation and change, maintenance and shift, and multilingual societies.

### **3843 Gender Issues in Language**

(3-0) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in 3000-level linguistics course.

The examination and analysis of issues related to gender and language, such as the historical basis for grammatical gender, gender-based sociolinguistic differences, and recent research in gender-based expectations for language use.

### **4013 Topics in Linguistics**

(3-0) 3 hours credit. Prerequisite: One course in LNG or consent of instructor.

An opportunity to explore linguistic topics in depth, including sociolinguistics, psycholinguistics, neurolinguistics, pragmatics, syntax, semantics, phonology, or phonetics. May be repeated for credit when topics vary. (Formerly LNG 3913. Credit cannot be earned for both LNG 4013 and LNG 3913.)

## **Minor in Russian**

All students pursuing the Minor in Russian must complete 18 semester credit hours at the 2000 level and above.

- A. 6 semester credit hours of required language skill courses:

RUS	2013	Intermediate Russian I or an equivalent FL course
RUS	2023	Intermediate Russian II or an equivalent FL course

- B. 12 additional semester credit hours of Russian or Russian-related courses (including CSH and FL), 9 hours of which must be at the upper-division level

**COURSE DESCRIPTIONS**  
**RUSSIAN**  
**(RUS)**

- 1014 Elementary Russian I**  
(3-2) 4 hours credit.  
Fundamentals of Russian offering the opportunity to develop speaking, listening, reading, and writing skills. Introduction to Russian culture. [TCCN: RUSS 1411.]
- 1024 Elementary Russian II**  
(3-2) 4 hours credit. Prerequisite: RUS 1014, the equivalent, an appropriate placement test score, or consent of instructor.  
Fundamentals of Russian offering the opportunity to further develop speaking, listening, reading, and writing skills. Further exposure to Russian culture. [TCCN: RUSS 1412.]
- 2013 Intermediate Russian I**  
(3-1) 3 hours credit. Prerequisite: RUS 1024, the equivalent, an appropriate placement test score, or consent of instructor.  
Continued opportunity to develop listening, speaking, reading, and writing skills. Continued exposure to Russian culture. [TCCN: RUSS 2311.]
- 2023 Intermediate Russian II**  
(3-1) 3 hours credit. Prerequisite: RUS 2013, the equivalent, an appropriate placement test score, or consent of instructor.  
Continued opportunity to develop listening, speaking, reading, and writing skills. Continued exposure to Russian culture. [TCCN: RUSS 2312.]
- 2333 Russian Literature in English Translation**  
(3-0) 3 hours credit.  
Major works of Russian literature across time, genres, and movements. (Formerly RUS 3333. Credit cannot be earned for both RUS 2333 and RUS 3333.)
- 3033 Oral Communication Skills**  
(3-0) 3 hours credit. Prerequisite: RUS 2013 or the equivalent.  
Further development of speaking skills in a variety of contexts. May be repeated once for credit when topics vary.
- 3143 Structure of Russian Language**  
(3-0) 3 hours credit. Prerequisite: RUS 2013 or the equivalent.  
Extensive grammar review. Further development of speaking and writing skills through activities directed at the intermediate-high and advanced levels. Considerations of differences between written and spoken language. May be repeated once for credit when topics vary.
- 3213 Advanced Russian**  
(3-0) 3 hours credit. Prerequisite: RUS 2023 or the equivalent.  
Opportunity to develop advanced-level oral and written communication skills in the Russian language, along with enhanced comprehension skills in listening and reading. May be repeated for credit when topics vary.
- 3633 Topics in Russian Culture**  
(3-0) 3 hours credit. Prerequisite: RUS 2013 or the equivalent.  
Further development of proficiency by content-based instruction. Topics may include geography, traditions, history, music, literature, art, or film. May be repeated for credit when topics vary.

## COURSE DESCRIPTIONS

### ARABIC (ARA)

- 1014 Elementary Arabic I**  
(3-2) 4 hours credit.  
Fundamentals of Arabic offering the opportunity to develop speaking, listening, reading, and writing skills. Introduction to Arabic culture.
- 1024 Elementary Arabic II**  
(3-2) 4 hours credit. Prerequisite: ARA 1014, an equivalent, or an appropriate placement test score.  
Fundamentals of Arabic offering the opportunity to further develop speaking, listening, reading, and writing skills. Further exposure to Arabic culture.
- 2013 Intermediate Arabic I**  
(3-1) 3 hours credit. Prerequisite: ARA 1024, an equivalent, or an appropriate placement test score.  
Continued opportunity to develop listening, speaking, reading, and writing skills. Continued exposure to Arabic culture.
- 2023 Intermediate Arabic II**  
(3-1) 3 hours credit. Prerequisite: ARA 2013, an equivalent, or an appropriate placement test score.  
Continued opportunity to develop listening, speaking, reading, and writing skills. Continued exposure to Arabic culture.

## COURSE DESCRIPTIONS

### CHINESE (CHN)

- 1014 Elementary Chinese I**  
(3-2) 4 hours credit.  
Fundamentals of Chinese offering the opportunity to develop listening, speaking, reading, and writing skills. Emphasis on listening and speaking. Introduction to Chinese culture.
- 1024 Elementary Chinese II**  
(3-2) 4 hours credit. Prerequisite: CHN 1014, an equivalent, an appropriate placement test score, or consent of instructor.  
Fundamentals of Chinese offering the opportunity to further develop speaking, listening, reading, and writing skills. Further exposure to Chinese culture.
- 2013 Intermediate Chinese I**  
(3-1) 3 hours credit. Prerequisite: CHN 1024, an equivalent, an appropriate placement test score, or consent of instructor.  
Continued opportunity to develop listening, speaking, reading, and writing skills. Continued exposure to Chinese culture.
- 2023 Intermediate Chinese II**  
(3-1) 3 hours credit. Prerequisite: CHN 2013, an equivalent, an appropriate placement test score, or consent of instructor.  
Continued opportunity to develop listening, speaking, reading, and writing skills. Continued exposure to Chinese culture.

## COURSE DESCRIPTIONS ITALIAN (ITL)

- 1014 Elementary Italian I**  
(3-2) 4 hours credit.  
Fundamentals of Italian offering the opportunity to develop listening, speaking, reading, and writing skills. Emphasis on listening and speaking. Introduction to Italian culture. [TCCN: ITAL 1411.]
- 1024 Elementary Italian II**  
(3-2) 4 hours credit. Prerequisite: ITL 1014, the equivalent, an appropriate placement test score, or consent of instructor.  
Fundamentals of Italian offering the opportunity to develop listening, speaking, reading, and writing skills. Emphasis on listening and speaking. Further study of Italian culture. [TCCN: ITAL 1412.]
- 2013 Intermediate Italian I**  
(3-1) 3 hours credit. Prerequisite: ITL 1024, the equivalent, an appropriate placement test score, or the consent of instructor.  
Continued practice in developing listening, speaking, reading, and writing skills. Grammar and further study of Italian culture. [TCCN: ITAL 2311.]
- 2023 Intermediate Italian II**  
(3-1) 3 hours credit. Prerequisite: ITL 2013, the equivalent, an appropriate placement test score, or consent of instructor.  
Continued practice in developing listening, speaking, reading, and writing skills. Grammar review and further study of Italian culture. [TCCN: ITAL 2312.]
- 2333 Italian Literature in English Translation**  
(3-0) 3 hours credit.  
Major works of Italian literature across time, genres, and movements. (Formerly ITL 3333. Credit cannot be earned for both ITL 2333 and ITL 3333.)

## COURSE DESCRIPTIONS JAPANESE (JPN)

- 1014 Elementary Japanese I**  
(3-2) 4 hours credit.  
Fundamentals of Japanese offering the opportunity to develop basic speaking, listening, reading, and writing skills. Read and write hiragana and katakana. Emphasis on listening and speaking. Introduction to Japanese culture. [TCCN: JAPN 1411.]
- 1024 Elementary Japanese II**  
(3-2) 4 hours credit. Prerequisite: JPN 1014, the equivalent, the appropriate placement test score, or consent of instructor.  
Fundamentals of Japanese offering the opportunity to develop speaking, listening, reading, and writing skills. Introduction of Kanji. Emphasis on listening and speaking. Further study of Japanese culture. [TCCN: JAPN 1412.]
- 2013 Intermediate Japanese I**  
(3-1) 3 hours credit. Prerequisite: JPN 1024, the equivalent, the appropriate placement test score, or consent of instructor.  
Continued opportunity to develop listening, speaking, reading, and writing skills. Read and write basic Kanji. Reinforcement and expansion of basic grammar. Further study of Japanese culture. [TCCN: JAPN 2311.]

**2023 Intermediate Japanese II**

(3-1) 3 hours credit. Prerequisite: JPN 2013, the equivalent, the appropriate placement test score, or consent of instructor.

Continued opportunity to develop skills in listening, reading, speaking, and writing. Expansion of the basic knowledge of Kanji. Reinforcement and expansion of basic grammar. Study of Japanese culture. [TCCN: JAPN 2312.]

**3023 Advanced Language Skills**

(3-0) 3 hours credit. Prerequisite: JPN 2023, the equivalent, the appropriate placement test score, or consent of instructor.

Offers the opportunity to develop speaking, writing, reading, and listening skills in intermediate-high and advanced levels while reviewing fundamental grammar. Further study of Kanji.

**3053 Business Japanese**

(3-0) 3 hours credit. Prerequisite: JPN 2023, the equivalent, the appropriate placement test score, or consent of instructor.

Offers the opportunity to develop speaking, reading, and writing skills in business fields. Emphasis on Japanese business manners and business terminology.

**COURSE DESCRIPTIONS  
MEDIA STUDIES  
(MES)**

**3113 Film Studies**

(3-0) 3 hours credit. Prerequisite: WRC 1023 or the equivalent. CSH 2113 Foreign Film recommended.

Advanced analysis of selected films according to genre, director, or national cinema. May be repeated for credit when topics vary.

**3333 Digital Video Production**

(2-3) 3 hours credit. Prerequisite: WRC 1023 or the equivalent.

Theory and practice of digital video production for the humanities. Writing a storyboard, shooting a story, and editing using professional equipment.

**4333 Digital Video Practicum**

(2-3) 3 hours credit. Prerequisite: MES 3333 or consent of instructor.

Advanced digital video production for the humanities. Specialized community service projects.

**COURSE DESCRIPTIONS  
LATIN  
(LAT)**

See LAT listings on page 266 in the Department of English, Classics, and Philosophy section.

## DEPARTMENT OF MUSIC

The Department of Music is authorized to award the Bachelor of Music degree. This degree is accredited by the National Association of Schools of Music. Students may select one of four concentrations in the Bachelor of Music program: music performance, composition, music marketing, or music studies. Within the Music Studies concentration, students must select one of two tracks: all-level instrumental or all-level choral. The department also offers a Minor in Music.

Students entering the Bachelor of Music program with a Music Studies concentration may be required to satisfy additional requirements as prescribed by the State Board for Educator Certification (SBEC) and are advised to consult the College of Education and Human Development Advising and Certification Center.

Diagnostic examinations in music theory and music history are given to music majors entering UTSA for the first time. These examinations are given at the beginning of each semester and used as an aid in counseling.

In order to declare music as a major, students must successfully audition for faculty in their principal performance area. This audition will also serve as a basis for placement into ensembles and private instruction. If a student is not enrolled in Private Instruction for two consecutive long semesters (Fall or Spring), the student must reaudition for admission into the music program and for placement in an appropriate level of private instruction.

### Bachelor of Music Degree

The minimum number of semester credit hours required for this degree, including the Core Curriculum requirements, is 131 in the Music Performance concentration, 130 in the Composition concentration, 130 in the Music Marketing concentration, and 129 in the Music Studies concentration. Undergraduates seeking elementary teacher certification must complete the interdisciplinary studies degree.

All candidates for this degree must fulfill the Core Curriculum requirements and the music degree requirements, which are listed below. In addition, a candidate for the Bachelor of Music degree must complete the course requirements for the concentration declared by the candidate.

**Core Curriculum requirements:** Students seeking the Bachelor of Music degree must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<i>Mathematics</i> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <i>Science</i> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Economics</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. However, Music majors are strongly advised not to fulfill the arts requirement with either MUS 2623 or MUS 2683.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Music Degree Requirements

All candidates for the Bachelor of Music degree, regardless of concentration, must complete the following 36 semester credit hours of required music courses:

MUS	1102	Aural Skills I
MUS	1112	Basic Skills of Music I
MUS	1122	Aural Skills II <sup>1</sup>
MUS	1132	Basic Skills of Music II
MUS	2102	Aural Skills III
MUS	2112	Aural Skills IV
MUS	2152	Basic Skills of Music III
MUS	2162	Basic Skills of Music IV
MUS	2252	Introduction to Music Literature
MUS	2403	Conducting I
MUS	3113	Analysis of Tonal Music
MUS	3213	Music in Civilization I
MUS	3223	Music in Civilization II
MUS	3313	Microcomputer Applications in Music
MUS	3413	Foundations of Music

<sup>1</sup>. Students who qualify by examination may fulfill the Aural Skills & Basic Skills sequence by completing MUS 1123, 1133, 2103, and 2153 instead of MUS 1122, 1132, 2102, 2112, 2152, and 2162.

**Special degree requirements.** All students pursuing the Bachelor of Music degree are required:

- to make one recital appearance during the last semester of required study on their principal instrument
- to perform in University ensembles; specific ensemble requirements for each degree concentration are outlined in the Department of Music Student Handbook (available in the department office)
- to meet music performance proficiency standards established for principal instruments; students not meeting those standards must repeat music performance courses until the proficiency standards have been met
- to fulfill the recital attendance requirement as defined in the Department of Music Student Handbook; performance majors are required to make a minimum of one recital or area seminar appearance each semester on their principal instrument.

Listening examinations are required for students who specify classical guitar as their principal instrument. Details regarding listening examinations are available in the Department of Music Student Handbook.

In addition, candidates for the Bachelor of Music degree must complete the course requirements for the concentration they declare.

### **Music Performance Concentration**

All candidates for this concentration must fulfill the Core Curriculum requirements (42 hours), the music degree requirements (36 hours), as well as the course requirements necessary for this concentration (53 hours).

A. 24 semester credit hours of music performance are required from the following courses, some of which may be repeated for credit.

1. Principal Instrument

MUS	1512	Music Performance–Private Instruction (one semester)
MUS	1542	Music Performance–Private Instruction I (one semester)
MUS	2542	Music Performance–Private Instruction II (two semesters)
MUS	3543	Music Performance–Private Instruction IV (two semesters)
MUS	4543	Music Performance–Private Instruction V (two semesters)

2. Secondary Instrument(s)

**Non-Keyboard Principal Instrument:**

MUS	1532	Functional Piano for Non-Keyboard Principals
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**Keyboard Principal Instrument:**

MUS	1552	Functional Piano for Keyboard Principals
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2 semester credit hours from the following:

MUS	1511	Music Performance–Secondary Instrument
MUS	1512	Music Performance–Private Instruction
MUS	1521	Class Piano <sup>1</sup>
MUS	1531	Class Voice

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<sup>1</sup>. Students selecting keyboard as their principal instrument may not use MUS 1521 to fulfill the secondary instrument requirement.

- B. 6 semester credit hours of music theory selected from the following courses:

MUS 3133 Analysis of Twentieth-Century Music  
 MUS 3143 Orchestration  
 MUS 4113 Composition with Contrapuntal Techniques

Exception: a student whose principal instrument is an orchestral instrument is required to take MUS 3143 Orchestration.

- C. 4 semester credit hours of music literature (MUS 3252 Advanced Studies in Music Literature and Analysis):

Topics may include the following:

Vocal Literature (required of voice principals)  
 Operatic Literature (required of voice principals)  
 History and Literature of the Guitar (required of classical guitar principals)  
 Literature of the Pianoforte (required of piano principals)  
 Organ Literature (required of organ principals)  
 Orchestral Literature or Wind Literature (required of instrumental principals)

- D. Piano performance majors are required to complete 5 semester credit hours of accompanying; MUS 2501 Accompanying may be repeated for credit to fulfill this requirement.
- E. All music performance majors are required to complete 2 semester credit hours of MUS 4532 Music Pedagogy.
- F. Voice principals are required to complete 4 semester credit hours of diction; MUS 3511 Diction for Singers may be repeated for credit to fulfill this requirement.
- G. In order to demonstrate proficiency in one foreign language and acquire basic knowledge of a second, voice principals are required to complete at least two semesters of one foreign language (FRN 1014 and 1024, GER 1014 and 1024, or ITL 1014 and 1024) and one semester of a different foreign language (FRN 1014, GER 1014, or ITL 1014).
- H. For all music performance majors except voice principals, free electives are required depending on principal instrument:  
 12 semester credit hours for piano principals  
 16 semester credit hours for all other performance majors
- I. Admission to upper-division music performance as a music major must be approved by the appropriate qualifying committee; requirements for each area are specified in the Department of Music Student Handbook.
- J. A senior recital (MUS 4561) approximately one hour in length must be presented and approved by the appropriate recital committee.

### **Composition Concentration**

All candidates for this concentration must fulfill the Core Curriculum requirements (42 hours), the Music Degree Requirements (36 hours), as well as the course requirements necessary for this concentration (52 hours).

- A. 16 semester credit hours of music performance courses are required from the following courses, some of which may be repeated for credit.
1. Principal Instrument
- MUS 1512 Music Performance—Private Instruction (1 semester)  
 MUS 1542 Music Performance—Private Instruction I (1 semester)  
 MUS 2542 Music Performance—Private Instruction II (2 semesters)  
 MUS 3532 Music Performance—Private Instruction III (2 semesters)

2. Secondary Instrument(s)

**Non-Keyboard Principal Instrument:**

MUS 1532 Functional Piano for Non-Keyboard Principals

**Keyboard Principal Instrument:**

MUS 1552 Functional Piano for Keyboard Principals

2 semester credit hours from the following:

MUS 1511 Music Performance-Secondary Instrument

MUS 1512 Music Performance-Private Instruction

MUS 1521 Class Piano<sup>1</sup>

MUS 1531 Class Voice

B. 15 additional required semester credit hours of music theory and composition:

MUS 2142 Composition I

MUS 3133 Analysis of Twentieth-Century Music

MUS 3143 Orchestration

MUS 3162 Composition II

MUS 4113 Composition with Contrapuntal Techniques

MUS 4142 Composition III

C. 2 semester credit hours of MUS 3252 Advanced Studies in Music Literature and Analysis (Music since 1950 topic).

D. 3 semester credit hours of MUS 3123 Introduction to Electronic and Computer Music.

E. 15 semester credit hours of electives. Students intending to pursue graduate studies in Composition or Theory are strongly encouraged to take at least two semesters of a foreign language as electives; preferred languages include German, French, or Italian.

F. Students electing the Composition concentration must interview with the Composition Committee for approval to pursue the concentration at the upper-division level.

G. MUS 4561 Senior Recital is required of all students in the Composition concentration; the student's senior recital shall include a selection of the student's compositions totaling a minimum of 30 minutes. The student will submit completed musical scores representing a majority of the proposed recital program to an examining committee the semester before that of the recital. The examining committee shall determine the acceptability of the recital program.

### Music Marketing Concentration

All candidates for this concentration must fulfill the Core Curriculum requirements (42 hours), the Music Degree Requirements (36 hours), as well as the course requirements necessary for this concentration (52 hours).

A. 16 semester credit hours of music performance courses are required from the following, some of which may be repeated for credit. Students must satisfy either the Keyboard Principal Instrument requirements or the Non-Keyboard Principal Instrument requirements.

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<sup>1</sup>. Students selecting keyboard as their principal instrument may not use MUS 1521 to fulfill the secondary instrument requirement.

## 1. Principal Instrument

MUS	1512	Music Performance–Private Instruction (1 semester)
MUS	1542	Music Performance–Private Instruction I (1 semester)
MUS	2542	Music Performance–Private Instruction II (2 semesters)
MUS	3532	Music Performance–Private Instruction III (2 semesters)

## 2. Secondary Instrument(s)

**Non-Keyboard Principal Instrument:**

MUS	1532	Functional Piano for Non-Keyboard Principals
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**Keyboard Principal Instrument:**

MUS	1552	Functional Piano for Keyboard Principals
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2 semester credit hours from the following:

MUS	1511	Music Performance–Secondary Instrument
MUS	1512	Music Performance–Private Instruction
MUS	1521	Class Piano <sup>1</sup>
MUS	1531	Class Voice

## B. 12 additional required semester credit hours:

MUS	2263	Introduction to the Music Industry
MUS	3613	American Music and Culture
MUS	4803	Seminar in Music Marketing
MUS	4933	Music Marketing Internship

## C. 15 semester credit hours of required support work in business:

ACC	2013	Principles of Accounting I
BLW	3013	Business Law
ECO	2023	Introductory Microeconomics <sup>2</sup>
MGT	3013	Introduction to Organization Theory, Behavior, and Management
MKT	3013	Principles of Marketing

## D. 6 semester credit hours of additional support work in business selected from the following:

MKT	3083	Marketing Research
MKT	4013	Marketing Management
MKT	4043	Advertising Management
MKT	4073	International Marketing
MKT	4093	Consumer Behavior

## E. 3 additional semester credit hours of music or music marketing selected from the following:

MUS	3123	Introduction to Electronic and Computer Music
MUS	3153	Audio Technology I

<sup>1</sup>. Students selecting keyboard as their principal instrument may not use MUS 1521 to fulfill the secondary instrument requirement.

<sup>2</sup>. Must be fulfilled by successful completion of either ECO 2013 or ECO 2023. Students selecting the Music Marketing concentration are required to complete 6 semester credit hours of ECO coursework. This 3 semester-credit-hour economics requirement is in addition to the Core Curriculum requirement and cannot be fulfilled with the same course.

MUS	4953	Special Studies in Music (Music Marketing topic)
MKT	3043	Advertising
MKT	3113	Retailing

- F. Students electing the Music Marketing concentration must interview with the Music Marketing Committee for approval to pursue the concentration at the upper-division level.

### Music Studies Concentration

All candidates for this concentration must fulfill the Core Curriculum requirements (42 hours), the Music Degree Requirements (36 hours), as well as the course requirements necessary for this concentration (51 hours).

- A. All candidates for the Bachelor of Music with a Music Studies concentration, regardless of track, must complete the following 12 semester credit hours of private instruction in a principal instrument:

MUS	1512	Music Performance–Private Instruction (1 semester)
MUS	1542	Music Performance–Private Instruction I (1 semester)
MUS	2542	Music Performance–Private Instruction II (2 semesters)
MUS	3532	Music Performance–Private Instruction III (2 semesters)

The principal instrument for those whose student teaching will be in band must be a woodwind, brass, or percussion instrument(s); for instance, traditional percussion instruments as found in a band or orchestra–timpani, mallet instruments, multipercussion, but not drum set.

The principal instrument for those whose student teaching will be in string classes or orchestra must be violin, viola, cello, or contrabass (not electric bass).

The principal instrument for those whose student teaching will be in choral-general music must be voice or piano.

- B. 18 semester credit hours of professional education courses (including 6 hours of student teaching); for specific required courses, consult the College of Education and Human Development Advising and Certification Center.
- C. 3 semester credit hours in a state-mandated reading course; for specific required courses, consult the coordinator of music studies.
- D. A qualifying 30-minute proficiency recital must be presented on the student's principal instrument and approved prior to the semester of student teaching; specific requirements are outlined in the Department of Music Student Handbook.
- E. Students electing the Music Studies concentration must interview with the Music Studies Committee for approval to continue as a music studies major at the upper-division level.
- F. Students enrolled in the Music Studies concentration must successfully complete competency tests related to certification as specified by the Texas State Board for Educator Certification.

Details regarding the following track requirements are available in the Department of Music Student Handbook.

#### Track I: All-Level Instrumental Music (Grades K–12)

- A. 18 semester credit hours in music:

1. 14 semester credit hours of required music courses:

MUS	2413	Conducting II
MUS	3252 <sup>1</sup>	Advanced Studies in Music Literature and Analysis (2 semesters)
MUS	3401	Brass Instruments
MUS	3431	Woodwind Instruments I

<sup>1</sup>. Must be repeated to include topics Literature I and Literature II.

MUS	3441	Woodwind Instruments II
MUS	3471	String Instruments
MUS	3481	Percussion Instruments
MUS	4452	The Marching Band <sup>1</sup>

2. 4 semester credit hours of additional music performance study:

MUS	1532	Functional Piano for Non-Keyboard Principals
MUS	4532	Music Pedagogy

### **Track II: All-Level Choral Music (Grades K–12)**

- A. 18 semester credit hours in music:

1. 14 semester credit hours of required music courses:

MUS	2413	Conducting II
MUS	2601	Diction Survey
MUS	3252	Advanced Studies in Music Literature and Analysis (2 semesters)
MUS	3453	Music Studies I
MUS	3463	Music Studies II

2. 4 semester credit hours of additional music performance study:

Voice Principals:

MUS	1532	Functional Piano for Non-Keyboard Principals
MUS	4532	Music Pedagogy (vocal topic)

Keyboard Principals:

MUS	1552	Functional Piano for Keyboard Principals
MUS	1511	Music Performance-Secondary Instrument (voice); (2 semesters)

### **Minor in Music**

All students pursuing the Minor in Music must complete 21 semester credit hours.

- A. 8 semester credit hours of music theory courses:

MUS	1102	Aural Skills I
MUS	1112	Basic Skills of Music I
MUS	1122	Aural Skills II
MUS	1132	Basic Skills of Music II

- B. 3 semester credit hours of lower-division music studies selected from the following:

MUS	1521	Class Piano
MUS	1531	Class Voice
MUS	2252	Introduction to Music Literature
MUS	2403	Conducting I
MUS	2603	Beginning Guitar
MUS	2613	Intermediate Guitar
MUS	2633	American Roots Music
MUS	2663	History and Styles of Jazz

<sup>1</sup>Students with a string instrument as their principal instrument should consult with the coordinator of music studies or the College of Liberal and Fine Arts Advising Center to determine the approved substitutions for the course.

MUS	2673	History and Styles of Rock
MUS	2683	Masterpieces of Music
MUS	2693	The Music of Latin America

C. 6 semester credit hours of upper-division music studies selected from the following:

MUS	3123	Introduction to Electronic and Computer Music
MUS	3153	Audio Technology I
MUS	3313	Microcomputer Applications in Music
MUS	3453	Music Studies I
MUS	3463	Music Studies II
MUS	3613	American Music and Culture

D. Two semesters (a minimum of 2 semester credit hours) of Music Ensemble, as assigned

E. 2 semester credit hours of MUS 2001 Concert Music

## COURSE DESCRIPTIONS

### MUSIC (MUS)

#### **1001 Freshman Topics in Music**

(1-1) 1 hour credit.

Required for entering freshmen in the College of Liberal and Fine Arts with fewer than 15 hours of coursework and who are interested in majoring in Music. Critical study of topics in music. Innovative classroom and learning techniques are used to introduce students to these topics and to help strengthen critical thinking, problem solving, and writing skills. Specific topics covered include degree plan requirements, practice, rehearsal, and performance concerns, learning strategies and study techniques, concert behavior, and introduction to the use of information resources and available Arts building facilities, field trips, and guest lectures by various faculty. Content varies with each instructor. A maximum of 3 semester credit hours of freshman topics courses may apply to a bachelor's degree, although this specific topic may be taken only once.

#### **1102 Aural Skills I**

(2-1) 2 hours credit. Enrollment is limited to music majors and minors.

Offers the opportunity for training in sight singing, aural skills, and keyboard application. Should be taken concurrently with MUS 1112. [TCCN: MUSI 1216.]

#### **1112 Basic Skills of Music I**

(2-0) 2 hours credit. Enrollment is limited to music majors and minors.

A survey of fundamentals and concepts of music. Emphasis on rudiments and melody, with an introduction to harmony. Materials from a variety of style periods are studied. Should be taken concurrently with MUS 1102. [TCCN: MUSI 1211.]

#### **1122 Aural Skills II**

(2-1) 2 hours credit. Prerequisite: MUS 1102 or the equivalent. Enrollment is limited to music majors and minors.

Offers the opportunity to continue training in sight-singing, aural skills, and keyboard application, with emphasis on harmonic skills and 20th-century materials. Should be taken concurrently with MUS 1132. [TCCN: MUSI 1217.]

#### **1123 Aural Skills II Honors**

(3-1) 3 hours credit. Prerequisites: successful completion of MUS 1102 or the equivalent with a grade of "B" or higher and consent of instructor. Enrollment is limited to music majors.

An accelerated study of sight-singing, aural skills, and keyboard techniques applied to literature and theory drawn from MUS 1133. Must be taken concurrently with MUS 1133.

- 1132 Basic Skills of Music II**  
(2-0) 2 hours credit. Prerequisite: MUS 1112 or the equivalent. Enrollment is limited to music majors and minors. Offers the opportunity for development of harmonic analytical and writing skills. Analytical techniques are applied to music from a variety of style periods. Should be taken concurrently with MUS 1122. [TCCN: MUSI 1212.]
- 1133 Basic Skills of Music II Honors**  
(3-0) 3 hours credit. Prerequisites: successful completion of MUS 1112 or the equivalent with a grade of “B” or higher and consent of instructor. Enrollment is limited to music majors. An accelerated study of harmonic analytical and writing skills in tonal music. Includes chromatic materials of the early 19th century as well as an introduction to Schenkerian concepts of structural analysis. Must be taken concurrently with MUS 1123.
- 1511 Music Performance-Secondary Instrument**  
1 hour credit. Placement by audition and concurrent enrollment in an assigned University ensemble. Enrollment is limited to music majors. Private instruction for students desiring to or required to study as a secondary instrument the following: bassoon, clarinet, contrabass, cornet, electric bass, euphonium, flute, classical guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, or voice. Seminar attendance may be required. May be repeated for credit.
- 1512 Music Performance-Private Instruction**  
2 hours credit. Prerequisites: Placement by audition and concurrent enrollment in an assigned University ensemble. Enrollment is limited to music majors. Private instruction for all first-semester students, both freshmen and transfer students, desiring to or required to study the following instruments: bassoon, clarinet, contrabass, cornet, electric bass, euphonium, flute, classical guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, or voice. Seminar attendance may be required. Students must earn a grade of “C” or higher to progress to MUS 1542. May be repeated for credit a maximum of two semesters.
- 1521 Class Piano**  
1 hour credit. Prerequisite: Music major or consent of instructor. For music students with little or no piano background. Basic musical and technical skills of hand position, tone production, memorization, sight-reading, and musical style are introduced through the study of technical exercises and solo literature. Topics include Level 1 and Level 2. May be repeated for credit at a more advanced level.
- 1531 Class Voice**  
(1-0) 1 hour credit. For students with no previous vocal training. Offers the opportunity for development of fundamentals of voice technique through in-class performances of suitable songs. May be repeated for credit. [TCCN: MUSI 1183.]
- 1532 Functional Piano for Non-Keyboard Principals**  
(2-0) 2 hours credit. Prerequisite: Levels 1 and 2 of MUS 1521 Class Piano or consent of instructor. For non-keyboard principals. Offers the opportunity to develop score reading, transposition, and multiple-part reading.
- 1542 Music Performance-Private Instruction I**  
2 hours credit. Prerequisites: Successful completion of MUS 1512 with a grade of “C” or higher or placement by audition and concurrent enrollment in an assigned University ensemble. Limited to music majors. Private instruction for students desiring to or required to study the following instruments: bassoon, clarinet, contrabass, cornet, electric bass, euphonium, flute, classical guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, or voice. Seminar attendance may be required. May be repeated for credit a maximum of three semesters.

**1552 Functional Piano for Keyboard Principals**

(2-0) 2 hours credit. Prerequisite: Music major with piano or organ as the principal instrument or consent of instructor.

Offers the opportunity for development of keyboard skills, harmonization, transposition, and improvisation of accompaniments to melodies, sight-reading, score reading, and multiple-part reading.

**2001 Concert Music**

(1-0) 1 hour credit. Prerequisite: Music major or minor.

Required attendance at a selected number of approved music concerts and recitals as determined by the Department of Music. May be repeated for credit.

**2102 Aural Skills III**

(2-1) 2 hours credit. Prerequisite: MUS 1122 or an equivalent. Enrollment is limited to music majors.

Sight-singing, aural skills, and keyboard techniques applied to literature and theory drawn from MUS 2152. Should be taken concurrently with MUS 2152. [TCCN: MUSI 2216.]

**2103 Aural Skills III Honors**

(3-1) 3 hours credit. Prerequisites: successful completion of MUS 1123 with a grade of "B" or higher and consent of instructor. Enrollment is limited to music majors.

Sight-singing, aural skills, and keyboard techniques applied to literature and theory drawn from MUS 2153. Must be taken concurrently with MUS 2153.

**2112 Aural Skills IV**

(2-1) 2 hours credit. Prerequisites: MUS 2102 and MUS 2152, or their equivalents. Enrollment is limited to music majors.

Application of skills to materials drawn from MUS 2162 Basic Skills of Music IV. Should be taken concurrently with MUS 2162. [TCCN: MUSI 2217.]

**2132 Improvisation**

(2-0) 2 hours credit. Prerequisite: MUS 1132 or consent of instructor.

Offers the opportunity for development of creative skills applied to melodic, rhythmic, and harmonic elaboration techniques adapted to the student's instrument. Stylistic elements vary according to the topic offered: Jazz Improvisation or Improvisation in Traditional Styles. [TCCN: MUSI 1263.]

**2142 Composition I**

2 hours credit. Prerequisites: MUS 1102, MUS 1112, and consent of instructor.

Private study of the fundamentals of composition through small forms. Seminar attendance is required. [TCCN: MUSI 1286.]

**2152 Basic Skills of Music III**

(2-0) 2 hours credit. Prerequisite: MUS 1132 or the equivalent. Enrollment is limited to music majors.

A survey of the chromatic materials of music with emphasis on writing and analytical skills. Includes an introduction to Schenkerian concepts of structural analysis. Should be taken concurrently with MUS 2102. [TCCN: MUSI 2211.]

**2153 Basic Skills of Music III Honors**

(3-0) 3 hours credit. Prerequisites: successful completion of MUS 1133 or an equivalent with a grade of "B" or higher and consent of instructor. Enrollment is limited to music majors.

The continued study of chromatic materials of music, including a survey of form and an introduction to analytical techniques of 20th-century music. Must be taken concurrently with MUS 2103.

**2162 Basic Skills of Music IV**

(2-0) 2 hours credit. Prerequisite: MUS 2152 or the equivalent. Enrollment is limited to music majors.

The continued study of chromatic materials of music and of Schenkerian concepts of analysis. Includes a survey of form as well as an introduction to analytical techniques for early 20th-century music. Should be taken concurrently with MUS 2112. [TCCN: MUSI 2212.]

**2252 Introduction to Music Literature**

(2-1) 2 hours credit. Prerequisite: MUS 1132 or consent of instructor.

A study of music literature and the concepts associated with the principal performance genres. Includes biography, style analysis, and social and aesthetic backgrounds. (Formerly MUS 2253. Credit cannot be earned for both MUS 2252 and MUS 2253.)

**2263 Introduction to the Music Industry**

(3-0) 3 hours credit.

A survey of the various ways that musical art and commerce intersect in the modern marketplace. Designed to provide the opportunity for students to increase their awareness of the many facets of the music business and how they interconnect, available career options in music, and how to effectively plan for them. Topics include songwriting, publishing, performance, education, intellectual property (copyright, licensing, trademark), artist management, concert promotion, music product manufacturing, distribution, and merchandising, arts administration, recording industry, broadcast music, film scoring, technology, digital media, and arts/entertainment.

**2403 Conducting I**

(3-1) 3 hours credit. Prerequisite: MUS 1132 or the equivalent.

Fundamentals of beat patterns, score mechanics and score reading, regular and irregular meters, gesture design, lefthand cueing, and rehearsal techniques. Instrumental Music Laboratory attendance may be required.

**2413 Conducting II**

(3-1) 3 hours credit. Prerequisite: MUS 2403 or the equivalent.

Offers the opportunity for continued training in conducting, emphasizing score reading, rehearsal techniques, expressive conducting, score interpretation, and repertoire. Topics include Choral Conducting and Instrumental Conducting. For instrumental topic Instrumental Music Laboratory attendance may be required.

**2501 Accompanying**

(0-2) 1 hour credit.

The study of the skills and aesthetic principles needed to accompany vocal and instrumental music. Practical experience may be accomplished through accompanying. Intended for piano principles and piano performance majors. May be repeated for credit.

**2542 Music Performance—Private Instruction II**

2 hours credit. Prerequisites: MUS 1542 or placement by audition, and concurrent enrollment in an assigned University ensemble. Limited to music majors.

Private instruction for students desiring to or required to study the following instruments: bassoon, clarinet, contrabass, cornet, electric bass, euphonium, flute, classical guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, or voice. Seminar attendance may be required. May be repeated for credit a maximum of three semesters.

**2601 Diction Survey**

(1-1) 1 hour credit.

A survey of English and foreign language pronunciation as applied to performance. (Formerly MUS 3501. Credit cannot be earned for both MUS 2601 and MUS 3501.)

**2603 Beginning Guitar**

(3-0) 3 hours credit.

An introductory course intended primarily for the non-Music major. Emphasis will be on music in the first position (through the fourth fret) while students learn technical aspects as defined by the early 19th-century guitar masters.

**2613 Intermediate Guitar**

(3-0) 3 hours credit. Prerequisite: MUS 2603 or the equivalent.

Designed primarily for the non-Music major. Continued study of rudimentary classical guitar repertoire and basic elements of classical guitar technique.

**2623 Fundamentals of Music for the Non-Music Major**

(3-0) 3 hours credit.

A study of traditional music notation and the fundamentals of music theory. Topics will include music reading, rhythmic notation, intervals, scales, triads, and key signatures. Emphasis is placed on the historical development of music notation and music theoretical systems and their applications to both classical and popular music. [TCCN: MUSI 1301.]

**2633 American Roots Music**

(3-0) 3 hours credit.

Surveys Blues, Country and Western, Gospel, Cajun, Zydeco, Conjunto, Tejano, Reggae, Native American, and other uniquely American genres of music that evolved from regional, home-grown traditions into the mass market phenomenon of American popular music today. Designed to provide the opportunity for students to increase their awareness of the diversity of American traditional music, from the pioneering geniuses who originated the styles and practices to the contemporary artists reaching enormous international audiences.

**2663 History and Styles of Jazz**

(3-0) 3 hours credit.

A survey of the evolution of jazz styles, contributions of important performers, and musical techniques involved in the creation and performance of jazz music.

**2673 History and Styles of Rock**

(3-0) 3 hours credit.

A survey of the evolution of rock styles, contributions of important performers, and musical techniques involved in the creation and performance of rock music.

**2683 Masterpieces of Music**

(3-0) 3 hours credit.

A study of individual works selected from and representative of the musical traditions of the Western world. Background information on social setting and function, historical importance, aesthetics, and composers' biographies. (Formerly MUS 3643. Credit cannot be earned for both MUS 2683 and MUS 3643.) [TCCN: MUSI 1306.]

**2693 The Music of Latin America**

(3-0) 3 hour credit.

Surveys the folk, popular, and classical musical traditions of Latin America, with special emphasis on the principal regions of Mexico, Brazil, Argentina, and the Andes. (Formerly MUS 1213. Credit cannot be earned for both MUS 2693 and MUS 1213.)

**3113 Analysis of Tonal Music**

(3-0) 3 hours credit. Prerequisites: MUS 2112, MUS 2162, and MUS 2252, their equivalents, or consent of instructor. Analysis of forms and structures from the common practice era of tonal music beginning with a study of such smaller structural units as periods, binaries, and ternaries. Major emphasis is placed on such larger forms and genres as fugue and other contrapuntal types, sonata, and rondo.

**3123 Introduction to Electronic and Computer Music**

3 hours credit. Prerequisite: MUS 3313 or consent of instructor.

Private study serving as a conceptual and practical introduction to digital and analog synthesizers, sequencers, tape recorders, mixers, MIDI, samplers, computer software, and sound-processing techniques. Includes a survey of the history and literature of electronic music.

**3133 Analysis of Twentieth-Century Music**

(3-0) 3 hours credit. Prerequisite: MUS 3113.

Analysis of forms and structures drawn from the literature and repertoire of the 20th century. Beginning with a review of late tonal practices, such styles and techniques as Impressionism, atonality, serialism, and pre- and postserial tonality are studied in depth.

- 3143 Orchestration**  
(3-0) 3 hours credit. Prerequisites: MUS 2112, MUS 2162, MUS 2252, and MUS 3313 or their equivalents.  
Applied instrumentation emphasizing idiomatic scoring for various orchestral and wind combinations with an approach to writing for full orchestra and symphonic band.
- 3153 Audio Technology I**  
(3-0) 3 hours credit. Prerequisite: Consent of instructor.  
Fundamentals of recording, playback, and sound reinforcement equipment operation. Topics will include analog and digital recording principles, microphone selection and placement, and sound and recording engineering in live and studio applications. No previous musical background or recording experience required; however, an active interest in audio, recording techniques, and sound reinforcement is necessary.
- 3162 Composition II**  
2 hours credit. Prerequisites: MUS 2112, MUS 2142, MUS 2162, and MUS 2252, or their equivalents and consent of instructor.  
Private study in applied composition, with emphasis on expansion of musical materials to larger forms. Seminar attendance is required. May be repeated for credit.
- 3163 Audio Technology II**  
(3-0) 3 hours credit. Prerequisite: MUS 3153 or consent of instructor.  
A continuation of Audio Technology I providing students the opportunity to gain greater familiarity with the fundamentals of recording studio sound engineering, including more practical experience in the recording studios on campus. This course will emphasize a broad understanding of sound and acoustics; microphone design, construction, and placement; and equalization and its application and aesthetic treatment.
- 3172 Composition in Electronic Media**  
2 hours credit. Prerequisite: MUS 3123.  
Private study in composition, with an emphasis on such electroacoustic music techniques as digital sound synthesis and sampling, including an in-depth study of various computer applications in music. Seminar attendance is required. May be repeated for credit.
- 3213 Music in Civilization I**  
(3-0) 3 hours credit. Prerequisites: MUS 2162 and MUS 2252, or their equivalents.  
A study of the development of musical styles and literatures from antiquity to 1750, with emphasis on the parallels and influences of art, architecture, literature, and theater on musical art. In addition, the adaptation and influences of non-Western traditions and styles on Western art music will be considered.
- 3223 Music in Civilization II**  
(3-0) 3 hours credit. Prerequisites: MUS 2162 and MUS 2252, or their equivalents.  
A study of the development of musical styles and literatures from the Enlightenment to the present, with emphasis on the parallels and influences of art, architecture, literature, and theater on musical art. In addition, the adaptation and influences of non-Western traditions and styles on Western art music will be considered.
- 3252 Advanced Studies in Music Literature and Analysis**  
(2-1) 2 hours credit. Prerequisites: Upper-division standing and consent of instructor.  
A study of music literature and analysis at an advanced level in such topics as Chamber Music; Wind Literature I; Wind Literature II; Vocal Literature; Orchestral Literature; History and Literature of the Guitar; Choral Literature I; Choral Literature II; Literature of the Pianoforte; Organ Literature; The Operatic Tradition; Music Since 1950; and The Instrumental Concerto. Depending upon topic, Instrumental Music Laboratory attendance may be required. May be repeated for credit.
- 3313 Microcomputer Applications in Music**  
(3-1) 3 hours credit. Prerequisite: Consent of instructor.  
Survey of concepts and development of skills related to current computer technology in music. Topics include MIDI, sequencers, tonal synthesis, note editors, productivity tools, and recent trends in the field.

**3401 Brass Instruments**

(1-1) 1 hour credit. Prerequisite: MUS 1132 or the equivalent.

A study of playing techniques, selection of materials, and maintenance of brass instruments. Instrumental Music Laboratory attendance may be required.

**3413 Foundations of Music**

(3-1) 3 hours credit. Prerequisites: MUS 2162 and 2252 or their equivalents, and upper-division standing in music.

An approach to the foundations of music from different disciplinary perspectives. Focuses on music in contemporary society; current research from anthropology, biology, psychology, sociology, philosophy and aesthetics, economics, and ethics will be presented.

**3431 Woodwind Instruments I**

(1-1) 1 hour credit. Prerequisite: MUS 1132 or the equivalent.

A study of the playing techniques, selection of materials, and maintenance of flutes and clarinets. Instrumental Music Laboratory attendance may be required. (Formerly MUS 3451. Credit cannot be earned for both MUS 3431 and MUS 3451.)

**3441 Woodwind Instruments II**

(1-1) 1 hour credit. Prerequisite: MUS 1132 or the equivalent.

A study of the playing techniques, selection of materials, and maintenance of saxophones, oboes, and bassoons. Instrumental Music Laboratory attendance may be required. (Formerly MUS 3451. Credit cannot be earned for both MUS 3441 and MUS 3451.)

**3453 Music Studies I**

(3-1) 3 hours credit. Prerequisite: Upper-division standing in music or consent of instructor.

A study of the essential elements of music as they relate to children. (Formerly MUS 4423. Credit cannot be earned for both MUS 3453 and MUS 4423.)

**3463 Music Studies II**

(3-1) 3 hours credit. Prerequisite: Upper-division standing in music or consent of instructor.

A study of the essential elements of music as they relate to teenagers.

**3471 String Instruments**

(1-1) 1 hour credit. Prerequisite: MUS 1132 or the equivalent.

A study of playing techniques, selection of materials, and maintenance of string instruments. Instrumental Music Laboratory attendance may be required.

**3481 Percussion Instruments**

(1-1) 1 hour credit. Prerequisite: MUS 1132 or the equivalent.

A study of playing techniques, selection of materials, and maintenance of percussion instruments. Instrumental Music Laboratory attendance may be required.

**3511 Diction for Singers**

(1-1) 1 hour credit.

An intensive study of language pronunciation as applied to performance. Topics include English, French, Italian, and German. May be repeated for credit.

**3532 Music Performance—Private Instruction III**

2 hours credit. Prerequisites: Successful completion of two semesters of MUS 2542 or placement by audition and concurrent enrollment in an assigned University ensemble. Limited to music majors.

Private instruction for students desiring to or required to study the following instruments: bassoon, clarinet, contrabass, cornet, flute, classical guitar, electric bass, euphonium, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, or voice. Seminar attendance may be required. May be repeated for credit a maximum of three semesters.

**3543 Music Performance—Private Instruction IV**

3 hours credit. Prerequisites: Upper division standing, successful completion of two semesters of MUS 2542 or placement by audition, and concurrent enrollment in an assigned University ensemble. Limited to students accepted to upper-division standing in the Performance emphasis of the Bachelor of Music degree program.

Private instruction at an advanced level in bassoon, clarinet, contrabass, cornet, euphonium, flute, classical guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, or voice. Seminar attendance may be required. May be repeated for credit a maximum of three semesters.

**3613 American Music and Culture**

(3-0) 3 hours credit.

A survey designed to explore the evolution of musical styles and practices in relationship to business, economics, technology, and social change in America. Intended to provide the opportunity for students to increase their awareness of topics including the European and African roots of American folk, popular, and classical music; the evolution of various traditional music styles into commercial musical genres during the 20th century; the emergence of a music industry producing musical commodities for the mass market; changes in musical styles and practices and how they relate to social issues, including racism, race relations, population migration, education, and leisure.

**3701 Madrigal Singers**

(0-3) 1 hour credit. Prerequisite: Consent of instructor by audition.

An ensemble specializing in the performance of outstanding chamber choral music from the Middle Ages to the present. Previous musical experience and reading ability required. The ensemble performs on and off campus. May be repeated for credit.

**3712 Concert Choir**

(0-5) 2 hours credit. Prerequisite: Consent of instructor by audition.

Select ensembles, both mixed and women's, open to all students by audition. These groups perform a variety of repertoire from all historical periods. May be repeated for credit.

**3721 UTSA Chorus**

(0-3) 1 hour credit.

This choral ensemble is open to all students without audition. No previous choral experience is necessary. Many types of music are studied, and the repertoire is moderate in difficulty. May be repeated for credit.

**3731 UTSA University Band**

(0-3) 1 hour credit.

Open to all students by audition. Ensemble rehearses and performs standard repertoire of concert band music. May be repeated for credit.

**3741 Chamber Orchestra**

(0-3) 1 hour credit. Open to all string students by audition; concurrent enrollment in MUS 3761 is required of all string principals.

This ensemble will study, rehearse, and perform literature from the string orchestra repertoire. May be repeated for credit.

**3742 UTSA Wind Ensemble**

(0-5) 2 hours credit. Prerequisite: Consent of instructor.

The wind ensemble studies, rehearses, and performs the repertoire for various combinations of wind instruments. May be repeated for credit.

**3752 UTSA Symphonic Band**

(0-5) 2 hours credit.

Open to all students by audition. Ensemble performs standard repertoire for the full symphonic band. May be repeated for credit.

- 3761 UTSA Orchestra**  
(0-3) 1 hour credit.  
Open to all students by audition; concurrent enrollment in MUS 3741 is required of all string principals. The UTSA Orchestra studies, rehearses, and performs literature from the standard orchestral repertoire. May be repeated for credit.
- 3771 Jazz Ensemble**  
(0-3) 1 hour credit.  
Open to all students by audition. Ensemble specializes in the performance of the various streams of jazz and other music appropriate to stage bands, jazz ensembles, and vocal jazz groups. May be repeated for credit.
- 3792 Opera Workshop**  
(0-5) 2 hours credit.  
Open to all students by audition. The study and performance of opera and other types of musical theater from the Baroque period to the present. May be repeated for credit.
- 4113 Composition with Contrapuntal Techniques**  
3 hours credit. Prerequisites: MUS 2112, MUS 2162, and MUS 2252.  
Private study in applied composition, with an emphasis on 18th- and 20th-century contrapuntal techniques and procedures.
- 4142 Composition III**  
2 hours credit. Prerequisites: MUS 3113 and MUS 3162, or consent of instructor.  
Writing in the larger forms for small and large ensembles and electronic media. Seminar attendance is required. May be repeated for credit.
- 4452 The Marching Band**  
(2-1) 2 hours credit. Prerequisites: MUS 2162 and MUS 2252.  
A study of the repertoire, materials, and maneuvers used by marching bands. (Formerly MUS 4453. Credit cannot be earned for both MUS 4452 and MUS 4453.)
- 4531 Music Pedagogy I**  
(1-1) 1 hour credit. Prerequisite: Upper-division standing in music or consent of instructor.  
Survey of techniques, practices, and materials related to the development of teaching of orchestral and solo instruments and voice. Review of materials for beginning, intermediate, and advanced students. Topics include Strings, Brass, Woodwinds, Percussion, Guitar, Piano, Organ, Voice, and Instrumental Ensemble. May be repeated for credit. Voice and piano topics require successful completion of two semesters of MUS 1511 (Voice or Piano) or equivalent competency. Instrumental Ensemble topic requires successful completion of MUS 3401, MUS 3431, and MUS 3441. (Same as MUS 4532. Credit cannot be earned for both MUS 4531 and MUS 4532.)
- 4532 Music Pedagogy**  
(2-1) 2 hours credit. Prerequisite: Upper-division standing in music or consent of instructor.  
Survey of techniques, practices, and materials related to the development and teaching of orchestral and solo instruments and voice. Review of materials for beginning, intermediate, and advanced students. Topics include Strings, Brass, Woodwinds, Percussion, Guitar, Piano, Organ, Voice, and Instrumental Ensemble. May be repeated for credit. Voice topic requires successful completion of two semesters of MUS 1511 (Voice) or equivalent competency. Instrumental Ensemble topic requires successful completion of MUS 3401, MUS 3431, and MUS 3441. Depending upon topic. Instrumental Music Laboratory attendance may be required. (Same as MUS 4541. Credit cannot be earned for both MUS 4532 and MUS 4541.)
- 4541 Music Pedagogy II**  
(1-1) 1 hour credit. Prerequisite: Upper-division standing in music or consent of instructor.  
Practical application of techniques, practices, and materials related to the development and teaching of orchestral and solo instruments and voice. Topics include Strings, Brass, Woodwinds, Percussion, Guitar, Piano, Organ, Voice, and Instrumental Ensemble. May be repeated for credit. Voice and piano topics require successful completion of two semesters of MUS 1511 (Voice or Piano). Instrumental Ensemble topic requires successful completion of MUS 3401, MUS 3431, and MUS 3441. (Same as MUS 4532. Credit cannot be earned for both MUS 4541 and MUS 4532.)

**4543 Music Performance—Private Instruction V**

3 hours credit. Prerequisites: Successful completion of two semesters of MUS 3543 or the equivalent, placement by audition, and concurrent enrollment in an assigned University ensemble. Limited to students accepted to upper-division standing in the Performance concentration of the Bachelor of Music degree program.

Private instruction at an advanced level in bassoon, clarinet, contrabass, cornet, euphonium, flute, classical guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, or voice. Seminar attendance may be required. May be repeated for credit a maximum of three semesters. (Formerly MUS 4544.)

**4561 Senior Recital**

1 hour credit. Prerequisite: Consent of instructor. Concurrent enrollment in MUS 4543 is required of students in the Performance concentration; concurrent enrollment in MUS 4142 is required of students selecting the Composition concentration.

A public performance presented as a culmination of the student's private instruction.

**4581 Chamber Music**

(0-3) 1 hour credit. Prerequisite: Upper-division standing in music.

Designed to offer students the opportunity to gain knowledge of chamber music literature and perform this repertoire. Instruction in brass ensemble, woodwind ensemble, percussion ensemble, string ensemble, mixed ensemble, vocal ensemble, and chamber opera. May be repeated for credit.

**4803 Seminar in Music Marketing**

(3-0) 3 hours credit. Prerequisite: MUS 3613 or consent of instructor.

An intensive study of music markets, channels of distribution, strategies, and musical product management.

**4911-3 Independent Study**

1 to 3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, the Department Chair, and the Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4933 Music Marketing Internship**

3 hours credit. Prerequisites: MKT 3013, MUS 3613, MUS 4803, grade point average of 2.5 or higher, and permission in writing from the instructor and Department Chair.

The opportunity to gain knowledge through experience in the music industry under the supervision of private business professionals. Opportunities will be developed in consultation with the faculty advisor and appropriate business professionals.

**4953 Special Studies in Music**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when the topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

## DEPARTMENT OF POLITICAL SCIENCE AND GEOGRAPHY

The Department of Political Science and Geography offers Bachelor of Arts degrees in Political Science and Geography. The department also offers Minors in Geography, Political Science, African American Studies, International Studies, Legal Studies, and Public Administration.

At least 33 semester credit hours of coursework are required to fulfill a political science or geography major. The 33-hour total is considered a minimum, and students are encouraged to deepen and broaden their grasp of their major through careful allocation of their elective semester credit hours.

All degrees require students to complete at least 6 semester credit hours of support work. These courses, which require advance approval from advisors, should serve to introduce students to other social sciences in addition to those entailed in the coursework within students' major discipline.

### INTERNSHIP STUDY

Majors in the Department of Political Science and Geography may apply 3 or 6 semester credit hours of internship study to their baccalaureate program. Internship entails supervised experience, usually within selected organizations in the San Antonio area. The internship coordinator of the Department of Political Science and Geography arranges placement. Department faculty members provide supervision and grade internship performance. Students majoring in nonsocial science disciplines are welcome to participate but should consult with their faculty advisors regarding the role of the internship within their own degree programs. Further information can be obtained from the internship coordinator.

### DEPARTMENT HONORS

The Honors Program of the Department of Political Science and Geography is an opportunity for advanced study under faculty supervision for students who have demonstrated outstanding scholarship. The prerequisites for a student's participation in the Honors Program are a minimum grade point average of 3.0 at UTSA, a 3.5 grade point average in the major, and recommendation by a member of the Political Science and Geography faculty. Students who apply for Honors will enroll in the appropriate honors thesis course during their final two semesters at UTSA. An Honors Committee will be formed with the recommending faculty and another faculty member. The Committee must pass the thesis for a student to earn honors at UTSA. Students interested in this program should contact their faculty advisor for additional information.

### Bachelor of Arts Degree in Geography

The minimum number of semester credit hours required for the Bachelor of Arts degree in Geography, including the Core Curriculum requirements, is 120. Thirty-nine of the total semester credit hours required for the degree must be at the upper-division level.

All candidates for this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Geography must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) GRG 2613 Physical Geography satisfies the core requirement for Domain I, Level Two; however, another course must be taken to meet the requirement for Level One.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) GRG 2623 Human Geography <b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

### Degree Requirements

A. 33 semester credit hours in the major, 24 of which must be at the upper-division level:

1. 15 semester credit hours:

9 required semester credit hours:

GRG 2613 Physical Geography

GRG 2623 Human Geography

GRG 3323 Spatial Analysis

6 additional semester credit hours selected from the following:

GRG 3113 Geography of the United States and Canada

GRG 3123 Geography of Latin America

GRG 3133 Geography of Europe

GRG 3143 Geography of Mexico

GRG	3153	Geography of Texas
GRG	3423	Geopolitics of Russia and Eurasia
GRG	3433	The Geography and Politics of the Asian Rim

2. 18 additional semester credit hours of geography electives chosen in consultation with the student's advisor. A maximum of 6 of these hours, as approved by student's advisor, may be applied to the major from selected courses in the following three areas:

Urban and economic studies  
International studies  
Earth science and resources

- B. 6 semester credit hours of courses in the social sciences outside the major, chosen with the consent of the advisor
- C. 6 semester credit hours of a single language other than English
- D. 33 semester credit hours of electives

### **Minor in Geography**

All students pursuing the Minor in Geography must complete 18 semester credit hours.

- A. 6 semester credit hours of courses in core concepts and regions:

GRG	1013	Fundamentals of Geography
GRG	1023	World Regional Geography

- B. 3 semester credit hours of upper-division regional geography selected from the following:

GRG	3113	Geography of the United States and Canada
GRG	3123	Geography of Latin America
GRG	3133	Geography of Europe
GRG	3143	Geography of Mexico
GRG	3153	Geography of Texas

- C. 9 semester credit hours of upper-division electives in geography

To declare a Minor in Geography, obtain advice, or seek approval of substitutions for course requirements, students should consult the College of Liberal and Fine Arts Advising Center.

## **COURSE DESCRIPTIONS GEOGRAPHY (GRG)**

### **1013 Fundamentals of Geography**

(3-0) 3 hours credit.

Introduction to the study of physical and cultural features of the earth and their distributions, causes, and consequences to humans. Topics include landforms, climate, natural resources, population, human behavior in spatial context, economic growth, urbanization, and political systems. [TCCN: GEOG 1300.]

### **1023 World Regional Geography**

(3-0) 3 hours credit.

Study of the world's regions, focusing on salient physical, cultural, economic, and political characteristics, including physiography, climate, natural resources, population, economic structure and development, globalization, urban growth, cultural institutions, and political structure. Regions include North America, Latin America, Europe, Middle

East/North Africa, Sub-Saharan Africa, South Asia, Japan, China and East Asia, the Russian Federation, and Australasia. (Formerly GRG 2633. Credit cannot be earned for both GRG 1023 and GRG 2633.) [TCCN: GEOG 1303.]

**2613 Physical Geography**

(3-0) 3 hours credit.

Study of the earth's major landforms and climatic patterns, the processes giving use to these patterns, and their relationship to human activity. Includes the geomorphology of volcanoes, glaciers, coral reefs, mountains, caves, dunes, and plate tectonics. [TCCN: GEOG 1301.]

**2623 Human Geography**

(3-0) 3 hours credit.

Study of the relationship between the social and spatial structures of society, including spatial stereotyping, spatial perception, human territoriality, innovation diffusion, migration, and spatial planning. [TCCN: GEOG 1302.]

**2633 Introduction to Geographic Methods**

(3-0) 3 hours credit.

Broad survey of geographic research methods. May include Map Interpretation, Basic Field Techniques, Archival Research Methods, Geographic Information Systems, Computer Cartography, Digital Remote Sensing, and Spatial Statistics. Students will be exposed to ways geographic data is used to address social and environmental problems and will receive some hands-on experience with modern computer-based geographic technologies. This course is strongly recommended before upper-division courses in geographic techniques (GIS, Computer Cartography, Spatial Analysis, or Remote Sensing.)

**3113 Geography of the United States and Canada**

(3-0) 3 hours credit.

Selected geographic aspects of the major regions of the United States and Canada, emphasizing current social and economic issues in these regions.

**3123 Geography of Latin America**

(3-0) 3 hours credit.

Selected geographic aspects of Mexico, Central America, the West Indies, and South America, emphasizing economic development and social change.

**3133 Geography of Europe**

(3-0) 3 hours credit.

Survey of the European culture area, including Western Europe, Eastern Europe, and the Baltics. Discussion of historical, urban, political, ethnic, and economic forces shaping the 20th-century geography of Europe, including the European Union and the Russian Federation.

**3143 Geography of Mexico**

(3-0) 3 hours credit.

Investigation of Mexico's physical and social geography, including climatic and geomorphologic influences, the historical imprint of the Amerindians and the Spanish, population growth and migration, urbanization, patterns of agriculture and industry, and current social and economic issues.

**3153 Geography of Texas**

(3-0) 3 hours credit.

A topical and regional examination of the physical, cultural, and economic patterns of the state. Includes demographic characteristics, agriculture, mining, manufacturing, selected urban areas, and current social issues. May include a field trip to the nonmetropolitan hinterland of San Antonio.

**3213 Cultural Geography**

(3-0) 3 hours credit.

A thematic exploration of the nature and distribution of human culture hearths, population, folk culture, popular culture, agriculture, industrialization, languages, and religion. Topics are defined and examined in the context of their manifestations and influences as regions, cultural diffusion, ecology, cultural interaction, and landscapes.

**3314 Introduction to Geographic Information Systems**

(3-2) 4 hours credit.

An introductory course on the application of the computer to the acquisition, manipulation, analysis, and display of geographic data; overview of projection systems, data acquisition issues, and presentation techniques. Three lecture and two laboratory hours per week. It is strongly recommended students take GRG 2633 or have equivalent experience before enrolling in GRG 3314. (Formerly GRG 3313. Credit cannot be earned for both GRG 3314 and GRG 3313.)

**3323 Spatial Analysis**

(3-0) 3 hours credit.

Conceptualization and statistical analysis of spatial variables. Topics may include the scientific method in the social sciences, research design, spatial sampling, spatial pattern analysis, and the univariate and multivariate analysis of areal data. May include the application of computer-based geographic information systems to the analysis of spatial patterns and distributions.

**3334 Advanced Geographic Information Systems**

(3-2) 4 hours credit. Prerequisite: GRG 3313 or GRG 3314.

Advanced topics in the use of computer-based analysis of geographic information including data acquisition, modeling complex datasets, and an introduction to scripting to customize an industry-standard software package. (Formerly GRG 3333. Credit cannot be earned for both GRG 3334 and GRG 3333.)

**3343 Analytical and Computer Cartography**

(2-2) 3 hours credit.

The design, construction, production, and reproduction of maps using computer hardware and software. Topics may include cartographic theory, principles of visual communication, and the techniques of geographic visualization, including 3-D and 4-D modeling and animation.

**3423 Geopolitics of Russia and Eurasia**

(3-0) 3 hours credit.

Multidisciplinary introduction and regional study of the Russian Federation and the Eurasian realm, including the Caucasus, Central Asian nations, Afghanistan, and Mongolia. Both the geography and the politics of this area will be analyzed. Historical and contemporary geopolitical topics include nation-building, regional civilizations, revolution, terrorism, the 19th-century "Great Game," the rise of the USSR, and the current transition of the Russian Federation to an uncertain future. (Same as POL 3423. Credit cannot be earned for both GRG 3423 and POL 3423.)

**3433 The Geography and Politics of the Asian Rim**

(3-0) 3 hours credit.

An analysis of the states spanning from the Indian subcontinent through Indo-China to Japan and China. Examination of their physical and social geographies and the regional political dynamics prevalent in the modern era. Selected themes will include population dynamics, cultural hearths, immigration patterns, economic development, and regional integration.

**3513 Urban Geography**

(3-0) 3 hours credit.

An examination of the physical form of the city. Themes and topics include the origins and evolution of the urban form; the relationship between the natural environment and urbanization; commercial influences on land uses in North American and world urban centers; social change and the city.

**3523 Introduction to Urban Planning**

(3-0) 3 hours credit.

An introduction to the urban public policy, urban dynamics, selected problems, and the role of the master planning process in their management and solution. Issues and themes include poverty, public education, urban growth, municipal and regional government, energy and waste management, historic preservation and urban design, and relationships between transportation and land use.

- 3533 Geography of Economic Activity**  
(3-0) 3 hours credit.  
Investigates the location of economic activities at various scales. Analyzes agricultural, industrial, retail, and service locations through relevant theories, models, and case studies of the local economy. Includes economic base, shift-share analysis, the nature of globalization, and the impact of economic cycles.
- 3613 Conservation of Resources**  
(3-0) 3 hours credit.  
A survey of natural resources, environmental policies, global consumption patterns, and the competing values that affect them. Topics include agriculture, water resources, air pollution, waste disposal, land management, wildlife preservation, habitat conservation, biodiversity, energy production, urban sprawl, economic growth, and other selected components of built and natural systems.
- 3633 Geography of Development**  
(3-0) 3 hours credit.  
Survey and analysis of economic growth and social change in different parts of the world. Topics may include the evolution of global inequalities, the definition of development, the impacts of population growth and migration, and the role of agriculture, industry, and transportation.
- 3643 Political Geography**  
(3-0) 3 hours credit.  
Investigates the role of the political state in society and the evolution of state organization from classical times to the present. Topics may include centrifugal and centripetal forces, geopolitics, territorial morphology, boundaries, core areas, and emerging supranationalism.
- 3653 Geographic Perspectives on Women**  
(3-0) 3 hours credit.  
The course studies the role of women in the spatial organizations of society. Topics may include analysis of gendered spaces, the importance of gender relations in shaping physical, social, and built environments, and the spatial-economic consequences of gender-based policies.
- 3713 Weather and Climate**  
(3-0) 3 hours credit.  
Analysis of the elements and causes of daily weather, climatic classifications, and climate change. Study of world distributions and components of climate, with studies of air pressure, precipitation, air masses, optical phenomena, and wave cyclones. Regional attention to weather patterns, including tornadoes and hurricanes.
- 3723 Physiography**  
(3-0) 3 hours credit.  
Description and interpretation of relief features of the earth's surface by examination of regions with particular patterns of landforms and topography.
- 3733 Urban and Regional Analysis**  
(3-0) 3 hours credit.  
Applied models of urban and regional growth, structure, interaction, influence, and inequality over space, with emphasis on the United States. Stresses practical skills.
- 4313 Remote Sensing**  
(2-2) 3 hours credit. Prerequisite: GRG 2633 or GRG 3314 or equivalent.  
Introduction to the use of electromagnetic energy to sense objects in the natural and built environment; interpretation and recognition of patterns detected by satellite and aircraft-borne sensors. Application of computer software to the analysis and interpretation of remotely-sensed information.

**4911-3 Independent Study**

1 to 3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, the Department Chair, and the Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4933,6 Internship in Geography**

3 or 6 hours credit. Prerequisite: Consent of internship coordinator and faculty supervisor.

Supervised experience relevant to geography within selected community organizations. A maximum of 6 semester credit hours may be earned through the internship.

**4953 Special Studies in Geography**

(3-0) 3 hours credit.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4993 Honors Thesis**

3 hours credit. Prerequisites: Enrollment limited to candidates for Honors in Geography during the last two semesters; completion of honors examination and consent of the Honor College.

Supervised research and preparation of an honors thesis. May be repeated once with advisor's approval.

**Bachelor of Arts Degree in Political Science**

The minimum number of semester credit hours required for the Bachelor of Arts degree in Political Science, including the Core Curriculum requirements, is 120. Thirty-nine of the total semester credit hours required for the degree must be at the upper-division level.

All candidates for this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Political Science must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<i>Mathematics</i> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <i>Science</i> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Economics</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Degree Requirements

- A. 33 semester credit hours in the major, 21 hours of which must be at the upper-division level. Courses must be selected in the following manner:
1. 6 semester credit hours of courses selected from the following:
    - POL 2503 Introduction to Political Theory
    - POL 2513 Public Administration and Public Policy
    - POL 2533 Introduction to Political Science
    - POL 2603 International Politics
    - POL 2623 Law and Society
    - POL 2633 Comparative Politics
  2. 3 semester credit hours:
    - POL 2703 Scope and Methods in Political Science
  3. 21 semester credit hours of political science electives, 18 hours of which must be at the upper-division level, with at least 3 hours in each of the following subfields (See list of courses by subfield on page 316, following description of the political science major and minor):
    - American politics
    - Comparative politics
    - International relations
    - Political theory
    - Public administration or public law
  4. One senior-level seminar selected from the following:
    - POL 4153 Seminar in Jurisprudence
    - POL 4973 Seminar in Political Science
    - Approved section of POL 4953 Special Studies in Political Science

- B. 6 semester credit hours of courses in the social sciences outside the major, chosen with consent of the advisor
- C. 6 semester credit hours of a single language other than English
- D. 33 semester credit hours of electives

### **Minor in Political Science**

All students pursuing the Minor in Political Science must complete 18 semester credit hours, 12 hours of which must be upper-division.

- A. 6 semester credit hours of lower-division courses selected from the following:
  - POL 2503 Introduction to Political Theory
  - POL 2513 Public Administration and Public Policy
  - POL 2533 Introduction to Political Science
  - POL 2603 International Politics
  - POL 2623 Law and Society
  - POL 2633 Comparative Politics
  - POL 2703 Scope and Methods in Political Science
- B. 12 upper-division semester credit hours. Students must take at least one upper-division class in three of the six subfields (See list of courses by subfield listed below):

#### **Subfields in Political Science:**

##### **American Politics**

- POL 3073 African American Politics
- POL 3083 Ethnic Politics in the United States
- POL 3093 Mexican American Politics
- POL 3123 Political Psychology
- POL 3183 Women in Politics
- POL 3234 Political Campaigns and Elections
- POL 3244 Mass Media and Public Opinion
- POL 3253 Participation and American National Elections
- POL 3283 The American Presidency
- POL 3293 Political Movements
- POL 3303 Race, Ethnicity, and Public Policy
- POL 3363 Political Parties and Interest Groups
- POL 3373 The Legislative Process
- POL 3413 The Politics of Urban Development
- POL 3573 Politics of the Contemporary City

##### **Comparative Politics**

- POL 3063 Comparative Political Participation
- POL 3213 Business and Politics in the Third World
- POL 3353 Leadership and Elites
- POL 3393 Latin American Politics
- POL 3403 European Politics
- POL 3423 Geopolitics of Russia and Eurasia
- POL 3433 Governments and Politics of Southeast Asia
- POL 3443 Governments and Politics of East Asia
- POL 3453 The Politics of Mexico
- POL 3463 Politics of the Third World

POL	3473	Theories and Problems in Latin American Politics
POL	3493	Politics of the Middle East
POL	3553	Social Policy in Modern Welfare States
POL	3633	Political Economy

### **International Politics**

POL	3033	International Governance
POL	3043	Human Rights
POL	3053	United States–Latin American Relations
POL	3483	International Political Economy
POL	3503	American Foreign Policy since World War II
POL	3513	International Organizations
POL	3523	Force in International Politics
POL	3563	Current Issues in World Politics
POL	4103	Latin America and the World

### **Political Theory**

POL	3103	Political Ideology
POL	3113	American Political Theory
POL	3133	Political Philosophy: Ancient and Medieval
POL	3143	Political Philosophy: Modern
POL	3153	Political Philosophy: Contemporary
POL	3163	Introduction to Feminist Theory
POL	3193	Theories of Citizenship
POL	3203	African American Political Thought

### **Public Administration**

POL	3413	The Politics of Urban Development
POL	3603	Public Policy Formulation and Implementation
POL	3613	Public Budgeting and Taxation
POL	3623	Public Policy Evaluation
POL	3703	Personnel Administration in the Public Sector
POL	4323	Administrative Law

### **Public Law**

POL	3013	The American Legal Process
POL	3023	Civil Liberties in American Law and Practice
POL	3223	Judicial Politics
POL	3323	Constitutional Law
POL	4123	Legal and Philosophical Reasoning
POL	4153	Seminar in Jurisprudence
POL	4323	Administrative Law

Internship hours cannot count toward the minor.

To declare a Minor in Political Science, obtain advice, or seek approval of substitutions for course requirements, students should consult the College of Liberal and Fine Arts Advising Center.

## COURSE DESCRIPTIONS POLITICAL SCIENCE (POL)

### **1013 Introduction to American Politics**

(3-0) 3 hours credit.

A broad survey of the basic elements of American and Texas politics. Attention is given to the normative and Constitutional foundations of the political culture, the development of major governmental institutions, political organizations and processes, and major policy outputs. (Formerly POL 1053. Credit cannot be earned for both POL 1013 and POL 1053.) [TCCN: GOVT 2301.]

### **1133 Texas Politics and Society**

(3-0) 3 hours credit.

Topics may include discussions of the Texas and U.S. Constitutions; the role of state in the federal system; the diverse demographic, economic, and cultural bases of state politics; elections, interest groups, and elites; and legislative, executive, judicial, urban, and county politics. [TCCN: GOVT 2306.]

### **1213 Topics in Texas and American Politics**

(3-0) 3 hours credit.

An examination of a selection of specific topics or set of issues in Texas and American politics. May be repeated for credit when topics vary, not to exceed 9 semester credit hours. (Credit cannot be earned for POL 1023, POL 1063, POL 1083, POL 1173, or POL 2023, and sections of POL 1213 on the same topic.) [TCCN: GOVT 2302.] *Some topics may include:*

#### **The Politics of the American Economy**

Theory and practice of classical and modern political economy. Historical interaction between American capitalism and political structures, processes, and public policy. Topics may include current fiscal, monetary, and other regulatory policies in economic context.

#### **Ethics in America**

This topic examines some of the central ethical theories throughout history, including virtue-based ethics, rights-based ethics, utilitarianism, and feminist ethics. Particular attention will be paid to the application of ethical theories to contemporary topics such as environmentalism, animal rights, abortion, affirmative action and biotechnology. Writers examined may include Plato, Immanuel Kant, John Stuart Mill, Carol Gilligan, and Peter Singer.

#### **The United States in the World**

The development of conceptions of the United States' role in the world. The foreign policy decision-making process and its legal and constitutional basis. The relationship of domestic politics to the conduct of foreign policy.

#### **States, Communities, and Public Policy**

This course presents basic state and local political structures and processes, placing Texas in a broader comparative framework. Its principal emphasis is on the social and economic policies involving both federal and state or local components.

#### **Civil Rights**

This course explores the politics of civil rights in the United States and Texas, giving special attention to the federal and state constitutions. The course includes theoretical, empirical, legal, and historical analyses and examines civil rights in general with special emphasis on Latinos, African Americans, and women.

### **2503 Introduction to Political Theory**

(3-0) 3 hours credit. Prerequisite: POL 1013.

The fundamental concepts and problems of politics as viewed by the classical political philosophers and contemporary theorists: justice, power, authority, obligation, freedom, and equality.

- 2513 Public Administration and Public Policy**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
The role of bureaucratic agencies in the formulation and implementation of public policy. Organization theory and administration in the public sector. While the approach of the course is comparative, special emphasis is placed on bureaucracy in the United States.
- 2533 Introduction to Political Science**  
(3-0) 3 hours credit.  
An introduction to the discipline of political science, with particular emphasis devoted to its development from 1880 to the present. Topics may include types of political institutions, uses of political science, participation by political scientists in public affairs or public policy, and career options available to political science majors. [TCCN: GOVT 2304.]
- 2603 International Politics**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
The major issues of North-South and East-West conflicts will be explored: international aid and trade transnational enterprises; economic development and debt; military conflicts and nuclear weapons; and the new frontiers of oceanic resources, tropical forests, and outer space.
- 2623 Law and Society**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
An examination of the nature of law, its role in sociopolitical systems, and the institutional components of legal systems. Various theories and systems of law are examined. Possible topics can be drawn from general areas of legal study such as legal philosophy, critical legal studies, and comparative law, as well as from specific subject areas such as natural, constitutional, common, civil, customary, socialist, and theocratic law.
- 2633 Comparative Politics**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
A comparative examination of the diverse forms, goals, styles, and practices of government in democratic and authoritarian states. Several major polities will be studied in detail.
- 2703 Scope and Methods in Political Science**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
An introduction to methods of conducting and interpreting research in political science. Topics include principles of the philosophy of science; research designs, statistical concepts and techniques (conceptualization, operationalization, and measurement), and data-gathering procedures; data analysis; and qualitative methods. May also include standard computer packages and secondary data analysis. (Formerly SSC 3013. Credit cannot be earned for both POL 2703 and SSC 3013.)
- 3013 The American Legal Process**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
An introduction to how the United States legal system is organized and functions. A broad overview of the system and its actors is combined with a focus on particular areas of the law such as domestic relations, personal injury liability litigation, criminal procedure, and alternative dispute resolution.
- 3023 Civil Liberties in American Law and Practice**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
An analytical, normative, and empirical examination of civil liberties and rights in the United States. Topics may include freedom of speech, religion, and assembly, equal protection of the laws, due process, and privacy. (Formerly POL 2023. Credit cannot be earned for both POL 3023 and POL 2023.)

**3033 International Governance**

(3-0) 3 hours credit. Prerequisite: POL 1013.

International law, organizations, regimes, hierarchies, and norms such as sovereignty govern the international system. These factors help create a world order that limits armed conflict, regulates the world economy, advances environmental protection, and sets human rights standards. This course explains theories of international governance, and compares these perspectives to the analysis of political scientists on the past record and likely future of world order concerning international conflict, economics, environment, and human rights.

**3043 Human Rights**

(3-0) 3 hours credit. Prerequisite: POL 1013.

This course explores the philosophical and political meaning of fundamental human rights; cases of human rights violations (such as genocide in the Holocaust, Rwanda, Kosovo, and Cambodia; the death penalty; female genital mutilation; violations of workers' rights; and torture); and the role that states, international organizations and individuals can play in ending human rights abuses. Course readings may include contemporary theories of human rights and case studies on the enforcement of rights around the world.

**3053 United States–Latin American Relations**

(3-0) 3 hours credit. Prerequisite: POL 1013.

This course studies the evolution of relations between the United States of America and Latin American since 1824 to the present. It offers both the viewpoints of the U.S. government and Americans on Latin America and the viewpoints of Latin Americans on the government and people of the United States of America.

**3063 Comparative Political Participation**

(3-0) 3 hours credit. Prerequisite: POL 1013.

This course examines the citizen participation in the democratic process across industrialized democracies, including the United States. The course covers participation within mainstream channels of the democratic process, such as voting and campaign participation, and also participation in unconventional activities such as social movements and protests.

**3073 African American Politics**

(3-0) 3 hours credit. Prerequisite: POL 1013.

This course will examine African American political involvement in the American political system. It includes the political history of African Americans from the Civil War to the present day. Emphasis is placed on African American involvement at the national political level.

**3083 Race and Ethnic Politics in the United States**

(3-0) 3 hours credit. Prerequisite: POL 1013.

The role of ethnic and racial minorities in the politics of the United States; the responsiveness of existing political structures to ethnic problems; ethnic political organizations and influence.

**3093 Mexican American Politics**

(3-0) 3 hours credit. Prerequisite: POL 1013.

An opportunity to study Mexican American participation in the electoral process, political and economic institutions, labor organizations, and alternative modes of political action.

**3103 Political Ideology**

(3-0) 3 hours credit. Prerequisite: POL 1013.

This course is an examination of the political ideologies that shape contemporary political debate. Ideologies may include liberalism, libertarianism, socialism, communitarianism, neoconservatism, feminism, environmentalism, and critical race perspectives. Authors may include Marx, Mill, Rawls, Nozick, Sandel, MacKinnon, and others.

**3113 American Political Theory**

(3-0) 3 hours credit. Prerequisite: POL 1013.

The political theory of the Constitution, the Federalist Papers, Adams, Jefferson, Paine, Calhoun, Thoreau, Social Darwinism, Pragmatism, and 20th-century political thought.

- 3123 Political Psychology**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
Political psychology seeks to explain the behavior of political leaders and mass publics by focusing on the psychological underpinnings of such behavior—their personalities, identities, values, attitudes, and feelings. Attention will be given to the interaction of these factors within different political environments. Topics may include political socialization; personality and political leadership; the psychology of small group decision making; the psychology of mass participation; and affect and cognition in political judgement.
- 3133 Political Philosophy: Ancient and Medieval**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
The major works of Western political philosophy from ancient times to the Renaissance. Writers examined may include Plato, Aristotle, Thucydides, Augustine, and Machiavelli.
- 3143 Political Philosophy: Modern**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
The major works of political philosophy from the Renaissance to the 19th century. Writers examined may include Hobbes, Locke, Rousseau, Hegel, Marx, and Mill.
- 3153 Political Philosophy: Contemporary**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
Political thought from the late 19th century to the present. Topics examined may include contemporary Marxism and critical theory, analytic political theory, positivism and social science, phenomenological approaches, existentialism, and contemporary ethics.
- 3163 Introduction to Feminist Theory**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
A reading-intensive, upper-level lecture course for political science majors and women's studies minors, introducing students to feminist approaches to theory. Covers feminist critiques of some of the dominant traditions in Western political and social theory as well as ways in which women have begun to construct theories from their own distinctive perspectives within the intersecting hierarchies of race, class, and gender.
- 3183 Women in Politics**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
An examination of the roles and forms of participation of women in contemporary American politics. Topics may include the fight for civil rights and equality; media portrayals of women in politics; women as candidates and as voters; women as elected officials, activists, and political professionals; and women in the military, including theories of gender and war.
- 3193 Theories of Citizenship**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
A political philosophy approach to the concept of citizenship. The philosophical underpinnings of citizenship will be analyzed in this class from a race, class, gender, and gay perspective. The notion of nation-states and their exclusive and arbitrary standards of what rights belong to people and to which people will be examined and at times challenged in the context of contemporary politics, American as well as global. In this examination the discussion will go beyond rights and into process. In other words, citizenship will be examined from a participatory, as well as rights, perspective.
- 3203 African American Political Thought**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
This course examines diverse African American political thought spanning the history of the U.S. political and social thought examined may include diverse writings from Booker T. Washington, W.E.B. Dubois, Marcus Garvey, Sojourner Truth, David Walker, Elijah Muhammad, Martin Luther King Jr., Malcolm X, Kimberlé Crenshaw, Angela Davis, Cornell West, Clarence Thomas, Lani Guinier, Patricia Williams, Louis Farrakhan, and Eldridge Cleaver.

**3213 Business and Politics in the Third World**

(3-0) 3 hours credit. Prerequisite: POL 1013.

Business-government relations in Third World nations at a time of deep policy changes initiated in the 1980's. Major theories of business-government relations and their explanatory validity for Third World nations. Particular emphasis may be given to Latin America and Asia and their dynamic emerging markets.

**3223 Judicial Politics**

(3-0) 3 hours credit. Prerequisite: POL 1013.

Political behavior of the major participants in the judicial process: judges, attorneys, juries, defendants, and litigants; the political and administrative context of the judicial process; judicial-executive and judicial-legislative relations; the impact of court decisions.

**3234 Political Campaigns and Elections**

(3-2) 4 hours credit. Prerequisite: POL 1013.

A study of the ways in which public officials are recruited and elected in the United States and other democracies. Campaign strategy and tactics; nominations and primaries; the legal framework of elections; the problem of constituency; voting studies; campaign finance. Three lecture and two laboratory hours per week. (Formerly POL 3233. Credit can be earned for both POL 3234 and POL 3233 with special permission.)

**3244 Mass Media and Public Opinion**

(3-2) 4 hours credit. Prerequisite: POL 1013.

Explores the acquisition of political attitudes, the role of the mass media in society and politics, and the relationship between political attitudes and values, the mass media, and public policy. (Formerly POL 3243 and POL 3253. Credit cannot be earned for both POL 3244 and either POL 3243 or POL 3253.)

**3253 Participation and American National Elections**

(3-0) 3 hours credit. Prerequisite: POL 1013.

An introduction to fundamentals of American electoral politics. Topics will include psychological/sociological and economic models of participation, the presidential primary process, the effectiveness of presidential and congressional campaigns on the vote, psychological/sociological and economic models of the presidential and congressional vote, the incumbency advantage in congressional elections, spending in congressional elections, candidate entry, and comparison of House and Senate elections.

**3283 The American Presidency**

(3-0) 3 hours credit. Prerequisite: POL 1013.

The U.S. president's role in the American political system. Topics may include the constitutional framework and historical development of presidential powers, presidential personality, and legislative, foreign policy, and war-making powers.

**3293 Political Movements**

(3-0) 3 hours credit. Prerequisite: POL 1013.

This course examines the origins, mobilizing tactics, and goals of political movements. Movements that may be investigated are the movements of labor, students, women, blacks, environmentalists, and other.

**3303 Race, Ethnicity and Public Policy**

(3-0) 3 hours credit. Prerequisite: POL 1013.

The objective of this course is to familiarize students with a range of discourses to understand the complexities of racial and ethnic inequalities in the United States as well as the history and current state of racial and ethnic politics. The course examines the politics and experiences of several groups, such as African Americans, Hispanics, American Indians, and Asian Americans. It also reviews the wide range of public policy issues as they affect, and are affected by, racial and ethnic considerations. (Formerly SSC 3253. Credit cannot be earned for both POL 3303 and SSC 3253.)

**3323 Constitutional Law**

(3-0) 3 hours credit. Prerequisite: POL 1013.

An examination of major constitutional issues, past and present, through the intensive study of leading cases. Recommended for pre-law students.

- 3353 Leadership and Elites**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
An examination of national political executives in parliamentary and presidential democracies and in authoritarian states. Topics examined may include the selection process, decision making, leadership and bureaucracy, executive-legislative relations, and neocorporatism.
- 3363 Political Parties and Interest Groups**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
The purpose of political parties in the political process. Interest groups and their roles in government and public policy.
- 3373 The Legislative Process**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
The functions, structures, and politics of legislatures and their relationships to their constituencies and other branches of government.
- 3393 Latin American Politics**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
An examination of political institutions and their relationship to social and economic change in Latin America. Profiles of major Latin American countries, such as Mexico, Brazil, Argentina, Peru, and Cuba.
- 3403 European Politics**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
The interplay of politics with the changing social and economic environment in the advanced industrial societies of Western Europe. Elites, participation, governmental structures, party systems, interest groups, and public policy will be examined in several selected polities and the Common Market.
- 3413 The Politics of Urban Development**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
An opportunity to pursue a political-economic analysis of the metropolis, focusing on the problems and conflicts stemming from urban growth and stagnation. Topics examined may include uneven development, planning, industrial development policy, taxation, and intergovernmental rivalry. Case studies may be drawn from societies other than the United States.
- 3423 Geopolitics of Russia and Eurasia**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
Multidisciplinary introduction and regional study of the Russian Federation and the Eurasian realm, including the Caucasus, Central Asian nations, Afghanistan, and Mongolia. Both the geography and the politics of this area will be analyzed. Historical and contemporary geopolitical topics include nation-building, regional civilizations, revolution, terrorism, the 19th-century "Great Game," the rise of the USSR, and the current transition of the Russian Federation to an uncertain future. (Same as GRG 3423. Credit cannot be earned for both POL 3423 and GRG 3423.)
- 3433 Governments and Politics of Southeast Asia**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
A comparative examination of the political systems of selected Southeast Asian countries and their efforts to deal with political, economic, and social change. Countries studied may include Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam.
- 3443 Governments and Politics of East Asia**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
A comparative examination of the political systems of selected East Asian countries and their efforts to deal with problems of political, economic, and social change. Countries studied may include the People's Republic of China, the Republic of China, and South Korea. (Formerly titled "Asian Politics"; credit cannot be earned for both.)

**3453 The Politics of Mexico**

(3-0) 3 hours credit. Prerequisite: POL 1013.

Background to the contemporary political system of Mexico, including Independence, foreign intervention, the Diaz regime, and the 1910–17 revolution. Other topics may include the constitution, the structure of government, political parties, the presidency, economic development and policy, contemporary leadership, and elites.

**3463 Politics of the Third World**

(3-0) 3 hours credit. Prerequisite: POL 1013.

The political system of various Third World nations. An inquiry into the political and economic problems of these countries, such as development, instability, and political change.

**3473 Theories and Problems in Latin American Politics**

(3-0) 3 hours credit. Prerequisite: One of the following: POL 3393, POL 3453, HIS 2533; or consent of instructor.

Advanced survey of major theories and problems in Latin American political and economic development. Theories of dependency, corporatism, bureaucratic authoritarianism, and transitions of democracy. Selected problems such as political stability, land reform, economic integration, multinational corporations, inflation, foreign debt, revolution and reform, and the military in politics.

**3483 International Political Economy**

(3-0) 3 hours credit. Prerequisite: POL 1013.

This course is an introduction to the institutions and policies that govern international economic relations. Students will study the development of the international economic system as well as controversies over money, trade, and governance.

**3493 Politics of the Middle East**

(3-0) 3 hours credit. Prerequisite: POL 1013.

An examination of past, present, and future of Middle East politics, with an emphasis on culture, politics, religion, and conflicts in the area; the international relations of Middle Eastern countries as well as superpowers' involvement.

**3503 American Foreign Policy since World War II**

(3-0) 3 hours credit. Prerequisite: POL 1013.

Major private interests and public institutions involved in American foreign policy-making; public opinion and foreign involvement; specific policies toward international organizations and major world regions.

**3513 International Organizations**

(3-0) 3 hours credit. Prerequisite: POL 1013.

Major issues involving international organizations: nationalism and globalism; financing problems; international staffing; voting patterns; peace-keeping; and international conferences. Organizations examined include the United Nations system, regional development banks, alliance systems, cartels, and common markets.

**3523 Force in International Politics**

(3-0) 3 hours credit. Prerequisite: POL 1013.

An examination of modern research into the use of coercion in international relations, specifically economic sanctions, war, and terrorism. Special emphasis will be placed on the causes, trends, and consequences of interstate wars. Peace movements and the technologies of peace making will also be covered.

**3553 Social Policy in Modern Welfare States**

(3-0) 3 hours credit. Prerequisite: POL 1013.

History and development of social policies in modern societies. Policy areas covered may include Social Security, health care, poverty and income maintenance, housing, education, employment, and child care.

- 3563 Current Issues in World Politics**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
An examination of the issues that divide the people of the world. The structure of contemporary world problems will be studied and possible strategies for the reduction of international conflict will be assessed. Topics may include nuclear proliferation, world hunger, revolution and intervention, transnational enterprises, competing ideologies of international relations, and global ecology (Formerly POL 2083. Credit cannot be earned for both POL 3563 and POL 2083).
- 3573 Politics of the Contemporary City**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
An introduction to urban America from a multidisciplinary perspective. Attention is given to the economic, social, political, and environmental factors that have produced the physical form and institutional arrangements of the contemporary city. Problems and opportunities currently facing American cities. (Formerly SSC 3113. Credit cannot be earned for both POL 3573 and SSC 3113.)
- 3603 Public Policy Formulation and Implementation**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
An analysis of public policy formulation and implementation in social and political contexts. The implications of the policy process for democracy. Problem areas may include energy, health, the environment, and the fiscal crisis.
- 3613 Public Budgeting and Taxation**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
An examination of the process and politics of public budgeting and taxation, and of the bureaucratic behavior accompanying them.
- 3623 Public Policy Evaluation**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
The process and politics of public policy evaluation. The methodology of program evaluation will be examined as well as the political problems associated with policy evaluation. Case studies of specific government programs will be examined.
- 3633 Political Economy**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
The political, legal, and ethical context of modern commercial society is explored through the evolution of conceptions of the economy, the individual, and the state. Topics may include the institutional foundations of market societies, ethical and legal impact of business practices, comparisons of national economic policies, the interaction of modern government and economic activity, and the impact of markets on concepts of public and private life. (Formerly SSC 3303. Credit cannot be earned for both POL 3633 and SSC 3303.)
- 3703 Personnel Administration in the Public Sector**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
A survey of personnel management in the public sector. Topics examined may include recruitment; civil service and patronage appointments; career development; personnel utilization; conflict of interest questions; employee organization and relations; and affirmative action.
- 4103 Latin America and the World**  
(3-0) 3 hours credit. Prerequisite: One of the following: POL 3393, POL 3453, POL 3473, HIS 2533; or consent of instructor.  
Advanced study of the past, present, and future roles of Latin America in the world arena. An examination of relations between Latin America and other Third World nations, countries of the Pacific Basin, the United States, and Canada.

**4123 Legal and Philosophical Reasoning**

(3-0) 3 hours credit. Prerequisite: POL 1013.

An intensive analysis of selected philosophical texts focusing on law and justice. Students are challenged to develop critical reading and thinking skills by studying the texts of philosophers such as Plato, Aristotle, Dworkin, Hart, and/or others who outline difficult arguments and unfamiliar ideas. Emphasis is placed on drawing reasoned conclusions, advocating positions, and expressing oneself in oral and written forms. (Same as LGS 4123. Credit cannot be earned for both POL 4123 and LGS 4123.)

**4153 Seminar in Jurisprudence**

(3-0) 3 hours credit. Prerequisite: POL 1013.

An analytic inquiry into the normative, empirical, and ideological underpinnings of law. The functions, nature, and utilities of law in various social and conceptual schemes. Alternatives to formal law and jural dispute settling.

**4323 Administrative Law**

(3-0) 3 hours credit. Prerequisite: POL 1013.

A survey of those aspects of public law of particular relevance to public administration, analyzing such problem areas as the delegation of authority; formal accountability; open records and confidentiality; and responsiveness to democratic value in decision making.

**4703 Advanced Scope and Methods**

(3-0) 3 hours credit. Prerequisite: POL 2703. (Completion of POL 2703 with a "C" or better is recommended.)

An examination of modes of inquiry in political science. After an introduction to basic issues in the philosophy of science (e.g., discovery, explanation, theory, differences between the natural and social sciences, etc.), special emphasis will be given to the examination of a variety of investigatory approaches in political science (e.g., the institutional approach, the behavioral approach, rational choice theory, etc.), and a variety of methodological issues germane to investigation in political science (e.g., qualitative analysis, quantitative analysis, comparative analysis.)

**4911-3 Independent Study**

1 to 3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, the Department Chair, and the Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4933,6 Internship in Political Science**

3 or 6 hours credit. Prerequisite: Consent of internship coordinator and Department Chair.

Supervised experience relevant to political science within selected community organizations. A maximum of 6 semester credit hours may be earned through the internship.

**4953 Special Studies in Political Science**

(3-0) 3 hours credit. Prerequisite: POL 1013.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4973 Seminar in Political Science**

(3-0) 3 hours credit. Prerequisites: POL 1013 and 18 semester credit hours in POL or consent of instructor.

The opportunity for an intensive study of a selected topic. Primary emphasis on supervised research on various aspects of the topic. May be repeated for credit when topics vary. Enrollment limited to juniors and seniors majoring in political science.

**4993 Honors Thesis**

3 hours credit. Prerequisites: Enrollment limited to candidates for Honors in Political Science during the last two semesters; completion of honors examination and consent of the Honors College.

Supervised research and preparation of an honors thesis. May be repeated once with advisor's approval.

## Minor in African American Studies

The Minor in African American Studies provides an interdisciplinary approach to the political, cultural, historical, and social experiences of African Americans in the United States. Research methods drawn from several disciplines enable students to enhance their understanding of African Americans' unique social circumstances and heritage, and acquire a deeper comprehension of the politics, culture, and history of the nation as a whole.

All students pursuing a Minor in African American Studies must complete 18 semester credit hours, at least 12 hours of which must be at the upper-division level.

A. 6 semester credit hours selected from the following required courses:

AAS	2013	Introduction to African American Studies
		or
AMS	2103	Introduction to African American Studies
AAS	4013	Topics in African American Studies

B. 3 semester credit hours selected from the following:

AMS	3343	Studies in Race and Ethnicity
ENG	3613	African American Literature
POL	1213	Topics in Texas and American Politics: Civil Rights
POL	3073	African American Politics
POL	3083	Ethnic Politics in the United States
SOC	3043	Race and Ethnic Relations

C. 9 semester credit hours selected from the following categories (i.e., 3 semester credit hours from categories 1, 2, and 3 below):

1. 3 semester credit hours of politics, economy, or geography:

GRG	1023	World Regional Geography (When subtitled: African American and African focus)
GRG	3213	Cultural Geography
GRG	3513	Urban Geography
POL	1213	Topics in Texas and American Politics: Civil Rights
POL	3073	African American Politics
POL	3083	Ethnic Politics in the United States
POL	3203	African American Political Thought
POL	3303	Race, Ethnicity, and Public Policy
POL	3573	Politics of the Contemporary City

Other course substitutions require preapproval of the advisor and Department Chair.

2. 3 semester credit hours of history, law, or society:

AMS	3343	Studies in Race and Ethnicity
CRJ	4313	Minorities and Women in the Criminal Justice System
EDU	2103	Education in U.S. Society
HIS	3133	Themes in the Social History of the United States
HIS	3343	Modern Central America and the Caribbean
HIS	3563	African American History to the Civil War
HIS	3573	African American History since the Civil War
HIS	3593	Race, History, and the Making of the American South
HIS	3603	Africa in Colonial and Post-Colonial Contexts
HIS	3613	African Politics, States and Empires

HIS	3623	History of the Civil Rights Movement
LGS	3113	Blacks, Chicanos, and the Law
POL	3023	Civil Liberties in American Law and Practice (when subtitled: “Focus on the Black Experience” in class schedule)
SOC	3043	Race and Ethnic Relations
SOC	3383	Sociology of the African American Community
SOC	4443	Race/Ethnicity, Class, Gender, and Sexuality

Other course substitutions require preapproval of the advisor and Department Chair.

3. 3 semester credit hours of expressive culture (literacy, cultural, and artistic practices):

AMS	3343	Studies in Race and Ethnicity
BBL	2033	Multiculturalism in the Southwest
BBL	3403	Cultural and Linguistic Diversity in a Pluralistic Society
ENG	2383	Multi-Ethnic Literatures of the United States
ENG	3613	African American Literature
ENG	3713	Topics in Multiethnic Literatures of the United States (when subtitled: “African American Literature”)
MUS	2663	History and Styles of Jazz

Other course substitutions require preapproval of the advisor and Department Chair.

Students may take the following courses under section C with approval of Department Chair:

AAS	4913	Independent Study
AAS	4933	Internship in African American Studies

To declare a Minor in African American Studies, obtain advice, or seek approval of substitutions for course requirements, students should consult the College of Liberal and Fine Arts Advising Center.

## COURSE DESCRIPTIONS AFRICAN AMERICAN STUDIES (AAS)

**2013 Introduction to African American Studies**

(3-0) 3 hours credit.

Offers an interdisciplinary introduction to major topics in African American Studies. Course materials will address basic contours of the black experience in the United States. Topics that may be investigated include historical, autobiographical, political, cultural, sociological, literacy, and/or popular responses to and representation of the African Americans in the United States. (Same as AMS 2103. Credit cannot be earned for both AAS 2013 and AMS 2103.)

**3013 African American Modes of Expression**

(3-0) 3 hours credit.

This course examines modes of expression in the African American experience. The primary focus of the course can be language, art, music, or other forms of cultural expression. The substantive and disciplinary emphasis can vary from one semester to another. (May be repeated for credit if the content, emphasis, and disciplinary cross listing change with the consent of advisor, Department Chair, and Dean.)

**4013 Topics in African American Studies**

(3-0) 3 hours credit.

This course analyzes historical and contemporary issues and phenomena associated with African Americans. It explores different methodological approaches by inquiring about these issues and phenomena, and presents varying arguments and ideological positions concerning these public-affairs matters. May be repeated for credit when topics vary. Two or more topics courses may be taken concurrently.

**4911-3 Independent Study**

1 to 3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Department Chair and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree. A maximum of 3 semester credit hours may be applied to the minor.

**4933 Internship in African American Studies**

3 hours credit. Prerequisite: Consent of internship coordinator.

Supervised experience relevant to African American studies within selected community organizations. A maximum of 3 semester credit hours may be applied to the minor.

**Minor in International Studies**

The Minor in International Studies offers students the opportunity to combine a major in a standard discipline with an interdisciplinary examination of the contexts and structures of relationships among nations.

All students pursuing a Minor in International Studies must complete 18 semester credit hours.

A. 3 semester credit hours selected from the following:

INS	2403	Introduction to International Study
POL	2533	Introduction to Political Science
POL	2603	International Politics

B. 15 semester credit hours; 12 hours of which must be at the upper-division level, and 3 semester credit hours must be taken from three of the four different categories below:

1. Geography or History:

GRG	1023	World Regional Geography
GRG	3133	Geography of the United States and Canada
GRG	3143	Geography of Mexico
GRG	3213	Cultural Geography
GRG	3423	Geopolitics of Russia and Eurasia
GRG	3433	The Geography and Politics of the Asian Rim
GRG	3533	Geography of Economic Activity
GRG	3613	Conservation of Resources
GRG	3633	Geography of Development
HIS	2533	Introduction to Latin American Civilization
HIS	2543	Introduction to Islamic Civilization
HIS	2553	Introduction to East Asian Civilization
HIS	2563	Introduction to European Civilization
HIS	2573	Introduction to African Civilization
HIS	2583	Introduction to South Asian Civilization
HIS	3243	Europe in the Nineteenth Century
HIS	3283	Twentieth-Century Europe
HIS	3303	History of Mexico
HIS	3343	Modern Central America and the Caribbean
HIS	3353	Latin America since Independence

HIS	3373	Revolution in Latin America
HIS	3523	European Cultural History
HIS	3603	Africa in Colonial and Post-Colonial Contexts
HIS	3613	African Politics, States and Empires
HIS	3643	Modern Spain
HIS	3753	The Soviet Union and After
HIS	3823	History of American Foreign Relations
HIS	3943	Modern India, Pakistan, and Bangladesh
HIS	4403	Southern South America
IDS	2213	World Civilization since the Fifteenth Century

## 2. Economics, Finance or Marketing International Business:

ECO	3193	The International Economy
ECO	4303	Economic Problems of Developing Countries
FIN	4613	Introduction to International Finance
MGT	4073	International Management
MGT	4083	Comparative International Management Practices
MKT	4073	International Marketing

## 3. Humanities, Intercultural Communication and Fine Arts:

AHC	1123	Survey of Art and Architecture in Europe and the New World from 1350 to 1750
AHC	1133	Survey of Modern Art
AHC	3123	Northern European Art: Fifteenth and Sixteenth Centuries
AHC	3423	Pre-Columbian Art and Architecture of Mesoamerica
AHC	4113	Contemporary Art
ARC	2413	History of Architecture: Antiquity Through Medieval
ARC	2423	History of Architecture: Renaissance Through Nineteenth Century
COM	3553	Intercultural Communication
COM	3563	International Communication
CSH	1203	Introduction to Hispanic Cultures
CSH	1213	Topics in World Cultures
GER	4213	Topics in German Culture and Linguistics
HUM	2093	World Religions
HUM	3623	Topics in National Cultures and Civilizations
IDS	2313	World Literature II: Since the Sixteenth Century
PHI	3073	Asian Philosophy
SPN	2523	Hispanic Culture and Communication
SPN	3613	Spanish Culture and Civilization
SPN	3623	Latin American Culture and Civilization

## 4. Social Sciences:

ANT	3363	Indians of Mesoamerica
ANT	4263	Social and Cultural Change
CRJ	4433	Police and National Security Intelligence
INS	4953	Topics in International Studies
POL	2603	International Politics
POL	2633	Comparative Politics
POL	3033	International Governance
POL	3043	Human Rights
POL	3063	Comparative Political Participation
POL	3393	Latin American Politics
POL	3403	European Politics
POL	3423	Geopolitics of Russia and Eurasia
POL	3433	Governments and Politics of Southeast Asia

POL	3443	Governments and Politics of East Asia
POL	3453	The Politics of Mexico
POL	3463	Politics of the Third World
POL	3473	Theories and Problems in Latin American Politics
POL	3483	International Political Economy
POL	3493	Politics of the Middle East
POL	3503	American Foreign Policy since World War II
POL	3513	International Organizations
POL	3523	Force in International Politics
POL	3563	Current Issues in World Politics
POL	4103	Latin America and the World
PSY	3053	Cross-Cultural Psychology
SOC	3533	Border and Transnational Relations
SOC	4033	Historical and Comparative Sociology

C. Two college semesters or the equivalent in a single foreign language

To declare a Minor in International Studies, obtain advice, or seek approval of substitutions for course requirements, students should consult the College of Liberal and Fine Arts Advising Center.

## COURSE DESCRIPTIONS INTERNATIONAL STUDIES (INS)

### **2403 Introduction to International Study**

(3-0) 3 hours credit.

Examination of international and multicultural issues through the perspectives of core disciplines. Study includes lectures, discussions, reading and films on culture, culture shock, and cross-cultural communication; American and foreign values; language issues; and investigations of issues related to a particular nation and culture. (Formerly INT 2403. Credit cannot be earned for both INS 2403 and INT 2403.)

### **4911-3 Independent Study**

1 to 3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Department Chair, and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

### **4953 Topics in International Studies**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree. (Formerly INT 4953.)

## **Minor in Legal Studies**

All students pursuing a Minor in Legal Studies must complete 21 semester credit hours, at least 12 hours of which must be at the upper-division level. Questions about the Minor in Legal Studies should be directed to the Advising Center in the College of Liberal and Fine Arts or the Institute for Law and Public Affairs.

A. 12 semester credit hours of required courses:

1. LGS 2013 Introduction to Legal Studies  
or  
POL 2623 Law and Society

2. ENG 2413 Technical Writing
3. LGS 3013 Legal Research and Writing  
or  
CRJ 3613 Legal Research and Writing
4. LGS 4013 Issues in Law and Society

B. 9 additional semester credit hours (at least 6 of which must be at the upper-division level) from the following list, in at least three disciplines other than the student's major:

ANT	3733	Political and Legal Anthropology
BLW	3013	Business Law
BLW	4953	Special Studies in Business Law
BIO	4073	Law, Ethics, and the Life Sciences
COM	3113	Argumentation and Debate
CRJ	2813	Introduction to Courts and the Legal System
CRJ	3623	Substantive Criminal Law
CRJ	3633	Trial and Evidence
CRJ	4633	Constitutional Criminal Procedure
CRJ	4743	Crime in Fiction
CRJ	4863	Special Topics in Legal Issues and Adjudication
HIS	3093	United States Constitutional History
HIS	3183	Law and American Development
LGS	3113	Blacks, Chicanos and the Law
LGS	4123	Legal and Philosophical Reasoning
LGS	4913	Independent Study
LGS	4933	Internship in Legal Studies
PHI	2043	Introductory Logic
POL	3013	The American Legal Process
POL	3023	Civil Liberties in American Law and Practice
POL	3323	Constitutional Law
POL	4153	Seminar in Jurisprudence
POL	4323	Administrative Law
PSY	4303	Psychology and the Law

To declare a Minor in Legal Studies or to obtain advice, information, or approvals for course requirement substitutions, students should consult the Advising Center in the College of Liberal and Fine Arts.

## COURSE DESCRIPTIONS

### LEGAL STUDIES (LGS)

#### **2013 Introduction to Legal Studies**

(3-0) 3 hours credit.

An introduction to legal studies from an interdisciplinary perspective, exploring historical and contemporary aspects of the content, operations, and effects of law in societies.

#### **3013 Legal Research and Writing**

(3-0) 3 hours credit.

Provides students with the opportunity to explore the modes and sources of legal research, both traditional and electronic. CRJ 3613 Legal Research and Writing may be substituted for LGS 3013 in the LGS minor. (Same as CRJ 3613. Credit cannot be earned for both LGS 3013 and CRJ 3613.)

- 3113 Blacks, Chicanos, and the Law**  
(3-0) 3 hours credit.  
This course examines the litigation, caselaw, legislation, and legal literature associated with African Americans and Mexican Americans in the United States.
- 4013 Issues in Law and Society**  
(3-0) 3 hours credit.  
Provides students with the opportunity to conduct research on selected issues associated with the law and society. May be repeated for credit when topics vary, with permission of the Director of the Institute for Law and Public Affairs.
- 4123 Legal and Philosophical Reasoning**  
(3-0) 3 hours credit  
An intensive analysis of selected philosophical texts focusing on law and justice. Students are challenged to develop critical reading and thinking skills by studying the texts of philosophies such as Plato, Aristotle, Dworkin, Hart, and/or others who outline difficult arguments and unfamiliar ideas. Emphasis is placed on drawing reasoned conclusions, advocating positions, and expressing oneself in oral and written forms. (Same as POL 4123. Credit cannot be earned for LGS 4123 and POL 4123.)
- 4913 Independent Study**  
3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Director of the Institute for Law and Public Affairs, and Dean of the College of Liberal and Fine Arts.  
Independent reading, research, discussion, and writing under direction of a faculty member. May be repeated for credit, but not more than 6 credit hours of independent study, regardless of discipline, will apply to a bachelor's degree. A maximum of 3 semester credit hours may be applied to the minor.
- 4933 Internship in Legal Studies**  
3 hours credit. Prerequisite: Consent of internship coordinator at the Institute for Law and Public Affairs, faculty supervisor, and Director of the Institute for Law and Public Affairs.  
Supervised experience relevant to legal studies within selected community organizations. A maximum of 3 semester credit hours may be applied to the minor.

### Minor in Public Administration

All students pursuing a Minor in Public Administration must complete 18 semester credit hours, 9 hours of which must be at the upper-division level.

A. 3 semester credit hours are required:

POL 2513 Public Administration and Public Policy

B. 3 additional semester credit hours of research methods selected from the following:

CRJ 3013 Research Design and Analysis in Criminal Justice  
ECO 3123 Forecasting Techniques in Business and Economics  
GRG 3323 Spatial Analysis  
POL 2703 Scope and Methods in Political Science  
SOC 3313 Conceptualization and Measurement in Sociology

C. 3 additional semester credit hours selected from the following:

ECO 2003 Introduction to Political Economy\*  
LGS 3013 Legal Research and Writing  
POL 2623 Law and Society  
POL 3013 The American Legal Process  
POL 3023 Civil Liberties in American Law and Practice

POL	3323	Constitutional Law
POL	3633	Political Economy
POL	4323	Administrative Law
SOC	3173	Economy and Society

\*May be used to satisfy the Core Curriculum requirement in Domain II.D. If so, an additional 3 semester credit hours of free electives must be taken to meet the 120-semester-credit-hour minimum for the degree.

D. 9 additional semester credit hours selected from the following:

IS	3003	Principles of Information Systems for Management
MGT	3013	Introduction to Organization Theory, Behavior, and Management
POL	3303	Race, Ethnicity, and Public Policy
POL	3413	The Politics of Urban Development
POL	3553	Social Policy in Modern Welfare States
POL	3603	Public Policy Formation and Implementation
POL	3613	Public Budgeting and Taxation
POL	3623	Public Policy Evaluation
POL	3703	Personnel Administration in the Public Sector
SOC	3103	Complex Organizations

To declare a Minor in Public Administration, obtain advice, or seek approval of substitutions for course requirements, students should consult the College of Liberal and Fine Arts Advising Center.

## DEPARTMENT OF PSYCHOLOGY

### DEPARTMENT HONORS

The Department of Psychology awards Honors in Psychology to certain of its outstanding students and provides the opportunity for advanced study under close faculty supervision.

Selection of students for honors designation is based on the student's academic performance and recommendation by the faculty in the student's major discipline. To be eligible for the program, students must have a minimum overall grade point average of 3.0 at UTSA and a minimum grade point average of 3.5 in Psychology at UTSA. The minimum grade point averages must be maintained for students to receive the approval of the department faculty. Students applying for Honors in Psychology are expected to enroll in the appropriate honors thesis course during their final two semesters. The completed thesis must be approved by the supervising faculty sponsor and another departmental faculty member.

Students interested in this program should contact their faculty advisors for additional information.

### **Bachelor of Arts Degree in Psychology**

The minimum number of semester credit hours required for this degree, including the Core Curriculum requirements, is 120. Thirty-nine of the total semester credit hours required for the degree must be at the upper-division level.

All candidates for this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Psychology must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<i>Mathematics</i> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. Psychology majors are encouraged to choose MTC 1023, MTC 1033, or MTC 1073 to satisfy this core requirement. <i>Science</i> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) PSY 1013 Introduction to Psychology</p> <p><b><i>Economics</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Degree Requirements

A. 36 semester credit hours in the major, 24 of which must be at the upper-division level:

1. 12 semester credit hours of lower-division courses:

- a. PSY 1013 Introduction to Psychology
- b. 6 semester credit hours selected from the following:

PSY 2503 Developmental Psychology  
 PSY 2513 Abnormal Psychology  
 PSY 2523 Personality  
 PSY 2533 Social Psychology

c. 3 semester credit hours selected from the following:

PSY 2543 Theories of Learning  
 PSY 2573 Psychology of Thought

2. 24 semester credit hours of upper-division courses:

- a. PSY 3403 Experimental Psychology  
 PSY 3413 Experimental Psychology Laboratory
- b. 6 semester credit hours selected from the following:

PSY 3103 Cognition  
 PSY 3153 Sensation and Perception  
 PSY 4113 Cognitive Development  
 PSY 4143 Memory  
 PSY 4163 Sensory Processes

PSY	4213	Social Cognition
PSY	4273	Styles of Thought
PSY	4293	Visual Information Processing
PSY	4323	Psychology of Language
PSY	4333	The Perception of Sound

- c. 12 semester credit hours of upper-division courses in psychology. No more than 3 hours of Independent Study, Internship in Psychology, or Honors Thesis may be counted toward this requirement.
- B. 12 semester credit hours of support work outside of psychology. The courses taken to meet this requirement must have a common focus and must be approved by the student's faculty advisor. A list of the sets of courses that meet this requirement is available from the student's academic advisor. This requirement may be satisfied by completing a minor outside psychology.
- C. STA 2073 Statistics for Psychology or approved substitute (Prerequisites: MTC 1023, MTC 1033, or MTC 1073, and one psychology course)

NOTE: Requirement C must be satisfied before enrolling in PSY 3403 and PSY 3413 and should be completed during the freshman or sophomore year.

- D. 27 semester credit hours of electives

### Minor in Psychology

All students pursuing a Minor in Psychology must complete 18 semester credit hours.

- A. 6 semester credit hours of required courses:

PSY	1013	Introduction to Psychology (This course may be used to satisfy the Core Curriculum requirement in Domain IIC.)
PSY	3403	Experimental Psychology (concurrent enrollment in PSY 3413 waived; prerequisite of STA 2073 or equivalent required.)

- B. 3 additional semester credit hours selected from the following:

PSY	2503	Developmental Psychology
PSY	2513	Abnormal Psychology
PSY	2523	Personality
PSY	2533	Social Psychology

- C. 3 additional semester credit hours selected from the following:

PSY	2543	Theories of Learning
PSY	2573	Psychology of Thought

- D. 6 additional upper-division semester credit hours of psychology courses, no more than 3 hours of which may be in Independent Study or Internship

To declare a Minor in Psychology, obtain advice, or seek approval of substitutions for course requirements, students should consult the undergraduate advisor in the College of Liberal and Fine Arts Advising Center.

## COURSE DESCRIPTIONS PSYCHOLOGY (PSY)

### **1013 Introduction to Psychology**

(3-0) 3 hours credit.

Introduction to the study of the mind and behavior, with attention to awareness, discrimination, sensation, perception, emotion, motivation, learning, memory, problem solving, personality, mental and behavioral development, abnormal behavior, and behavior in group settings. Psychological, social, cultural, and biological determinants of behavior are considered, together with applications of basic principles. Scientific and nonscientific approaches to the explanation of psychological phenomena are examined critically. Participation in illustrative research required. (Formerly PSY 2013. Credit may be earned for only one of the following: PSY 1013, PSY 1203, or PSY 2013.) [TCCN: PSYC 2301.]

### **1513 Knowledge and Learning**

(2-2) 3 hours credit. Does not substitute for PSY 1013 for psychology majors and minors.

Models of cognitive skill acquisition derived from research on human information processing are presented and evaluated. Lectures will focus on theoretical bases for individual differences in cognitive performance. Laboratory exercises will focus on the empirical evaluation of effectiveness of different cognitive strategies for carrying out academic tasks.

### **2001 Careers and Training in Psychology**

(1-0) 1 hour credit. Prerequisite: PSY 1013 or equivalent.

Explores career opportunities in Psychology relative to Bachelor's, Master's, and Doctoral levels of training. Students learn how best to plan their program of studies to achieve their educational and occupational goals. The different types of graduate programs in Psychology are described and the admissions process is considered in light of the most effective strategies for gaining entrance and assuring success. Must be taken on a credit/no-credit basis.

### **2503 Developmental Psychology**

(3-0) 3 hours credit. Prerequisite: PSY 1013.

Problems, methods, major theories, and results in the study of the psychological development of the individual from the prenatal period to old age. [TCCN: PSYC 2314.]

### **2513 Abnormal Psychology**

(3-0) 3 hours credit. Prerequisite: PSY 1013.

Topics may include the dynamics of abnormal behavior with attention to description, causes, and treatment of major psychological disorders, including neuroses, psychoses, personality disorders, and psychosomatic disorders.

### **2523 Personality**

(3-0) 3 hours credit. Prerequisite: PSY 1013.

Problems, methods, major theories, and results in the study of development and maintenance of typical modes of behavior and dynamics of adjustment. [TCCN: PSYC 2316.]

### **2533 Social Psychology**

(3-0) 3 hours credit. Prerequisite: PSY 1013.

Problems, methods, major theories, and results in the study of social interaction and interpersonal influence; self-identity, attitudes, role behavior, social perception, social influence, and behavior within groups. [TCCN: PSYC 2319.]

### **2543 Theories of Learning**

(3-0) 3 hours credit. Prerequisites: PSY 1013 or equivalent and MTC 1023 or equivalent.

An examination of major theories about the nature of the learning process. Discussion will focus on the construction and evaluation of models of learning. The practical and theoretical implications of research results for the acquisition, maintenance, modification, and elimination of behavior will be considered. Related memory phenomena and theories may be discussed.

- 2573 Psychology of Thought**  
(3-0) 3 hours credit. Prerequisites: PSY 1013 or equivalent and MTC 1023 or equivalent.  
An introduction to the principles of human thought as they relate to memory, comprehension, and problem solving. These principles will be used to analyze the nature of the cognitive strategies and skills that individuals develop to cope with the adaptive challenges they face.
- 3013 Psychological Measurement**  
(3-0) 3 hours credit. Prerequisites: PSY 1013 and STA 2073, or consent of instructor.  
The application of quantitative and qualitative measures to psychological data.
- 3023 Social Psychology of Small Groups**  
(3-0) 3 hours credit. Prerequisites: PSY 2533 and PSY 3403, or consent of instructor.  
Theory and modern research in the social psychology of small groups. Particular attention will be given to group formation, the nature of small group processes, and the influence of groups on behavior.
- 3053 Cross-Cultural Psychology**  
(3-0) 3 hours credit. Prerequisite: PSY 1013, ANT 1013, or ANT 2053.  
An examination of the role of culture in the development and validation of psychological theories. Critical discussion of the application of theories of human behavior developed in the United States and Western Europe to other cultural groups, including ethnic minority subgroups. Topics may include identity formation, cognitive and personality development, social and organizational behavior, intergroup relations, psychological assessment, and mental health.
- 3063 Psychological Testing**  
(3-0) 3 hours credit. Prerequisite: PSY 3403 or the equivalent.  
An introduction to the development, interpretation, and administration of psychological tests.
- 3103 Cognition**  
(3-0) 3 hours credit. Prerequisites: PSY 3403 and one of the following: PSY 2543 or PSY 2573.  
Examination of current information-processing models of human cognition. Emphasis will be placed on the processes by which stimuli are identified, by which past information is retrieved and used, and by which one's knowledge is modified.
- 3113 Motivation and Emotion**  
(3-0) 3 hours credit. Prerequisite: PSY 2533, PSY 2543, or consent of instructor.  
Topics may include examination of biological, physiological, learning, psychodynamic, cognitive, and purposive factors in the motivation of human behavior. Includes examination of nature and roles of emotion in explaining motivational processes.
- 3123 Attitudes**  
(3-0) 3 hours credit. Prerequisite: PSY 2533 or consent of instructor.  
Examination of current theory and research on the nature of attitudes, their acquisition, and processes of attitude change. Topics may include psychological foundations of attitudes, structure and function of attitudes, attitude measurement, attitude-behavior consistency, theories of attitude change, and the role of attitudes in social behavior.
- 3133 Contemporary Personality Research**  
(3-0) 3 hours credit. Prerequisite: PSY 2523 or consent of instructor.  
Examination of current theory and research on the processes underlying personality and individual differences. Topics may include temperament and biological mechanisms, self-concepts and their relationship to behavior, and cognitive processes underlying behavior consistency and emotional experience.
- 3153 Sensation and Perception**  
(3-0) 3 hours credit. Prerequisites: PSY 3403, and either PSY 2543 or PSY 2573.  
Survey of the processes by which the information available in the physical world is encoded and transformed to produce our perception of the world. Emphasis on the interaction between data-driven and conceptually-driven processes. Topics may include elementary sensory physiology, pattern recognition, illusions, physiological bases of perceptual dysfunction, and perceptual development. (Formerly PSY 2553. Credit cannot be earned for both PSY 3153 and PSY 2553.)

**3203 Industrial and Organizational Psychology**

(3-0) 3 hours credit. Prerequisites: STA 2073 or an equivalent, and upper-class standing or consent of instructor.

The role of psychology in industry. Applications of psychological knowledge to industrial problems such as personnel selection, employee motivation and satisfaction, and the influence of organizations on behavior.

**3303 Psychological Perspectives on Gender**

(3-0) 3 hours credit. Prerequisite: PSY 2503, PSY 2513, PSY 2523, or PSY 2533.

Consideration of physiological and social-learning origins of sex differences and psychological theories of sex-stereotyped and sexual behavior. Topics may include androgyny versus sex-typed behavior, gender dysfunction, origins of sex stereotypes, sexual preferences, and sex differences in reasoning ability, aggression, sexual behavior, personality, and psychopathology.

**3403 Experimental Psychology**

(3-0) 3 hours credit. Prerequisites: One course from PSY 2503, PSY 2513, PSY 2523, or PSY 2533; PSY 2543 or PSY 2573; a minimum grade of "C" in STA 2073 or consent of instructor; and concurrent enrollment in PSY 3413.

This course is designed to offer students the opportunity to familiarize themselves with representative experimental designs employed in psychological research, to provide instruction in the choice of appropriate designs, to provide the opportunity to develop skills in the analysis of published research, and to offer an introduction to techniques for collecting and analyzing data.

**3413 Experimental Psychology Laboratory**

(2-2) 3 hours credit. Prerequisite: Concurrent enrollment in PSY 3403.

Application of observational and experimental procedures to selected problems in the collection of psychological data and the evaluation of psychological theories.

**3513 Psychopathology and Childhood**

(3-0) 3 hours credit. Prerequisite: PSY 2513.

Clinical findings and experimental research regarding childhood behavior problems, including hyperactivity, autism, schizophrenia, and anxiety disorders. Additional topics include family influences on development of abnormal behavior and various psychotherapeutic techniques.

**3523 Psychology of Adulthood and Aging**

(3-0) 3 hours credit. Prerequisite: PSY 2503 or consent of instructor.

Descriptive and theoretical accounts of psychological developments from early adulthood to old age. Relevant data are reviewed in the areas of memory, intellect, mental and physical health, social development, personality, grief, and dying.

**3543 Introduction to Clinical Psychology**

(3-0) 3 hours credit. Prerequisites: PSY 2513 and PSY 3403, or consent of instructor.

An introduction to the concepts, methods, and profession of clinical psychology. Topics will include historical background, theoretical and research perspectives on psychopathology and psychotherapy, clinical assessment, and professional issues concerning clinical training, regulation, and ethics.

**3633 Aggression**

(3-0) 3 hours credit. Prerequisite: PSY 1013 or consent of instructor.

Survey of social and psychological data; findings and theory of aggression for both human and nonhuman subjects.

**3903 Advanced Psychological Research**

(2-2) 3 hours credit. Prerequisite: PSY 3403 or the equivalent.

Provides the opportunity for the student to conduct current research in a subarea of psychology under the instructor's supervision. Lectures will include a review of previous research in the subarea and discussion of research design, data collection, data analysis, and the reporting of research.

**4003 History of Psychology**

(3-0) 3 hours credit. Prerequisites: PSY 3403 and PSY 3413, or consent of instructor.

The development of major theoretical positions and research strategies in psychology from the ancient Greeks to the present, with emphasis on the development of scientific psychology since the late 19th century.

- 4013 Social Psychology of the Self**  
(3-0) 3 hours credit. Prerequisites: PSY 2523 or PSY 2533, and PSY 3403 or consent of instructor.  
A social psychological examination of current research on the self in social interaction. Topics may include the structure of the self-concept and strategies for the preservation of self-esteem; the evaluation of the self through social comparison; the search for meaning and processes involved in understanding the self; and individual differences in self-knowledge and self-presentational styles. (Formerly PSY 3143. Credit cannot be earned for both PSY 4013 and PSY 3143.)
- 4103 Social Psychology of Prejudice**  
(3-0) 3 hours credit. Prerequisites: PSY 2533 and PSY 3403.  
Consideration of social, psychological, and personality factors in prejudice and stereotyping, and their interaction with cultural factors in producing racism and other prejudices.
- 4113 Cognitive Development**  
(3-0) 3 hours credit. Prerequisites: PSY 2503, PSY 2573, and PSY 3403; or consent of instructor.  
The development of perception, memory, and thinking in children, with attention to the roles of experience and maturation in development of thought, and the validity of the concept of cognitive stages, particularly Piagetian models.
- 4133 Social and Personality Development**  
(3-0) 3 hours credit. Prerequisite: PSY 2503, PSY 2523, or PSY 2533.  
Social and personality development across the life span. Topics may include sex-role development, child rearing, achievement, and the influence of peers. Socialization into different social roles may also be considered.
- 4143 Memory**  
(3-0) 3 hours credit. Prerequisites: PSY 3403 or an equivalent and one of the following: PSY 2543 or PSY 2573, or consent of instructor.  
Models for the coding, storage, and retrieval of information in memory. Organization and structure of short-term, long-term, and semantic memory, and the role of verbalization and images in memory.
- 4163 Sensory Processes**  
(3-0) 3 hours credit. Prerequisite: PSY 3153 or consent of instructor.  
Study of sensory physiology and the four psychophysical questions: detection, discrimination, magnitude estimation, and recognition.
- 4183 Physiological Psychology**  
(3-0) 3 hours credit. Prerequisite: PSY 1013 or consent of instructor.  
Topics may include the biological and particularly neurophysiological bases of human behavior and cognition, the structure and organization of the nervous system, and the effect of the latter on perception, memory, learning, motivation, and emotion.
- 4193 Relationships**  
(3-0) 3 hours credit. Prerequisites: PSY 2533 and PSY 3403.  
A consideration of the psychological processes that underlie the development and maintenance of social relationships. Emphasis on motivational and cognitive factors that mediate social interaction and communication. Special attention may be given to friendships, romantic relationships, successful marriages, and distressed relationships.
- 4213 Social Cognition**  
(3-0) 3 hours credit. Prerequisites: PSY 3403 or an equivalent, PSY 2533 or PSY 2573, or consent of instructor.  
The study of how people perceive and construe social events, social situations, and the behavior of other people. Some emphasis is also placed on how social and cultural forces affect personal perception processes.

**4253 Psychology and Health**

(3-0) 3 hours credit. Prerequisite: Upper-class standing.

Exploration of the role of psychological factors in physical health. Topics may include the relationship between mind and body, psychological factors in pain, the effects of stress on health, psychological aspects of chronic illness, psychological processes involved in perceiving and responding to physical symptoms, interpersonal relationships in health care, personality factors in illness, and issues concerning death and dying.

**4273 Styles of Thought**

(3-0) 3 hours credit. Prerequisites: PSY 3403 or an equivalent; PSY 2573 or PSY 3103.

Study of the various ways individuals perceive and analyze information. Topics may include the basis for skilled cognitive performances, the nature of cognitive pathologies, the impact of belief systems on cognitive performances, the consistency of individual differences in styles of thought across different cognitive tasks, and the modification of thought styles.

**4293 Visual Information Processing**

(3-0) 3 hours credit. Prerequisite: PSY 3153 or consent of instructor.

Focus on the acquisition, storage, and use of visual information. Topics will include visual pattern recognition, models of visual attention, analog representations in memory, and spatial cognition.

**4303 Psychology and the Law**

(3-0) 3 hours credit. Prerequisite: 12 semester credit hours of undergraduate psychology credit.

Emphasis on the contributions of psychology to the understanding of the legal system and criminal behavior. Topics may include cognitive and social psychological factors in eyewitness testimony, jury selection and decision making, competence and the insanity defense, prediction of criminal behavior and dangerousness, lie detection and hypnosis, and sentencing.

**4313 Psychology and Leadership**

(3-0) 3 hours credit. Prerequisites: MGT 3013 and MS 1013; or PSY 3403; or consent of instructor.

Examination of individual differences and environmental influences on leadership. Primary emphasis will be on leadership in a work setting. Topics may include traditional and contemporary theoretical perspectives on leadership and cross-cultural issues.

**4323 Psychology of Language**

(3-0) 3 hours credit. Prerequisites: PSY 3403, and either PSY 2543 or PSY 2573.

Investigates how humans represent, produce, understand, and acquire language. Topics may include language processing, neurolinguistics, language acquisition, conversational interaction, language disorders, and reading development. (Formerly PSY 2583. Credit cannot be earned for both PSY 4323 and PSY 2583.)

**4333 The Perception of Sound**

(3-0) 3 hours credit. Prerequisite: PSY 3153.

An examination of how we experience sound. Topics may include auditory psychophysics, auditory speech pattern perception, and the perception of complex sequences including music and speech.

**4911,3 Independent Study**

1 or 3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, the Department Chair, and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree. No more than 3 semester credit hours of independent study will apply toward psychology major or minor requirements.

**4923 Current Topics in Psychology**

(3-0) 3 hours credit. Prerequisites: PSY 1013 and PSY 3403.

Coverage of topics of current interest in the field of psychology. May be repeated once for credit when topics vary, but no more than 3 semester credit hours will apply toward the major in psychology.

**4933,6 Internship in Psychology**

3 or 6 hours credit. Prerequisite: Consent of internship coordinator before registration.

Supervised experience relevant to psychology within selected community organizations. A maximum of 6 semester credit hours may be earned through Internship in Psychology. No more than 3 semester credit hours will apply toward psychology major or minor requirements. Must be taken on a credit/no-credit basis.

**4953 Special Studies in Psychology**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when the topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4993 Honors Thesis**

3 hours credit. Prerequisite: Enrollment limited to candidates for Honors in Psychology. Requirements for candidacy include the sponsorship of a faculty member and psychology faculty approval of the student's project proposal.

Supervised research and preparation of an honors thesis. May be repeated once for credit with advisor's approval. No more than 3 semester credit hours will apply toward psychology major requirements.

## DEPARTMENT OF SOCIOLOGY

The Department of Sociology offers a Bachelor of Arts degree in Sociology. The department also offers a minor in Sociology.

At least 36 semester credit hours of coursework are required to fulfill a Sociology major. The 36-hour total is considered a minimum, and students are encouraged to deepen and broaden their grasp of their major through careful allocation of their elective semester credit hours.

All Sociology degrees require students to complete at least 6 semester credit hours of support work. These courses, which require advance approval from advisors, should serve to introduce students to other social sciences in addition to those entailed in the coursework within students' major discipline.

### INTERNSHIP STUDY

Majors in Sociology are required to apply 3 semester credit hours of internship study to their baccalaureate program. Internship entails supervised experience, usually within selected organizations in the San Antonio area. The majors are asked to find their internship placements. The internship director of the Department of Sociology approves placement. Students majoring in nonsocial science disciplines are welcome to participate but should consult with their faculty advisors regarding the role of the internship within their own degree programs. Further information can be obtained from the internship director or coordinator.

A student may request a waiver of the internship requirement by placing that request in writing, including a detailed explanation of the reasons for the request, before the Chair of the Department of Sociology. The Chair, in consultation with the Internship Coordinator, will make the final decision regarding waivers on a case by case basis. Students should seek advisor assistance.

Students who substitute for the internship or for whom the internship is waived must take an additional 3 hours of electives if necessary to meet the requirement for 120 total credit hours.

### DEPARTMENT HONORS

The Department of Sociology, through its Department Honors program, provides the opportunity for advanced study under close faculty supervision to those students who have demonstrated outstanding scholarship.

Selection for honors designation is based on academic performance and recommendation by discipline faculty. To be eligible for the program, students must have a minimum grade point average of 3.0 overall at UTSA and a minimum grade point average of 3.5 in Sociology at UTSA. Minimum grade point averages must be maintained for students to receive the approval of the Department Honors Committee and the Sociology faculty. Students applying for Department Honors are expected to enroll in the appropriate honors thesis course during their final two semesters. The supervising faculty sponsor and another department faculty member must approve the completed thesis. Students interested in this program should contact their faculty advisors for additional information.

### Bachelor of Arts Degree in Sociology

The minimum number of semester credit hours required for the Bachelor of Arts degree in Sociology, including the Core Curriculum requirements, is 120. Thirty-nine of the total semester credit hours required for the degree must be at the upper-division level.

All candidates for this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Sociology must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) SOC 1013 Introduction to the Study of Society <b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

### Degree Requirements

A. 36 semester credit hours in the major, 24 hours of which must be at the upper-division level:

1. 18 semester credit hours of required courses:

6 semester credit hours:

SOC	1013	Introduction to the Study of Society and
SOC	3343	Classical Sociological Theory or
SOC	3353	Contemporary Sociological Theory

6 semester credit hours of methods courses:

- SOC 3313 Conceptualization and Measurement in Sociology  
and
- SOC 3373 Qualitative Research Methods  
or
- SOC 3323 Research Design and Application in Sociology  
or
- SOC 3333 Survey Research Methods

3 semester credit hours:

- SOC 4973 Sociology Senior Seminar  
or
- SOC 4993 Honors Thesis

3 semester credit hours:

- SOC 4933 Internship in Sociology

2. 18 additional semester credit hours of sociology electives as approved by the student's advisor. Students are encouraged to take a broad variety of courses.
- B. 6 semester credit hours of support work in the social sciences outside the major. Social science may include: AMS, ANT, BBL, CRJ, GRG, HIS, POL, PSY, WGS.
- C. 6 semester credit hours in a single language other than English
- D. 30 semester credit hours of electives.  
Recommended areas include foreign languages, social sciences, and statistics. It is strongly recommended that theory and research methods requirements be completed by the first semester of the junior year.

### **Minor in Sociology**

All students pursuing a Minor in Sociology must complete 21 semester credit hours, 12 of which must be at the upper-division level.

A. 9 semester credit hours of required courses:

- SOC 1013 Introduction to the Study of Society
- SOC 3313 Conceptualization and Measurement in Sociology
  
- SOC 3343 Classical Sociological Theory  
or
- SOC 3353 Contemporary Sociological Theory

B. 12 semester credit hours of sociology electives

To declare a Minor in Sociology, obtain advice, or seek approval of substitutions for course requirements, students should consult the College of Liberal and Fine Arts Advising Center.

**COURSE DESCRIPTIONS**  
**SOCIOLOGY**  
**(SOC)**

- 1001 Freshman Topics in Sociology**  
 (1-1) 1 hour credit.  
 Required for entering freshmen in the College of Liberal and Fine Arts with less than 15 hours of coursework and who are interested in majoring in Sociology. Includes critical study of topics in sociology. Innovative classroom and learning techniques are used to introduce students to these topics and to help strengthen critical thinking, problem solving, and writing skills. A maximum of 3 semester credit hours of freshman topics courses may apply to a bachelor's degree. Specific topics may not be repeated.
- 1013 Introduction to the Study of Society**  
 (3-0) 3 hours credit.  
 An introduction to the study of human groups, the relations of individuals to groups, and the process of becoming a group member and functioning in a group setting. [TCCN: SOCI 1301.]
- 2013 Social Problems**  
 (3-0) 3 hours credit.  
 An examination of major contemporary social problems and their causes and consequences. Topics may include poverty, racism, sexism, deviance and crime, drug and alcohol dependence, the urban crisis, overpopulation, and war. [TCCN: SOCI 1306.]
- 2023 Drugs in Society**  
 (3-0) 3 hours credit.  
 An introduction into the basic understanding of society as it relates to drug abuse through the examination of related social problems and social structure. Areas of study covered may include the historical roots of drug abuse, the global magnitude of today's drug problems, the problematic character of enforcing drug control legislation, and social implications.
- 3003 Sociological Foundations**  
 (3-0) 3 hours credit. Prerequisite: SOC 1013.  
 A seminar for new sociology majors to orient them to basic theoretical, methodological, epistemological, and ethical issues in sociology. Topics may include the role of theory in sociology, the process of theory building and testing, the utility of various modes of investigation and analysis, the critical examination of research literature; and the relevance of sociology to real-world problems.
- 3013 Social Stratification**  
 (3-0) 3 hours credit.  
 Theory and research pertaining to inequalities of power, prestige, and economic privilege. Major emphasis upon inequality and social mobility in the United States.
- 3023 Urban Sociology**  
 (3-0) 3 hours credit.  
 Development of modern world cities, the ecology of cities, the organization of cities, major social problems, and the social psychology of urban life.
- 3033 Population Dynamics**  
 (3-0) 3 hours credit.  
 Trends in mortality, fertility, and migration for selected countries, and their projected consequences. Associated population policies and options are considered.
- 3043 Race and Ethnic Relations**  
 (3-0) 3 hours credit.  
 Dominant-subordinate relations in world societies, with major emphasis on the United States. Models of assimilation, colonial and class society, and consequences for minority and majority populations may be examined.

**3053 Deviance and Difference**

(3-0) 3 hours credit.

An analysis of forms of deviance and consideration of social/political trends toward difference. An examination of theories may include: biological, analytic, labeling, functionalist, culture conflict, radical, and poststructuralist.

**3063 Collective Behavior**

(3-0) 3 hours credit. Prerequisite: SOC 1013.

Case studies and associated theory dealing with various forms of collective behavior ranging from spontaneous events to organized mass movements.

**3073 Migration Dynamics**

(3-0) 3 hours credit.

Attention will be given to theoretical explanations; social, economic, physical, and ideological features of migration; legal and undocumented immigrants; and resultant issues of adjustment and incorporation.

**3083 Social Change**

(3-0) 3 hours credit.

Principal models and theories of social transformation applied to examples of societal change.

**3093 Religion and Society**

(3-0) 3 hours credit.

Religious institutions and movements in the United States with comparative data from other countries. The relationship of religious institutions to social stratification, economic institutions, and political and social change.

**3103 Complex Organizations**

(3-0) 3 hours credit. Prerequisite: SOC 1013.

The sociology of public and private bureaucratic organizations, the structure and behavior of management, and patterns of mobility within corporate organizations.

**3113 Criminology**

(3-0) 3 hours credit.

Examination of government and social policies and programs designed to deal with crime. Analysis of different types of crime, including street crime, organized crime, political crime, and white-collar crime. Social and legal responses to crime.

**3133 Sociology of Pluralism in the Southwest**

(3-0) 3 hours credit. Prerequisite: SOC 1013.

The principal minority groups in the American Southwest, with special emphasis on the experience of Mexican Americans. The course will deal with forms and consequences of intergroup relations, social movements, culture, and identity.

**3163 Marriage and the Family**

(3-0) 3 hours credit.

A sociological analysis of the modern family and marriage, its structures and functions, variant patterns, and the influence of contemporary society on this institution. Contemporary and continuing issues are covered in the context of theory and research. Topics may include family violence, gender roles in the family, divorce and remarriage, socialization of children, alternative family structures, and the aging family. (Formerly SOC 2053. Credit cannot be earned for SOC 3163 and SOC 2053.)

**3173 Economy and Society**

(3-0) 3 hours credit.

Explores the social dimensions of production, distribution, and consumption of goods and services. Examines the structure and function of economic organizations in society.

- 3193 The Sociology of Work and Occupations**  
(3-0) 3 hours credit. Prerequisite: SOC 1013.  
Occupational structures in selected societies. The relationship between occupations and economic rewards, lifestyles, and worldview. Determinants of work satisfaction.
- 3203 Gerontology**  
(3-0) 3 hours credit.  
An examination of historical and cross-cultural differences in the status of the elderly in society. Includes interaction of the elderly with social institutions, and policy implications of the demographic shift toward an aging population in the United States.
- 3213 Medical Sociology**  
(3-0) 3 hours credit.  
The identification of social factors in the distribution and cause of disease; relationships between patients and medical professionals; the contribution of lay belief to health, illness, treatment, and recovery; health institutions; the distribution of medical resources; and the organization of health care delivery.
- 3223 Demographic Techniques**  
(3-0) 3 hours credit.  
The purpose of this course is to introduce students to an overview of a wide range of demographic techniques and models. The main topics will be sources of demographic data; the construction of rates and ratios; introduction to life table technique; standardization and basic decomposition of rates; measures of concentration and diversity; and population growth and projection. Students will become familiar with several programs for demographic analysis using microcomputers.
- 3253 The Individual and Society**  
(3-0) 3 hours credit. Prerequisite: SOC 1013.  
An examination of major theories dealing with the effects of culture and social structure on the development and functioning of the personality and the self.
- 3263 Latinas in U.S. Society**  
(3-0) 3 hours credit.  
Focuses on women of Latino descent in the United States with an emphasis on the experiences of women in Texas in comparison to other groups from the Southwest. The material addresses: historical presence in the American Southwest; patriarchy and familism; labor and employment issues; immigrant women and border issues; political involvement and feminist vision; artistic, cultural and intellectual expression.
- 3273 Sociology of Music**  
(3-0) 3 hours credit. Prerequisite: SOC 1013.  
Explores the social significance of music on people's everyday life. Includes the relationship between music and identity and its exemplification through several popular musics of the world. Topics may include conjunto and tejano in the U.S. Southwest, tango and rock in Argentina, and salsa in New York, etc.
- 3283 Poverty**  
(3-0) 3 hours credit.  
The causes and consequences of poverty in the United States and selected other societies. An examination of social programs designed to combat poverty.
- 3293 Gender Roles**  
(3-0) 3 hours credit. Prerequisite: SOC 1013.  
The nature of gender roles in our own and other societies. Consideration of how people learn gender roles and the outcomes of this learning for individuals, families, and societies. Alternatives to conventional gender roles.

**3313 Conceptualization and Measurement in Sociology**

(3-0) 3 hours credit. Prerequisites: Completion of the Core Curriculum requirement in mathematics and SOC 1013. Introduction to conceptualization, operationalization, and measurement in the social sciences. Use of elementary measures of central tendency and dispersion, cross-tabulation, and linear model procedures to evaluate relationships among variables; problems of description and inference. May also include use of standard computer packages and secondary analysis of data. Enrollment limited to sociology majors or minors or students in other degree programs requiring the course. (Formerly SSC 3013. Credit cannot be earned for both SOC 3313 and SSC 3013.)

**3323 Research Design and Application in Sociology**

(3-0) 3 hours credit. Prerequisites: Completion of Core Curriculum requirement in mathematics and SOC 3313. Introduction to the philosophy of science and the logic of research design, including field, experimental, and survey projects. Methods of data gathering, analysis, and reporting applied to research on policy-relevant problems in the social sciences. Enrollment limited to sociology majors. (Formerly SOC 3023. Credit cannot be earned for both SOC 3323 and SOC 3023.)

**3333 Survey Research Methods**

(3-0) 3 hours credit. Prerequisite: SOC 3313, the equivalent, or consent of instructor. A course in survey research, including research design, questionnaire construction, sampling, interviewing, control procedures, and data processing. (Formerly SOC 3123. Credit cannot be earned for both SOC 3333 and SOC 3123.)

**3343 Classical Sociological Theory**

(3-0) 3 hours credit. Prerequisite: SOC 1013. The transition from social philosophy to sociology, with special emphasis upon European theorists in the 19th and early 20th centuries. (Formerly SOC 3153. Credit cannot be earned for both SOC 3343 and SOC 3153.)

**3353 Contemporary Sociological Theory**

(3-0) 3 hours credit. Prerequisite: SOC 1013. An examination of current trends in sociological theory, which may include contemporary functionalism, radical criticism, phenomenology and symbolic interactionism, structuralism and poststructuralism, feminism, cultural and postcolonial studies, and formal theory construction. (Formerly SOC 3183. Credit cannot be earned for SOC 3353 and SOC 3183.)

**3373 Qualitative Research Methods**

(3-0) 3 hours credit. Prerequisites: SOC 1013 and SOC 3313. Introduces the assumptions, theories, and practices of qualitative research methods. The course is designed to provide opportunities for developing specific qualitative research skills while gaining familiarity with theories, issues, and problems in qualitative research.

**3383 Sociology of the African American Community**

(3-0) 3 hours credit. This course provides students with a comprehensive understanding of the history, struggles, and diversity of the African American community. Emphasis will be placed on contemporary public issues as well as on the historical role of the African American community within urban society. A sociological framework is used to analyze political, educational, and economic systems in America and their impact on African Americans.

**3403 Mexican American Stratification**

(3-0) 3 hours credit. An examination of the social status of Mexican Americans and their relationship to the dominant society. Issues may include the position of Mexican Americans in economic, political, and status hierarchies and the major factors limiting mobility within these systems.

**3413 Mexican American Family**

(3-0) 3 hours credit. Prerequisite: SOC 1013. Focuses on contemporary issues regarding Mexican American families. Topics of discussion include family structure, child-rearing practices, gender roles, marital stability, and intermarriage. Comparison with other minorities and the majority group will allow discussion of variant family patterns.

- 3423 Mass Media in Society**  
(3-0) 3 hours credit.  
The course will examine media production and its role in the economy; the construction of media meaning, signification, and ideology; and the role of the audience in making sense of messages. Larger issues of societal power will be treated, along with an examination of alternative media.
- 3433 Mexican Immigration and U.S. Society**  
(3-0) 3 hours credit.  
Focuses on the growth and development of the Mexican population in the United States and controversies around Mexican immigration, both legal and undocumented. Uses a sociological perspective to present a historical analysis of Mexican migration to the United States, theoretical explanations of migrations, and the social implications of these issues.
- 3463 Sociology of Sport and Leisure**  
(3-0) 3 hours credit. Prerequisite: SOC 1013.  
Examines the social meanings of play and leisure in advanced industrial societies. Emphasis will be on the origins, structure, and function of these phenomena in the United States, with major emphasis on sport as an institution.
- 3503 Sociology of Education**  
(3-0) 3 hours credit.  
An exploration of education as an institution that affects and is affected by the larger social structure. Topics may include the role of schools in society; connections between schooling, stratification and the economy; gender and ethnic differences in achievement; and social and cultural contexts of learning.
- 3513 Children and Society**  
(3-0) 3 hours credit.  
An examination of the evolution of concepts of childhood over time. Topics may include theories of child development, cultural and social influences in child raising, the effects of affluence and poverty on children, children in postmodern societies, and child socialization in different cultures.
- 3523 Language and Society**  
(3-0) 3 hours credit.  
A sociology of language course to explore aspects of language use and behaviors and how and why they vary. Topics include gender, cultural and socioeconomic variations in language use, language communities, ethnicity and language, intra- and intergroup communication, and language planning.
- 3533 Border and Transnational Relations**  
(3-0) 3 hours credit.  
The development of political, economic, and cultural relations among nations. Topics may include globalization, transnational identities and experiences, and social, economic, and cultural issues affecting the United States–Mexico border. (Formerly SSC 3533. Credit cannot be earned for SOC 3533 and SSC 3533 or HIS 3533.)
- 4003 Criminological Theory**  
(3-0) 3 hours credit.  
A consideration of criminological theory, beginning with a development of what constitutes theory and how it is formulated, tested, and evaluated. Reviews the paradigms, models, and theories that attempt to explain criminal behavior and critiques each.
- 4023 Violence and Society**  
(3-0) 3 hours credit  
Examines the major theories that attempt to explain why violence occurs in society. Certain forms of violence, both legal and illegal, are studied from a variety of perspectives in the social sciences to determine whether present explanations of violent behavior are adequate. (Formerly SSC 3203. Credit cannot be earned both for SOC 4023 and SSC 3203.)

**4033 Historical and Comparative Sociology**

(3-0) 3 hours credit.

A broad-based consideration of the use of historical materials in sociological analysis, especially as this facilitates empirically- and theoretically-oriented studies across different societies and through time. Topics may include comparative approaches to major historical phenomena such as nationalism, bureaucratization, feudalism, and capitalism.

**4063 Civil-Military Relations**

(3-0) 3 hours credit.

Explores the past, present, and future structure and use of the U.S. military. Topics examined may include the historical events and social trends affecting the relationship between the military organization and the civilian government and issues surrounding such controversies as a draft vs. a volunteer military, the increasing minority representation, and the use of women, particularly in combat.

**4183 Theories of Identity**

(3-0) 3 hours credit. Prerequisite: SOC 1013.

An examination of how different theories make sense of the ways people construct social and cultural identities. The course may cover theories of identity, symbolic interactionism, Marxism, psychoanalysis, structuralism, post-structuralism, feminism, and postcolonial theory.

**4433 Culture and Society**

(3-0) 3 hours credit.

Explores the social significance of cultural production, including the relationships between art, consciousness, the economy, and history. Themes examined may include the social production of art, art and ideology, the problem of artistic reception, and art movements and cultural resistance. Topics include art and culture in minority social movements, the relation between high and low culture, and cultural conflict over art.

**4443 Race/Ethnicity, Class, Gender, and Sexuality**

(3-0) 3 hours credit. Prerequisites: SOC 3343 or SOC 3353, and SOC 3313.

An interdisciplinary exploration of the historical and contemporary differences and similarities in the study of race, gender, and sexuality. This course is designed as a seminar integrating issues of race, class, gender, and sexuality.

**4911,3 Independent Study**

1 or 3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Department Chair, and the Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4933,6 Internship in Sociology**

3 or 6 hours credit. Prerequisites: Completion of two upper-division sociology courses and consent of internship coordinator.

This course offers supervised work experience relevant to sociology within selected organizations and agencies. Internships selected should be relevant to previous coursework. A maximum of 6 semester credit hours may be earned through this internship.

**4953 Special Studies in Sociology**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4973 Sociology Senior Seminar**

(3-0) 3 hours credit. Prerequisites: Completion of theory and methods requirements and senior standing in the sociology major.

A capstone course designed to integrate sociological theory and methods and to guide students in the conduct of social research. A research paper is required.

**4993 Honors Thesis**

3 hours credit. Prerequisite: Enrollment limited to candidates for Honors in Sociology during the last two semesters. Supervised research and preparation of an honors thesis. May be repeated once with advisor's approval.

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Photo – Chapter 6: College of Public Policy

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# COLLEGE OF PUBLIC POLICY

## Mission Statement

The mission of the College of Public Policy is to serve as a bridge between the theory and knowledge of the global academic communities represented by the disciplines in the College and the practical needs of policymakers and practitioners in a diverse community of citizens and organizations. The College of Public Policy serves as a resource for the local and international community, and seeks to transform those areas of public policy in which it is involved, creating positive changes through the creation and transmission of knowledge. The College fulfills this mission by engaging in research in the areas of public policy, teaching at both the undergraduate and graduate level, and service activities appropriate to the units of the College.

## DEPARTMENT OF CRIMINAL JUSTICE

The Department of Criminal Justice offers a Bachelor of Arts degree in Criminal Justice, which provides the opportunity for a comprehensive study of criminal justice, with concentrations in policing and crime prevention; corrections and juvenile justice; legal issues and adjudication; economic crime investigation; and forensic science. Students completing the degree may pursue professional careers in government or the private sector as well as apply for admission to law or graduate schools.

### Bachelor of Arts Degree in Criminal Justice

The minimum number of semester credit hours required for this degree, including the Core Curriculum requirements, is 120. Thirty-nine of the total semester credit hours required for the degree must be at the upper-division level. Criminal Justice majors, through consultation with faculty advisors, should choose elective courses from Core Curriculum requirements that will enhance their awareness of the complex social and cultural issues confronting contemporary American society.

All candidates for this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Criminal Justice must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) CRJ 1113 The American Criminal Justice System</p> <p><b><i>Economics</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Degree Requirements

#### A. 18 semester credit hours of core criminal justice coursework:

CRJ	1113	The American Criminal Justice System
CRJ	2153	Nature of Crime and Justice
CRJ	3013	Research Design and Analysis in Criminal Justice
CRJ	3213	Managing Criminal Justice Organizations
CRJ	3313	Critical Thinking Applications to Criminal Justice
CRJ	3623	Substantive Criminal Law

#### B. 12 semester credit hours in one of the following concentrations:

##### 1. Policing and Crime Prevention

CRJ	2213	Introduction to Policing
CRJ	3233	Introduction to Forensic Science
CRJ	4123	Concepts of Investigation
CRJ	4413	Contemporary Police Practices
CRJ	4433	Police and National Security Intelligence
CRJ	4443	Special Topics in Policing and Crime Prevention

##### 2. Corrections and Juvenile Justice

CRJ	2513	Corrections: Theory and Practice
CRJ	3533	Probation, Parole, and Intermediate Sanctions
CRJ	3563	Juvenile Justice
CRJ	3573	Restorative Justice
CRJ	4303	Victims and the Justice System
CRJ	4613	Supervising the Correctional Client
CRJ	4663	Special Topics in Corrections and Juvenile Justice

**3. Legal Issues and Adjudication**

CRJ	2813	Introduction to Courts and the Legal System
CRJ	3613	Legal Research and Writing
CRJ	3633	Trial and Evidence
CRJ	3413	Cybercrimes and the Law
CRJ	4253	Legal Advocacy
CRJ	4633	Constitutional Criminal Procedure
CRJ	4863	Special Topics in Legal Issues and Adjudication

**4. Economic Crime Investigation**

CRJ	3323	Law of Economic Crime
CRJ	3423	Technology in Criminal Justice
CRJ	4323	Forensic Accounting
CRJ	4633	Constitutional Criminal Procedure
CRJ	4643	Organized Crime
CRJ	4653	White Collar Crime

**5. Forensic Science**

CRJ	3233	Introduction to Forensic Science
CRJ	4123	Concepts of Investigation
CRJ	4143	Legal Issues in Forensic Science
CRJ	4633	Constitutional Criminal Procedure

C. 3 semester credit hours of CRJ 4933 Internship in Criminal Justice taken in consultation with the Department's internship coordinator. Three semester credit hours of appropriate upper-division coursework may be taken in lieu of the internship if a student has relevant and documented full-time employment at least one year in duration in a justice-related agency. May be repeated for an additional 3 semester credit hours with a different internship work site.

D. 15-26 semester credit hours of support work depending upon the student's concentration:

**1. Policing and Crime Prevention**

15 semester credit hours of support work, to include 6 hours of upper-division criminal justice courses not used to fulfill other degree requirements and 9 hours of upper-division coursework, chosen in consultation with the student's advisor.

**2. Corrections and Juvenile Justice**

15 semester credit hours of support work, to include 6 hours of upper-division criminal justice courses not used to fulfill other degree requirements and 9 hours of upper-division coursework, chosen in consultation with the student's advisor.

**3. Legal Issues and Adjudication**

15 semester credit hours of support work, to include 6 hours of upper-division criminal justice courses not used to fulfill other degree requirements and 9 hours of upper-division coursework, chosen in consultation with the student's advisor.

**4. Economic Crime Investigation**

21 semester credit hours of support work:

ACC	2013	Principles of Accounting I
ACC	2033	Principles of Accounting II

ACC	3023	Intermediate Accounting I
ACC	3033	Intermediate Accounting II
FIN	3013	Principles of Business Finance
IS	1403	Business Information Systems Fluency
IS	3003	Principles of Information Systems for Management

#### 5. Forensic Science

26 semester credit hours of support work:

ANT	3513	The Human Skeleton
ANT	3823	Applied Anthropology
BIO	3513	Biochemistry
BIO	3913	Molecular Biology
CHE	1103	General Chemistry I
CHE	1303	General Chemistry II
CHE	1312	General Chemistry II Laboratory
CHE	2204	Organic Chemistry I
CHE	2242	Organic Chemistry I Laboratory

E. 19-30 semester credit hours of electives, depending upon the student's concentration:

##### 1. Policing and Crime Prevention

30 semester credit hours of electives

##### 2. Corrections and Juvenile Justice

30 semester credit hours of electives

##### 3. Legal Issues and Adjudication

30 semester credit hours of electives

##### 4. Economic Crime Investigation

24 semester credit hours of electives

##### 5. Forensic Science

19 semester credit hours of electives

## COURSE DESCRIPTIONS CRIMINAL JUSTICE (CRJ)

### 1113 The American Criminal Justice System

(3-0) 3 hours credit.

Philosophy and history of criminal justice in America; examination of criminal justice agencies operating as an interacting system: police and security agencies, courts, and corrections. (Formerly CRJ 2113. Credit cannot be earned for both CRJ 1113 and CRJ 2113.) [TCCN: CRIJ 1301.]

- 2153 Nature of Crime and Justice**  
(3-0) 3 hours credit.  
A multidisciplinary survey of positivist and classical theories of crime causation with an overview of major crime control strategies. Incidence and patterns of violent, economic, and public-order crimes may be explored. (Formerly CRJ 3153. Credit cannot be earned for both CRJ 2153 and CRJ 3153.)
- 2213 Introduction to Policing**  
(3-0) 3 hours credit.  
An introduction to American policing organizations (public and private), history of policing, modern community policing practices, and important trends in law enforcement. [TCCN: CRIJ 2328.]
- 2513 Corrections: Theory and Practice**  
(3-0) 3 hours credit.  
A study of the history, philosophy, and practice of corrections in America. Theories and practices of incarceration; legal and administrative issues surrounding imprisonment and the death penalty. (Formerly CRJ 3513. Credit cannot be earned for both CRJ 2513 and CRJ 3513.) [TCCN: CRIJ 2313.]
- 2813 Introduction to Courts and the Legal System**  
(3-0) 3 hours credit.  
Examines state and federal American court systems, their powers, remedies, limitations, and procedures, and the contributions of courts to governance. (Formerly CRJ 4813. Credit cannot be earned for both CRJ 2813 and CRJ 4813.) [TCCN: CRIJ 1306.]
- 3013 Research Design and Analysis in Criminal Justice**  
(3-0) 3 hours credit. Prerequisite: One of the following: MTC 1033, MTC 1043, MTC 1073, STA 1043, or STA 1053.  
Provides students with an opportunity to be knowledgeable consumers of criminal justice research. Provides an overview of principles of scientific inquiry, research designs, and statistical concepts and techniques. Introduction to interpretation of data analysis and preparation of research reports. (Formerly SSC 3013. Credit cannot be earned for both CRJ 3013 and SSC 3013.)
- 3213 Managing Criminal Justice Organizations**  
(3-0) 3 hours credit. Prerequisite: CRJ 1113 or the equivalent.  
Examines bureaucratic, political, and other characteristics of justice organizations through a review of theories of public administration and organizational behavior. Applies theories to problems and policies encountered in managing criminal justice agencies.
- 3233 Introduction to Forensic Science**  
(3-0) 3 hours credit. Prerequisite: CRJ 1113 or the equivalent. Enrollment limited to upper-division criminal justice majors.  
Provides students with a basic understanding of the nature of physical evidence and its part in our criminal justice system, an introduction to basic scientific and legal principles involved with the utilization of physical evidence, and exposure to specific items of physical evidence to include their components, manufacture, methods of analysis, and value in case work. (Formerly CRJ 3133. Credit cannot be earned for both CRJ 3233 and CRJ 3133.)
- 3313 Critical Thinking Applications to Criminal Justice**  
(3-0) 3 hours credit. Prerequisite: CRJ 1113 or equivalent.  
Develops skills in information interpretation, analysis, and evaluation in the context of criminal justice applications. Enhances ability to make sound decisions in response to criminal justice problems and issues. Cultivates proficiency in formal and informal logic, as well as creative thinking.
- 3323 Law of Economic Crime**  
(3-0) 3 hours credit.  
Examines governmental and judicial regulations of financial institutions, commercial entities, their agents, and employees in relation to economic and business crime. Overview of criminal statutes and case law applicable to economic crimes. Cultivates knowledge of elements required to successfully identify, investigate, and prosecute economic crimes.

- 3413 Cybercrimes and the Law**  
(3-0) 3 hours credit.  
A study of the laws governing the prosecution and defense of computer-related crime, focusing on federal and state laws, criminalizing acts involving the use of a computer, and related constitutional principles.
- 3423 Technology in Criminal Justice**  
(3-0) 3 hours credit. Prerequisite: CRJ 3013 or equivalent.  
Survey and application of technology to research, analysis, and management decision making of justice issues. Familiarizes students with the use of new technologies, such as crime mapping, link analysis, and computer-assisted statistical tools to assess justice problems. Considers future trends in technological development.
- 3533 Probation, Parole, and Intermediate Sanctions**  
(3-0) 3 hours credit.  
History, philosophy, and practice of community supervision of offenders. Examination of various intermediate punishments including boot camps, intensive probation supervision, electronic monitoring, restitution, and community service.
- 3563 Juvenile Justice**  
(3-0) 3 hours credit.  
Examination of the history of adolescence and the development of the juvenile justice system. An in-depth study of police, courts, and corrections as applied to youth. Examination of youth as both offenders and victims. Topics include child abuse, youth gangs, waiver/transfer of youth to the adult court, and the death penalty for juveniles. (Formerly CRJ 3543. Credit cannot be earned for both CRJ 3563 and CRJ 3543.)
- 3573 Restorative Justice**  
(3-0) 3 hours credit.  
Provides students with a detailed study of the principles and practices of restorative justice aimed at creating a just peace within a community, a just public order for the community, vindication for victims, and opportunities for accountability and restoration to offenders.
- 3613 Legal Research and Writing**  
(3-0) 3 hours credit.  
Detailed study of theory and practice of legal research. Development and refinement of legal writing techniques. (Same as LGS 3013. Credit cannot be earned for both CRJ 3613 and LGS 3013.)
- 3623 Substantive Criminal Law**  
(3-0) 3 hours credit. Prerequisite: CRJ 1113 or the equivalent.  
Jurisprudential philosophy and case study of common law and statutory crimes. Includes functions and development of substantive criminal law, elements of specific offenses, and defenses.
- 3633 Trial and Evidence**  
(3-0) 3 hours credit.  
Issues and problems of proof in civil and criminal trials, admissibility, examining witnesses, constitutional considerations, and exclusionary rules.
- 3713 Ethics in Criminal Justice Practice**  
(3-0) 3 hours credit. Prerequisites: CRJ 2153 and CRJ 3213, or equivalents.  
Survey of major schools of ethics theory; sources of ethical and philosophical foundations for criminal justice functions; common quandaries confronting officers, supervisors, and executives in justice organizations. Examines the role of criminal justice within modern civil societies.
- 4113 Intimate and Family Violence**  
(3-0) 3 hours credit. Prerequisite: CRJ 2153 or equivalent.  
Historical, social, and legal responses and policies of domestic violence, intimate partner violence, and child abuse. Characteristics of victims and perpetrators of violence and the progression and cycle of violence are examined. In-depth study of the process of violent victimization and victimizing.

- 4123 Concepts of Investigation**  
(3-0) 3 hours credit. Prerequisite: CRJ 1113.  
Examination of theories and practices of the investigation process in the criminal justice system; specific operational techniques; and application of innovative techniques.
- 4143 Legal Issues in Forensic Science**  
(3-0) 3 hours credit. Prerequisite: CRJ 1113.  
Examination of statutory and case law governing the admissibility of scientific evidence at trial; study of the roles and responsibilities of expert witnesses.
- 4253 Legal Advocacy**  
(3-0) 3 hours credit.  
The development of written and oral advocacy skills through critical examination of legal issues, focusing on the interpretation of statutory law and analysis of relevant case law to formulate sound, persuasive argument throughout the adversarial process.
- 4303 Victims and the Justice System**  
(3-0) 3 hours credit.  
Examination of theories of victimization, personal consequences of victimization, and processes of healing. Study of institutions associated with victims and victim services. Overview of criminal justice system responses to victims, and civil justice remedies.
- 4313 Minorities and Women in the Criminal Justice System**  
(3-0) 3 hours credit.  
Study of the special problems faced by cultural minorities and women in criminal justice. Topics include Affirmative Action, minority over representation in the justice system, and gender- and culture-specific victim services.
- 4323 Forensic Accounting**  
(3-0) 3 hours credit. Prerequisites: ACC 2013 and ACC 2033.  
Advanced study of strategies and tactics essential to the fraud examination process. Interpretation and scrutiny of financial records and documentation. Overview of trace techniques, reporting irregularities, fraud examination approaches, and legal rules and statutory construction pertinent to accounting practices.
- 4413 Contemporary Police Practices**  
(3-0) 3 hours credit.  
An examination of the emergence of broad-based crime prevention and problem solving methods, with an emphasis on “values driven” management practices and the evolution of a new partnership between the police and the community.
- 4433 Police and National Security Intelligence**  
(3-0) 3 hours credit. Prerequisites: CRJ 1113 or equivalent; and sophomore, junior, or senior standing.  
Provides a framework for understanding the mission, role, and structure of police and national security intelligence organizations. Examines a wide range of issues concerning the intelligence function in domestic and international contexts, such as drug trafficking, transnational organized crime, espionage, and use of information systems in fraud. Includes discussion of ethical and legal dimensions of intelligence in democracies and other governmental forms.
- 4443 Special Topics in Policing and Crime Prevention**  
(3-0) 3 hours credit.  
Considers special topics in policing and crime prevention not ordinarily evaluated in depth in other courses, such as comparative policing systems, personnel issues, police civil and criminal liabilities, job satisfaction and stress, diversity issues, ethics, police use of force, and future of policing. May be repeated for credit when topics vary.

**4453 Drugs, Drug Laws, and Crime**

(3-0) 3 hours credit.

Study of major categories of controlled/abused substances, the effects of consumption, the historical emergence of substance control policies, and the “drug war.” Examination of the externalities and trends in drug-control policies, drug-related crimes, and future social control strategies in the United States.

**4613 Supervising the Correctional Client**

(3-0) 3 hours credit.

Examines the components of effective supervision of correctional clients, including risk and needs assessment. Provides skills for successful face-to-face encounters with correctional clients. Study of service delivery programs tailored to the specific needs of the correctional clients.

**4633 Constitutional Criminal Procedure**

(3-0) 3 hours credit. Prerequisite: CRJ 3623 or the equivalent.

A procedurally-oriented discussion of criminal law, including law of arrest, search and seizure, preliminary examination, bail, the grand jury, indictment and information, arraignment, trial, and review.

**4643 Organized Crime**

(3-0) 3 hours credit.

Study of the development of organized crime; social and legal definitions; theories and research on factors sustaining organized and conspiratorial crimes; containment strategies. Federal, state, and global responses to organized crime; links with white collar crime. (Formerly CRJ 4713. Credit cannot be earned for both CRJ 4643 and CRJ 4713.)

**4653 White Collar Crime**

(3-0) 3 hours credit.

Study of the theory, nature, scope, and impact of occupational, political, and organizational/corporate crime. Comparison of white collar crime to street crime. Examination of the structural foundations for these types of crimes and current and future systems for control of white collar crimes. (Formerly CRJ 4713. Credit cannot be earned for both CRJ 4653 and CRJ 4713.)

**4663 Special Topics in Corrections and Juvenile Justice**

(3-0) 3 hours credit.

Considers special topics in corrections and juvenile justice not ordinarily evaluated in depth in other courses, such as the death penalty, special correctional populations, and correctional administration. May be repeated for credit when topics vary.

**4723 The Media and Criminal Justice**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

Impact of radio, television, motion pictures, records, books, and newspapers on the public’s perception of criminal justice media images of events, conditions, and people associated with the criminal justice system.

**4743 Crime in Fiction**

(3-0) 3 hours credit.

An examination of fictional characterizations of crime and justice, fictional applications of social science methodologies, and concerns for social conditions and crime through such authors as Chekov, Dickens, Dostoyevsky, Norris, Puzo, Twain, Wright, Wambaugh, and others.

**4833 Violent Crime**

(3-0) 3 hours credit.

Examination of crimes of personal violence, focusing on homicide, robbery, assault, and rape. Discussion of major theories of violent personal behavior and examination of historical and current data on violent crime. Consideration of rates of violent crime, how these rates have changed, and factors that contribute to violent crimes.

**4853 Sex Crimes and the Law**

(3-0) 3 hours credit

Examination of the nature and etiology of the major categories of sexual offending and overview of contemporary justice system responses.

- 4863 Special Topics in Legal Issues and Adjudication**  
(3-0) 3 hours credit. Prerequisites: CRJ 2813 and CRJ 3623 or equivalents.  
Considers special topics in courts and adjudication not ordinarily evaluated in depth in other courses, such as judicial administration, specialized courts, judicial intervention, and emerging areas of criminal law. May be repeated for credit when topics vary.
- 4913 Independent Study**  
3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, the Department Chair, and Dean of the College in which the course is offered.  
Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.
- 4933 Internship in Criminal Justice**  
3 hours credit. Prerequisites: CRJ 2153, CRJ 3213 and CRJ 3623; at least one course in area of emphasis; consent of academic advisor and internship coordinator. Additional prerequisites may apply to particular internship sites; consult the Department's Internship Coordinator for information.  
Supervised experience in an administrative setting that provides the opportunity to integrate theory and practice in criminal justice agencies. May be repeated for credit when agency setting varies, but no more than 6 semester credit hours will apply to a bachelor's degree.
- 4953 Special Studies in Criminal Justice**  
(3-0) 3 hours credit. Prerequisite: Consent of instructor.  
An organized course offering the opportunity for specialized study not normally or not often available as part of regular course offerings. Special Studies may be repeated for credit when topics vary, but no more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.
- 4993 Honors Thesis**  
3 hours credit. Prerequisites: Enrollment limited to candidates for Honors in Criminal Justice during the last two semesters; completion of honors examination and approval by the honors program coordinator.  
Supervised research and preparation of an honors thesis. May be repeated once with advisor's approval.

## DEPARTMENT OF PUBLIC ADMINISTRATION

### Minor in Nonprofit Management

Students from any discipline may select a minor in Nonprofit Management. The Minor in Nonprofit Management provides the opportunity to prepare for leadership positions in social service, community, youth, environmental, medical, arts, and other nonprofit agencies.

In addition to the formal courses for the minor, students are encouraged to participate in the American Humanics Student Organization. Students who fulfill all requirements of the American Humanics program will also receive certification from American Humanics in addition to the undergraduate minor. American Humanics is a national organization devoted to preparing students for careers in youth and human service or nonprofit organizations.

All students pursuing a Minor in Nonprofit Management must complete 18 semester credit hours.

ACC	2003	Foundations of Accounting
		or
ACC	2013	Principles of Accounting I
MGT	3803	Strategic Management of Nonprofit Organizations
		or
MGT	3013	Introduction to Organization Theory, Behavior, and Management
MKT	3013	Principles of Marketing
NPO	3003	Fundraising in Nonprofit Agencies
NPO	3013	Introduction to Nonprofit Agencies
NPO	4933	Internship in Nonprofit Management
		or
NPO	4936	Internship in Nonprofit Management (3 hours can be applied to the American Humanics certification)

Students who wish to receive the American Humanics certification are required to complete an additional 4 semester credit hours for a total of 22 hours:

NPO	4933	Internship in Nonprofit Management
NPO	4901	American Humanics Management Institute

To declare a Minor in Nonprofit Management, obtain advice, obtain lists of relevant courses, or seek approval of substitutions for course requirements, students should consult the coordinator of the Nonprofit Management Program located in the Department of Public Administration.

### COURSE DESCRIPTIONS NONPROFIT MANAGEMENT (NPO)

#### **3003 Fundraising in Nonprofit Agencies**

(3-0) 3 hours credit.

Examines methods, techniques, and directed experience in fundraising for social service, community, youth, environmental, medical, arts, and other nonprofit agencies. Explores relationships with umbrella organizations, government funding, grantsmanship, budget control, and accountability. (Formerly YHS 3003. Credit cannot be earned for both NPO 3003 and YHS 3003.)

**3013 Introduction to Nonprofit Agencies**

(3-0) 3 hours credit.

An overview of the historical background, development, role, auspices, organization, and purposes of nonprofit agencies. Special emphasis is placed on structure, program, financing, policies, organizational management, planning and stewardship, fund-raising, community building, volunteer services, and problems which confront these organizations. Group and individual projects, service learning, research conducted for specific nonprofit agencies, oral presentations, networking, and construction of a formal portfolio of nonprofit work experiences and deliverables may be modalities utilized in this course. (Formerly YHS 1003 and YHS 3013. Credit cannot be earned for both NPO 3013 and YHS 1003 or YHS 3013.)

**4901 American Humanics Management Institute**

1 hour credit.

A one-hour course requiring students to help raise the funds to pay the group expenses to attend one American Humanics Management Institute, a four-day conference and simulation exercise where students have the opportunity to apply what they have studied about managing nonprofit organizations. May be repeated once for credit. (Formerly YHS 4901. Credit cannot be earned for both NPO 4901 and YHS 4901.)

**4933, 6 Internship in Nonprofit Management**

3 or 6 hours credit. Prerequisite: Approval of Nonprofit Management Coordinator.

Supervised experience within selected nonprofit agencies. May be repeated for credit, but no more than 6 semester credit hours may be earned through the internship. (Formerly YHS 4933 and YHS 4936. Credit cannot be earned for both NPO 4933 and YHS 4933 or for both NPO 4936 and YHS 4936.)

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Photo – Chapter 7: College of Sciences

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## COLLEGE OF SCIENCES

### COLLEGE HONORS

The College of Sciences designates certain of its outstanding students as Honors students and provides the opportunity for advanced study under close faculty supervision.

Selection for honors designation is based on the student's academic performance and recommendation by the faculty of the student's major discipline. To be eligible for the program, students must have a minimum overall grade point average of 3.0 at UTSA and a minimum grade point average of 3.0 in their major at UTSA. These minimum averages must be maintained for students to receive the approval of the College Honors Committee and the discipline faculty. Students applying for College Honors are expected to enroll in the appropriate honors research course during their final two semesters. The completed research paper must be approved by the supervising faculty sponsor and another college faculty member. Students interested in this program should contact their faculty advisors for additional information.

### DEPARTMENT OF BIOLOGY

The Department of Biology offers a Bachelor of Science degree in Biology. The degree is structured around a comprehensive core curriculum and related offerings in chemistry, physics, and mathematics that lead to more highly specialized areas in the life sciences, such as biochemistry, cellular biology, developmental biology, ecology, neurobiology, genetics, microbiology, molecular biology, and physiology.

#### Bachelor of Science Degree in Biology

The minimum number of semester credit hours required for the Bachelor of Science degree in Biology, including the Core Curriculum requirements, is 126. Thirty-nine of the total semester credit hours required for the degree must be at the upper-division level. All major and support work courses must be completed with a grade of "C" or better. Students seeking teacher certification should contact the Teacher Advising and Certification Center in the College of Education and Human Development for information. Undergraduates seeking elementary teacher certification must complete the interdisciplinary studies degree.

All candidates for this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Science degree in Biology must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II

<b>Domain I: Mathematics and Science</b>	<p><b>Mathematics</b> (3 semester credit hours) Any 3 hours from the following list will satisfy this core requirement: MAT 1214 Calculus I STA 1993 Statistical Methods for the Life and Social Sciences</p> <p><b>Science</b> (6 semester credit hours) Any 6 semester credit hours from the following list will satisfy this core requirement: BIO 1113 Biology I BIO 1123 Biology II BIO 1143 Biology III CHE 1103 General Chemistry I CHE 1303 General Chemistry II PHY 1603, 1611 General Physics I and Laboratory PHY 1623, 1631 General Physics II and Laboratory</p>
<b>Domain II: Society and Culture</b>	<p><b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Degree Requirements

A. 51 semester credit hours in the major, 32 of which must be at the upper-division level:

1. 26 semester credit hours in biology are required:

BIO 1113	Biology I
BIO 1122	Laboratory Investigations in Biology
BIO 1123	Biology II
BIO 1143	Biology III
BIO 2313, 2322	Genetics and Laboratory
BIO 3513, 3522	Biochemistry and Laboratory
BIO 3813, 3822	Cellular Biology and Laboratory

2. 10 semester credit hours of upper-division biology electives; two of the following must be completed:
 

BIO	3283, 3292	Principles of Ecology and Laboratory
BIO	3413, 3422	General Physiology and Laboratory
BIO	3433, 3442	Neurobiology and Laboratory
BIO	3713, 3722	Microbiology and Laboratory
BIO	4143, 4152	Developmental Biology and Laboratory
  
  3. 15 additional semester credit hours of biology electives, 12 of which must be at the upper-division level
- B. 25 to 26 semester credit hours of support work:
1. 14 semester credit hours are required in chemistry:
 

CHE	1103	General Chemistry I
CHE	1303	General Chemistry II
CHE	1312	General Chemistry II Laboratory
CHE	2204, 2242	Organic Chemistry I and Laboratory
  
  2. A minimum of 3 semester credit hours of mathematics selected from the following:
 

MAT	1214	Calculus I
STA	1993	Statistical Methods for the Life and Social Sciences
  
  3. 8 semester credit hours of physics:
 

PHY	1603, 1611	General Physics I and Laboratory
PHY	1623, 1631	General Physics II and Laboratory
- C. 17 semester credit hours of free electives, some of which need to be upper-division to meet University requirements of 39 hours of upper-division coursework.

## COURSE DESCRIPTIONS

### BIOLOGY (BIO)

- 1033 Drugs and Society**  
(3-0) 3 hours credit.  
An examination of licit and illicit drugs and their biosocial effects. Topics include pharmacology of alcohol, stimulants, hallucinogens, addiction, and abuse. May apply toward the Level I Core Curriculum requirement in interdisciplinary studies. [TCCN: PHED 1346.]
- 1113 Biology I**  
(3-0) 3 hours credit.  
An introduction to the science of biology, emphasizing basic cellular principles. Topics include biochemistry, cell biology, metabolism, molecular biology, and genetics. May apply toward the Level I Core Curriculum requirement in science. (Formerly BIO 1203. Credit cannot be earned for both BIO 1113 and BIO 1203.) [TCCN: BIOL 1306.]
- 1122 Laboratory Investigations in Biology**  
(0-6) 2 hours credit.  
Introduction to the tools, techniques, and topics of modern experimental biology. (Formerly BIO 1212. Credit cannot be earned for both BIO 1122 and BIO 1212.) [TCCN: BIOL 1106.]

**1123 Biology II**

(3-0) 3 hours credit. Prerequisite: BIO 1113.

An introduction to the science of biology, emphasizing the structure and function of plants and animals. Topics include plant physiology, animal physiology, sexual reproduction, and development. May apply toward the Level II Core Curriculum requirement in science. (Formerly BIO 1203. Credit may not be earned for both BIO 1123 and BIO 1203.)

**1143 Biology III**

(3-0) 3 hours credit. Prerequisite: BIO 1113.

An introduction to the science of biology, emphasizing a comparative study of the diversity of life forms and their interactions with the environment. Topics include the decomposers, the producers, the consumers, ecology, and evolution. May apply toward the Level II Core Curriculum requirement in science. (Formerly BIO 1223. Credit cannot be earned for both BIO 1143 and BIO 1223.)

**2003 Biology of Human Reproduction**

(3-0) 3 hours credit.

An in-depth look at human reproductive anatomy, physiology, and behavior. Topics to be considered include anatomy, sex differentiation, neuroendocrine physiology, conception and development, birth control, and sexually transmitted diseases. (Formerly BIO 1023. Credit cannot be earned for both BIO 2003 and BIO 1023.)

**2123 Comparative Anatomy of Vertebrates**

(3-0) 3 hours credit. Prerequisites: BIO 1113 and BIO 1122. BIO 1143 is recommended. Concurrent enrollment in BIO 2132 is recommended.

A detailed study of anatomical differences and similarities of vertebrates with reference to evolutionary changes.

**2132 Comparative Anatomy of Vertebrates Laboratory**

(0-6) 2 hours credit. Prerequisite: Concurrent enrollment in BIO 2123 is recommended.

**2313 Genetics**

(3-0) 3 hours credit. Prerequisites: BIO 1113, BIO 1122, and CHE 1103 or the equivalent. Concurrent enrollment in BIO 2322 is recommended.

Principles governing transmission of hereditary factors in plants and animals, with emphasis on molecular biochemical and population genetics. [TCCN: BIOL 2316.]

**2322 Genetics Laboratory**

(0-6) 2 hours credit. Optional for nonmajors. Concurrent enrollment in BIO 2313 is recommended.

**2343 Plants and Society**

(3-0) 3 hours credit. Prerequisites: BIO 1113, BIO 1123, and BIO 1143.

The importance of plants and plant-derived products to human health and well being through the provision of food, pharmaceuticals, and other important natural products.

**3003 Introduction to Marine Biology**

(3-0) 3 hours credit. Prerequisites: BIO 1113, BIO 1122, and BIO 1143.

An introduction to the physio-chemical factors that affect the biology of marine organisms.

**3013 Introductory Pathology**

(3-0) 3 hours credit. Prerequisites: BIO 1113, BIO 1122, and BIO 1123 or AHS 2103.

Concepts of disease and diagnosis of pathological conditions.

**3033 Human Physiology and Performance**

(3-0) 3 hours credit. Prerequisite: BIO 3413 or AHS 2103.

A systematic application of physiological principles to human equipment and space to improve adaptation and performance in the work environment.

- 3063 Invertebrate Biology**  
(3-0) 3 hours credit. Prerequisites: BIO 1113, BIO 1122, and BIO 1143.  
A comprehensive study of the invertebrates with emphasis on their diversity, morphology, ecology, and evolution.
- 3083 Biosocial Genetics**  
(3-0) 3 hours credit. Prerequisite: Consent of instructor.  
A study of human heredity and social issues, with emphasis on inherited diseases, genetic problems, and evolutionary change in relation to culture, diversity, and mating systems.
- 3103 Biotechnology**  
(3-0) 3 hours credit. Prerequisites: BIO 1113 and BIO 1122.  
An introduction to recent advances in biology related to biotechnology. Discussion of how advances might be used to promote basic research in medicine, agriculture, and other industries.
- 3163 Histology and Cytology**  
(3-0) 3 hours credit. Prerequisites: BIO 1113, BIO 1122, and BIO 1123. Concurrent enrollment in BIO 3172 is recommended.  
The cytological and histological aspects of cellular organization.
- 3172 Histology and Cytology Laboratory**  
(0-6) 2 hours credit. Concurrent enrollment in BIO 3163 is recommended.  
Microscopic study of tissues and organs. Basic techniques to prepare tissues will be studied.
- 3213 Animal Behavior**  
(3-0) 3 hours credit. Prerequisite: BIO 1113, BIO 1122, BIO 1143, or consent of instructor.  
A detailed study of animal behaviors and their biological determinants.
- 3263 The Woody Plants**  
(2-3) 3 hours credit. Prerequisite: Consent of instructor.  
A study of the woody plants emphasizing the characteristics of family, genus, species. Includes identification of the common woody plants. Leaf, stem, and flower morphology, anatomy, and collecting techniques. Lecture, laboratory, and fieldwork will be included as part of the course.
- 3273 Biology of Flowering Plants**  
(2-3) 3 hours credit.  
A study of the wildflowers of Texas emphasizing identification of the more common wildflowers, as well as family characteristics, flower anatomy, and plant morphology. Plant-collecting techniques and wildflower photography will be included. Lecture, laboratory, and fieldwork are also part of the course.
- 3283 Principles of Ecology**  
(3-0) 3 hours credit. Prerequisites: BIO 1113, BIO 1122, and BIO 1143 or consent of instructor; completion of the Core Curriculum requirement in mathematics. Concurrent enrollment in BIO 3292 is recommended for biology majors.  
A study of the interaction of organisms with their environment, with focus on ecological principles, adaptations of organisms, environmental pollution, and principles of conservation.
- 3292 Principles of Ecology Laboratory**  
(0-6) 2 hours credit. Concurrent enrollment in BIO 3283 is recommended.  
A field-oriented course emphasizing modern ecological techniques, including examinations of plant and animal populations and measurement of selected chemical and physical parameters.
- 3323 Evolution**  
(3-0) 3 hours credit. Prerequisite: BIO 2313.  
A discussion of theories and possible mechanisms for evolutionary changes at various levels of organization.

**3343 Plant Sciences**

(3-0) 3 hours credit. Prerequisites: BIO 1113, BIO 1122, BIO 1123 and BIO 1143.

A comprehensive study of the plant kingdom, including the structure, physiology and function of plants and their importance in our lives as sources of food, fiber and pharmaceuticals.

**3351 Plant Sciences Laboratory**

(0-3) 1 hour credit. Concurrent enrollment in BIO 3343 is recommended.

**3413 General Physiology**

(3-0) 3 hours credit. Prerequisites: BIO 1113, BIO 1122, and BIO 1123, and CHE 1303. BIO 1143 is recommended. Concurrent enrollment in BIO 3422 is recommended.

Fundamental properties and processes in living systems. (Same as AHS 2103. Credit cannot be earned for both BIO 3413 and AHS 2103.)

**3422 General Physiology Laboratory**

(0-6) 2 hours credit. Concurrent enrollment in BIO 3413 is recommended.

(Same as AHS 2111. Credit cannot be earned for both BIO 3422 and AHS 2111.)

**3433 Neurobiology**

(3-0) 3 hours credit. Prerequisites: BIO 3413 and BIO 3422. Concurrent enrollment in BIO 3442 is recommended.

Anatomy and physiology of nervous systems; the mechanisms of neuronal functions.

**3442 Neurobiology Laboratory**

(0-6) 2 hours credit. Concurrent enrollment in BIO 3433 is recommended.

A laboratory course emphasizing principles presented in BIO 3433.

**3513 Biochemistry**

(3-0) 3 hours credit. Prerequisites: CHE 2204 and CHE 2242; BIO 2313 is also recommended.

Introduction to biochemistry: amino acids, protein structure, enzymes, lipids, metabolism, nucleic acid structure, bioenergetics, and carbohydrates. Concurrent enrollment in BIO 3522 is recommended.

**3522 Biochemistry Laboratory**

(0-6) 2 hours credit. Concurrent enrollment in BIO 3513 is recommended.

Basic biochemical laboratory techniques: titration, protein purification, enzyme kinetics, chromatography, electrophoresis, and centrifugation.

**3613 The Biology of Aging**

(3-0) 3 hours credit. Prerequisite: BIO 1113. BIO 1123 is recommended.

The biological principles of human life and health; the changes that occur with aging and their implications for the lives of students and their families.

**3623 Neuropsychopharmacology**

(3-0) 3 hours credit. Prerequisite: BIO 1113. BIO 1123 is recommended.

A study of the pharmacology of drugs that affect the function of the central nervous system. Topics include drug-receptor interactions, drugs of abuse, and drugs used to treat mental illness.

**3633 Human Environmental Physiology**

(3-0) 3 hours credit. Prerequisite: BIO 3413 or AHS 2103.

Adaptive physiological responses to unusual environmental conditions.

**3663 Human Embryology**

(3-0) 3 hours credit. Prerequisites: BIO 1113, BIO 1122, and BIO 1123, or consent of the instructor.

Course will cover the development of the human embryo from fertilization to the birth of the fetus. The origin of various tissues and organs will be followed during development. The environmental and genetic factors that can alter development will be discussed.

- 3713 Microbiology**  
(3-0) 3 hours credit. Prerequisite: BIO 2313. Concurrent enrollment in BIO 3722 is recommended.  
A comprehensive study of microorganisms, including their composition, morphology, growth, metabolism, classification, ecology, and significance in disease. (Same as AHS 1053. Credit cannot be earned for both BIO 3713 and AHS 1053.)
- 3722 Microbiology Laboratory**  
(0-6) 2 hours credit. Concurrent enrollment in BIO 3713 is recommended.  
(Same as AHS 1061. Credit cannot be earned for both BIO 3722 and AHS 1061.)
- 3733 Industrial Microbiology**  
(3-0) 3 hours credit. Prerequisites: BIO 3713 and BIO 3722.  
A study of genetic engineering of industrial microorganisms, industrial fermentation methodologies, quality control, and biotransformations used for the microbial manufacture of foods, beverages, antibiotics, enzymes, single-cell proteins, and industrial chemicals.
- 3813 Cellular Biology**  
(3-0) 3 hours credit. Prerequisite: BIO 3413 or BIO 3513. Concurrent enrollment in BIO 3822 is recommended.  
A study of cellular function with relation to structure from the microscopic to the molecular level.
- 3822 Cellular Biology Laboratory**  
(0-6) 2 hours credit. Concurrent enrollment in BIO 3813 is recommended.
- 3913 Molecular Biology**  
(3-0) 3 hours credit. Prerequisites: BIO 1143 and CHE 2204.  
A study of nucleotides, DNA, replication, recombination, RNA, transcription, genetic code, translation, genomes, and chromosomes.
- 3922 Molecular Biology Laboratory**  
(0-6) 2 hours credit. Prerequisites: BIO 1122, BIO 1123, and CHE 2204. Concurrent enrollment in or completion of BIO 3913 is recommended.  
Techniques, including isolation of DNA and RNA, restriction enzyme digestion, working with plasmids, detection of specific sequences by Southern or Northern blotting, polymerase chain reaction (PCR), reverse transcriptase-PCR, basics of gene cloning.
- 4023 Environmental Toxicology**  
(3-0) 3 hours credit. Prerequisite: BIO 3413.  
Environmental toxicants will be studied in terms of carcinogenicity, teratogenicity, actions on physiological processes, and impact on environmental systems.
- 4033 Conservation Biology**  
(3-0) 3 hours credit. Prerequisite: BIO 3283.  
The class topics will include studying the nature of the biosphere, threats to its integrity, and ecologically sound responses to these threats. Also included will be the origin and preservation of biotic diversity, how the rich variety of plant and animal life arose, how it has been maintained by natural processes, and how its destruction can be prevented.
- 4043 Desert Biology**  
(2-3) 3 hours credit. Prerequisites: BIO 3283 and BIO 3292.  
A study of the deserts of the world with an emphasis on U.S. deserts. Adaptations of plants and animals and their responses to desert conditions, as well as examinations of desert climatic patterns, geology, and natural history. Lecture, laboratory, and fieldwork will be included.

**4053 Wildlife Biology**

(3-0) 3 hours credit. Prerequisite: BIO 3283.

An introduction to wildlife biology and management including ecological principles dealing with ecosystems, natural communities, and populations. The importance of animal behavior, the availability of food, cover, wildlife diseases, predators, hunting, and trapping will be included. Topics important to water, soils, farmlands, rangelands, and forest management will be addressed as well as the conservation of nongame and endangered wildlife.

**4063 Ornithology**

(2-3) 3 hours credit.

A course covering various aspects of the biology of birds, including anatomy, physiology, systematics, evolution, behavior, ecology, and biogeography. Field trips will be included.

**4073 Law, Ethics, and the Life Sciences**

(3-0) 3 hours credit. Prerequisite: Junior or senior status, or consent of instructor.

Current developments in biology such as recombinant DNA, embryo transplants, life-preserving processes, reproductive and population control, and the impact of biotechnology on enactment of new legislation and ethics in general.

**4083 Entomology**

(3-0) 3 hours credit. Prerequisites: BIO 3413 and BIO 3513, or consent of instructor.

Insect taxonomy and systematics, evolution, anatomy, physiology, reproduction, development and ecology.

**4133 The Biotechnology of Malting and Brewing**

(3-0) 3 hours credit. Prerequisites: BIO 3513, BIO 3522, BIO 3713, and BIO 3722.

A study of the scientific principles underlying brewing and other fermentation technology.

**4143 Developmental Biology**

(3-0) 3 hours credit. Prerequisites: BIO 1113, BIO 1123, BIO 1143, BIO 3513, and BIO 3813. Concurrent enrollment in BIO 4152 is recommended.

Sequential analysis of development and the factors which affect fertilization, organogenesis, and implantation. (Formerly BIO 3143. Credit cannot be earned for both BIO 4143 and BIO 3143.)

**4152 Developmental Biology Laboratory**

(0-6) 2 hours credit. Concurrent enrollment in BIO 4143 is recommended.

(Formerly BIO 3152. Credit cannot be earned for both BIO 4152 and BIO 3152.)

**4203 Plant Ecology**

(3-0) 3 hours credit. Prerequisite: BIO 3283, BIO 3292, or consent of instructor. Concurrent enrollment in BIO 4221 is recommended.

A study of the major biomes of North America and Texas, including the chemical, physical, and biological factors that influence the development of these biomes.

**4221 Plant Ecology Laboratory**

(0-3) 1 hour credit. Concurrent enrollment in BIO 4203 is recommended.

Provides the opportunity for field-oriented study to examine qualitative and quantitative methods and evaluate plant communities.

**4233 Field Biology**

(3-0) 3 hours credit. Prerequisites: BIO 1113, BIO 1122, and BIO 1143 or consent of instructor. Concurrent enrollment in BIO 4241 is recommended.

A study of the natural history of plants and animals in their native environment. Techniques for the identification of birds, mammals, reptiles, amphibians, insects, and the dominant flowering plants will be discussed.

**4241 Field Biology Laboratory**

(0-3) 1 hour credit. Concurrent enrollment in BIO 4233 is recommended.

A field-oriented course offering the opportunity for practical experience observing, collecting, and identifying Texas plants and animals.

- 4333 Population Genetics**  
(3-0) 3 hours credit. Prerequisites: BIO 2313 and BIO 2322.  
A quantitative approach to the study of genetics systems in populations, including mutations, selection, polymorphism, and mating systems.
- 4343 Molecular Genetics**  
(3-0) 3 hours credit. Prerequisites: BIO 2313 and BIO 2322. Concurrent enrollment in BIO 4352 is recommended.  
Application of recombinant DNA techniques to the study of animals and plants in industry, medicine, and research.
- 4352 Molecular Genetics Laboratory**  
(0-6) 2 hours credit. Prerequisites: BIO 2313 and BIO 2322. Concurrent enrollment in BIO 4343 is recommended.  
A laboratory course emphasizing techniques for cloning, sequencing, and analyzing recombinant DNA molecules.
- 4353 Comparative Animal Physiology**  
(3-0) 3 hours credit. Prerequisites: BIO 3413 and BIO 3422.  
A phylogenetic study of physiologic adaptation in animals.
- 4453 Endocrinology**  
(3-0) 3 hours credit. Prerequisites: BIO 3413, BIO 3422, BIO 3513, and BIO 3522. Concurrent enrollment in BIO 4462 is recommended.  
A consideration of the physiological effects of hormones on the organism in health and disease, with a study of the gross and microscopic morphology of the glands of internal secretion.
- 4462 Endocrinology Laboratory**  
(0-6) 2 hours credit. Concurrent enrollment in BIO 4453 is recommended.  
A laboratory course emphasizing principles presented in BIO 4453.
- 4523 Intermediary Metabolism**  
(3-0) 3 hours credit. Prerequisites: BIO 3513 and BIO 3522.  
A detailed consideration of metabolic pathways and energy metabolism and their regulation.
- 4592 Advanced Neurobiology Laboratory**  
(0-6) 2 hours credit. Concurrent enrollment in BIO 4593 is required.  
Instruction and hands-on training in techniques of in vitro electrophysiology, neural modeling, cell culture, and molecular neurobiology.
- 4593 Advanced Neurobiology**  
(3-0) 3 hours credit. Prerequisites: BIO 3433 and BIO 3442. Concurrent enrollment in BIO 4592 is required.  
A lecture-seminar course with an emphasis on current topics in neurophysiological, neurocomputational, cellular and molecular biological research.
- 4603 Plant Physiology**  
(3-0) 3 hours credit. Prerequisites: BIO 3343 and BIO 3351, and CHE 2204 and CHE 2242. Concurrent enrollment in BIO 4611 is recommended.  
Principles of organization of cellular activity and molecular structure of protoplasm; includes nutrition, translocation, mineral metabolism, respiration, and photosynthesis.
- 4611 Plant Physiology Laboratory**  
(0-3) 1 hour credit. Concurrent enrollment in BIO 4603 is recommended.  
Qualitative and quantitative experiments in the study of plant physiology.
- 4643 Medicinal Plants**  
(3-0) 3 hours credit. Prerequisites: BIO 1113, BIO 1123, BIO 1143, and CHE 2204.  
Ethnobotanical, biochemical and pharmacological aspects of some of our most important plant-derived drugs.

**4663 Plant Development**

(3-0) 3 hours credit. Prerequisite: BIO 3343. BIO 3513 is recommended.

A study of the growth and development of plants, with an emphasis on the hormonal control of plant development.

**4723 Virology**

(3-0) 3 hours credit. Prerequisites: BIO 3713, BIO 2313, and BIO 3513. Concurrent enrollment in BIO 4732 is recommended.

A study of the diversity of viruses and biochemical mechanisms for their replication.

**4732 Virology Laboratory**

(0-6) 2 hours credit. Concurrent enrollment in BIO 4723 is recommended.

A laboratory course emphasizing the principles of virus replication, genetics, and structure. Introduction to modern laboratory techniques for virus propagation, detection, quantitation, and for genetic-phenotypic analysis. (Formerly BIO 4731. Credit cannot be earned for both BIO 4732 and 4731.)

**4743 Immunology**

(3-0) 3 hours credit. Prerequisites: BIO 3513 and BIO 3522, or BIO 3713 and BIO 3722. Concurrent enrollment in BIO 4752 is recommended.

A study of the properties of antigens and antibodies and current concepts of humoral and cell-mediated immunity and the cells involved.

**4752 Immunology Laboratory**

(0-6) 2 hours credit. Concurrent enrollment in BIO 4743 is recommended.

**4763 Parasitology**

(3-0) 3 hours credit. Prerequisites: BIO 3713 and BIO 3722. Concurrent enrollment in BIO 4772 is recommended.

A study of the animal parasites of humans and related hosts, with emphasis on their epidemiology, life cycles, pathology, and control.

**4772 Parasitology Laboratory**

(0-6) 2 hours credit. Concurrent enrollment in BIO 4763 is recommended.

**4813 Brain and Behavior**

(3-0) 3 hours credit. Prerequisite: BIO 1113, BIO 1123, and BIO 1122, or consent of instructor.

Basic physiological functions of the brain and how they relate to behavior.

**4911-3 Independent Study**

1 to 3 hours credit. (Hours arranged.) Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, and the Department Chair, and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4951-3 Special Studies in Biology**

(1-0, 2-0, 3-0) 1 to 3 hours credit. Prerequisite: Consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when the topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4963 Seminar in Biology**

(3-0) 3 hours credit. Prerequisite: Minimum of 20 semester credit hours in biological sciences.

An undergraduate seminar surveying selected biological topics through presentation and discussion of relevant contemporary research and literature. May not be repeated for credit. Limited to biology majors in their junior or senior year.

**4972 MBRS-MARC Symposium**

(2-0) 2 hours credit. Prerequisites: BIO 1113 or concurrent enrollment; CHE 1103; or consent of instructor.

A course involving presentations at the frontiers of chemistry, biochemistry, biophysics, and biology, including genetics, microbiology, physiology, and other areas. Course may be repeated for credit, but not more than 6 semester credit hours may be applied to a bachelor's degree.

**4993 Honors Research**

3 hours credit. Prerequisite: Enrollment limited to candidates for honors in biology and approval by the Honors College.

Supervised research and preparation of an honors thesis. May be repeated once with approval.

## **JOINT ALLIED HEALTH SCIENCE PROGRAMS**

A joint degree program with The University of Texas Health Science Center at San Antonio (UTHSCSA) leading to the Bachelor of Science degree in Clinical Laboratory Sciences is available. A degree in this allied health program is awarded jointly. Completion of joint program prerequisites does not guarantee or imply preferential admittance to the professional phase of the program.

The preclinical curriculum for Clinical Laboratory Sciences (CLS) includes Core Curriculum requirements, basic science lecture and laboratory courses, and CLS courses. Clinical laboratory science concepts are introduced throughout the curriculum, ending in a senior-year clinical practicum at UTHSCSA. Upon completion of all requirements, the student is eligible to take one of the clinical laboratory sciences national certification examinations.

**Preprofessional Curriculum**

Also available are preprofessional courses offering students the opportunity to prepare for admission to nursing, medical, dental, and other professional schools.

UTSA offers courses that fulfill the nursing preprofessional curriculum requirements for The University of Texas Health Science Center at San Antonio. All coursework listed will transfer to UTHSCSA without any loss of credit. Specific premedical and pre dental programs are not offered at UTSA. Admission requirements for these professional schools are outlined in a separate section of this catalog. Additional information can be obtained from the Department of Biology and through the chairman of the Health Professions Advisory Committee (HPAC) of UTSA.

**Professional Liability (Malpractice) Insurance Requirement**

Allied health students are required by policies of the Board of Regents of The University of Texas System to show evidence of professional liability (malpractice) insurance coverage *prior to official registration for courses that involve a clinical situation*. Additional information on the requirement for obtaining such coverage is available from the Department Chair of the Department of Biology.

**UTSA/UTHSCSA Joint Bachelor of Science Degree in Clinical Laboratory Sciences (CLS)**

Certain specific physical skills and abilities are required to successfully participate in the Clinical Laboratory Sciences program. Students may wish to inquire regarding these physical requirements before seeking admission to the program or registering for specific courses in the program.

In the joint degree program, clinical laboratory sciences courses are offered throughout the course of study. A clinical practicum experience is included in the senior year. Students complete clinical laboratory sciences courses during their sophomore and junior years and enroll in classes on both the UTSA and UTHSCSA campuses. All CLSC courses are taught at UTHSCSA and are listed separately.

For consideration for admission into the joint degree program, students must complete a separate application form. This form may be obtained from the UTHSCSA Web site (<http://www.uthscsa.edu>), or the Registrar's Office at The University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, Texas 78284. This application should be submitted by May 1 for fall admission and October 1 for spring admission. Students must be admitted to UTHSCSA and advised by a UTHSCSA faculty member before they enroll in CLSC courses. Minimum requirements for admission to UTHSCSA include 30 semester credit hours of college work, an overall grade point average of 2.5, and no grade lower than a "C" in any support science course.

Admission to and successful continuation in the program will provide the student with a clinical practicum position at one of the UTHSCSA teaching affiliates. A list of these affiliates may be obtained from the Department of Clinical Laboratory Sciences at UTHSCSA.

The clinical laboratory sciences program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences. Upon successful completion of this joint degree program, students are eligible to take one of the national certification examinations. All students are required to be counseled each semester by either the CLS department chair or a member of the CLS faculty to ensure enrollment in appropriate coursework.

The minimum number of semester credit hours required for this degree, including the 42 hours of Core Curriculum requirements, is 144.

All candidates for this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the UTSA/UTHSCSA Joint Bachelor of Science degree in Clinical Laboratory Sciences must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MAT 1093 Precalculus <b>Science</b> (6 semester credit hours) Any two of these courses may be used to satisfy this core requirement: BIO 1113 Biology I CHE 1103 General Chemistry I CHE 1303 General Chemistry II PHY 1603, 1611 General Physics I and Laboratory PHY 1623, 1631 General Physics II and Laboratory

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Economics</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Degree Requirements

#### A. 50 semester credit hours in support work:

##### 1. 25 semester credit hours in the biological sciences:

AHS	1883	Introduction to Clinical Laboratory Sciences
BIO	1113	Biology I
BIO	1122	Laboratory Investigations in Biology
BIO	1123	Biology II
BIO	2313	Genetics
BIO	3413	General Physiology
		or
AHS	3463	Human Physiology
BIO	3513	Biochemistry
BIO	3713, 3722	Microbiology and Laboratory

##### 2. 16 semester credit hours in chemistry:

CHE	1103	General Chemistry I
CHE	1122	General Chemistry I Laboratory
CHE	1303	General Chemistry II
CHE	1312	General Chemistry II Laboratory
CHE	2204, 2242	Organic Chemistry I and Laboratory

##### 3. 6 semester credit hours in mathematics:

MAT	1093	Precalculus
STA	1053	Basic Statistics

##### 4. 3 semester credit hours in computer science

B. 60 semester credit hours in clinical laboratory sciences, all of which must be completed at UTHSCSA:

1. These courses are taken prior to clinical training and are integrated with support work taken at UTSA:

CLSC	3051, 3052	Hematology/Laboratory	5 hours
CLSC	3004, 3003	Parasitology & Mycology/Laboratory	3 hours
CLSC	3001	Phlebotomy Practicum	0.5 hours
CLSC	3010	Body Fluids	2 hours
CLSC	3033, 3034	Medical Microbiology/Laboratory	5 hours
CLSC	3060, 3064	Immunohematology/Laboratory	3.5 hours
CLSC	3072,3073	Molecular/Immunological Diagnostics	5 hours
CLSC	3081, 3082	Clinical Chemistry/Laboratory	4 hours

These courses are the senior lecture and clinical experience courses:

CLSC	4033	Advanced Medical Microbiology	2 hours
CLSC	4037	Microbiology Practicum	4 hours
CLSC	4053	Advanced Hematology	2 hours
CLSC	4055	Advanced Immunohematology	2 hours
CLSC	4057	Hematology Practicum	4 hours
CLSC	4070	Immunology Practicum	2 hours
CLSC	4067	Immunohematology Practicum	5 hours
CLSC	4083	Advanced Clinical Chemistry	3 hours
CLSC	4087	Chemistry Practicum	4 hours
CLSC	4092	Management I	1 hour
CLSC	4093	Management II	2 hours
INTD	4006	Professional Issues	1 hour

### **Postbaccalaureate Clinical Laboratory Sciences Certificate Option**

The postbaccalaureate certificate option in Clinical Laboratory Sciences is designed for students who hold a bachelor's degree in science from an accredited institution. The curriculum includes 62 semester credit hours of professional coursework. Prerequisite science requirements not completed as a part of a bachelor's degree may be taken as a part of the certificate curriculum. The certificate option course of study is 18 months long.

In addition, the program offers a categorical certificate designed for individuals with a bachelor's degree in science who are interested in a particular subdiscipline of the clinical laboratory. These certificates are available in Microbiology, Clinical Chemistry, Immunohematology, and Hematology, Molecular Diagnostics and Cytogenetics. (The Molecular Diagnostics and Cytogenetics catagoricals may also be completed as a UTHSCSA baccalaureate degree.) Students can complete the categorized requirements in 12 to 18 months, based on part-time enrollment. Successful completion of the certificate curriculum qualifies students to take the national certification examinations as generalists or categorical scientists.

Interested persons should contact the Department of Clinical Laboratory Sciences at UTHSCSA for further details.

### **UTHSCSA Bachelor of Science Degree in Nursing**

The UTHSCSA nursing degree program is fully accredited by the Commission on Collegiate Nursing Education. The program is composed of two phases. In Phase I students complete a minimum of 62 semester credit hours (two years) of prenursing course requirements available at UTSA. Phase I coursework plan at UTSA should be pre-approved by the UTSA Health Professions Advisor. Phase II requires students to complete 62 semester credit hours of courses in the nursing major through either the Generic Process or Flexible Process track at the UTHSCSA School of Nursing. The minimum number of semester credit hours required for this degree is 120.

Admission into Phase I must be made through UTSA. Admission into Phase II must be made through UTHSCSA. Students who have completed 40 to 45 semester credit hours of Phase I courses may request an application for admission from the Office of Nursing Admissions at UTHSCSA. Questions about Phase I prenursing course requirements and requests for admission applications should be addressed to:

Nursing Admissions  
Office of Student Services  
The University of Texas Health Science Center at San Antonio  
7703 Floyd Curl Drive  
San Antonio, Texas 78284-7702  
(210) 567-2670

Information is available on the Internet at <http://www.uthscsa.edu/>.

Application for admission to Phase II must be made by February 1 for Fall Semester admission and September 1 for Spring Semester admission. Applicants must have an overall grade point average of 2.0 and a grade point average of 2.5 in prenursing course requirements in order to be considered for admission. ***Students with higher grade point averages will be more competitive.***

Applicants must have passed all sections of the Texas Success Initiative (TSI) and must meet minimum standards before they may enroll in upper-division (Phase II) coursework. Students may not enroll in the upper-division nursing courses until they have completed the 62 semester credit hours of prerequisite courses and have been formally accepted by UTHSCSA.

Students admitted to the School of Nursing must be certified in cardiopulmonary resuscitation (CPR) before registration. Students must pass a Criminal Background Check prior to admission.

**Phase I:** 62 semester credit hours at UTSA. All courses are subject to approval by the School of Nursing when the student applies for Phase II.

A. 23 semester credit hours of natural and physical sciences:

AHS	2043	Nutrition
AHS	2083, 2091	Human Biology: Anatomy and Laboratory*
AHS	2103, 2111	Human Biology: Physiology and Laboratory*
AHS	1053, 1061	Introductory Microbiology and Laboratory
CHE	1003, 1011	Chemistry for Allied Health Sciences and Laboratory*
CHE	1203, 1211	Elementary Organic and Biochemistry and Laboratory

\*BIO 1113 Biology I and BIO 1122 Laboratory Investigations in Biology are prerequisites to the above Allied Health Sciences courses.

B. 15 semester credit hours in the behavioral sciences, visual and performing arts, and humanities:

- Behavioral Sciences (9 semester credit hours)
 

PSY	1013	Introduction to Psychology
PSY	2503	Developmental Psychology
SOC	1013	Introduction to the Study of Society
- Visual and Performing Arts (3 semester credit hours)  
Courses with prefixes ART, AHC, MUS, or equivalent
- Humanities (3 semester credit hours)  
Literature, cultural studies, philosophy, modern or classical languages/literature

## C. 24 semester credit hours in other basic requirements:

## 1. 6 semester credit hours required:

MTC	1023	College Algebra with Applications (or higher)
STA	1053	Basic Statistics

## 2. 18 semester credit hours of UTSA Core Curriculum requirements (for a listing of the courses that fulfill these requirements, see pages 9-13 of this catalog):

Rhetoric	WRC 1013 and 1023
U.S. History	6 semester credit hours chosen from HIS 1043, 1053, 3003, 3023, 3033, 3093, 3173, 3183, 3423, 3433, 3443, 3473, 3813, 3823, 4123
U.S. Government	6 semester credit hours chosen from HIS 2053, 3123, 2301

**Phase II:** One of the following plans, completed at UTHSCSA:

## A. Generic Plan\*

The following lists the courses in the Generic Process Program Plan. This plan may be taken on a full-time or part-time basis but must be completed within four years of initial enrollment in Phase II of the nursing program.

*FIRST SEMESTER*

NURS	3209	Introduction to Professional Nursing	2 hours
NURS	3312	Strategies for Professional Nursing/Pharmacotherapeutics	3 credits
NURS	3802	Strategies for Professional Nursing/The Nature of Health Transitions	8 credits

*SECOND SEMESTER*

NURS	3203	Strategies for Professional Nursing/Research	2 credits
NURS	3520	Strategies for Professional Nursing/Mental Health Transitions	5 credits
NURS	3610	Strategies for Professional Nursing/Chronic Health Transitions	6 credits

*THIRD SEMESTER*

NURS	4425	Strategies for Professional Nursing/Childbearing Families	4 credits
NURS	4435	Strategies for Professional Nursing/Childrearing Families	4 credits
NURS	4410	The Nurse as Professional/Leader-Manager	4 credits

*FOURTH SEMESTER*

NURS	4203	The Nurse as Professional	2 credits
NURS	4614	Strategies for Professional Nursing/Major Health Transitions	6 credits
NURS	4514	Strategies for Professional Nursing/Community as Partner	5 credits

\*Note: 3 semester credit hours in a nursing elective and 6 semester credit hours in nonnursing electives are also required for graduation. Students have the option of taking these Fall, Spring, or Summer Semesters. Nonnursing elective requirements may be satisfied with junior and senior level courses taken at UTSA.

## B. Flexible Process\*

Students must meet the 62 semester hour Pre-Nursing admission course requirements in Phase I. Only students with previous nursing experience are eligible for this plan. Although this program can be completed on a part-time basis, all work toward the degree must be completed within four years of the date of initial enrollment in Phase II of the nursing program. Some courses are offered by examination only. Credit for much of the program can be completed by examination also. For a complete list of these courses, contact the UTHSCSA School of Nursing.

*FIRST SEMESTER*

NURS	3312	Strategies for Professional Nursing/Pharmacotherapeutics	3 credits
NURS	3313	Strategies for Professional Nursing/Clinical Skills	3 credits (2 clinical)

NURS	3220	Strategies for Professional Nursing/ Mental Health Transitions	2 credits (1 clinical)
NURS	3409	Strategies for Professional Nursing/Transition to Professional Nursing Practice	4 credits (2 clinical)
<i>SECOND SEMESTER</i>			
NURS	4212	Strategies for Professional Nursing/Health Assessment	2 credits (1 clinical)
NURS	4214	The Nurse as Professional/Research	2 credits
NURS	4512	Strategies for Professional Nursing: Health Promotion	5 credits (2 clinical)
NURS	4410	The Nurse as Professional/Leader-Manager	4 credits (LVN's 2 clinical)
NURS	4312	or The Nurse as Professional/Leadership	3 credits (RN's 2 clinical)
<i>THIRD SEMESTER</i>			
NURS	4203	The Nurse as Professional	2 credits
NURS	4310	Strategies for Professional Nursing/The Family Across the Lifespan	3 credits
NURS	4514	Strategies for Professional Nursing/Community as Partner	5 credits (3 clinical)

\*Note: 3 semester credit hours in a nursing elective and 6 semester credit hours in nonnursing electives are also required for graduation. Students have the option of taking these in the Fall, Spring, or Summer Semesters. Nonnursing elective requirements may be satisfied with junior and senior level courses taken at UTSA.

## COURSE DESCRIPTIONS ALLIED HEALTH SCIENCES (AHS)

### **1053 Introductory Microbiology**

(3-0) 3 hours credit. Prerequisites: BIO 1113 and BIO 1122, or consent of instructor.

A general study of microorganisms, their characteristics, isolation, growth, and importance in nature, industry, public health, and human disease. (Credit cannot be earned for both AHS 1053 and BIO 3713.) [TCCN: BIOL 2320.]

### **1061 Introductory Microbiology Laboratory**

(0-3) 1 hour credit.

Credit cannot be earned for both AHS 1061 and BIO 3722. [TCCN: BIOL 2120.]

### **1883 Introduction to Clinical Laboratory Sciences**

(3-0) 3 hours credit. Prerequisite: CHE 1103 is recommended.

Overview of the profession of clinical laboratory sciences, including the clinical laboratory and its functions, relationship of physiological and pathological specimens to body systems, and medical terminology and medical laboratory calculations.

### **2043 Nutrition**

(3-0) 3 hours credit. Prerequisites: BIO 1113 and BIO 1122, or AHS 2103.

An examination of human nutritional needs from infancy to adulthood. [TCCN: BIOL 1322.]

### **2083 Human Biology: Anatomy**

(3-0) 3 hours credit. Prerequisites: BIO 1113 and BIO 1122.

Systemic anatomy of the human organism. Includes cell biology, histology, and gross anatomy of major organ systems. May not be applied to a B.S. in Biology. [TCCN: BIOL 2301.]

**2091 Human Biology: Anatomy Laboratory**

(0-3) 1 hour credit.

May not be applied to a B.S. in Biology. [TCCN: BIOL 2101.]

**2103 Human Biology: Physiology**

(3-0) 3 hours credit. Prerequisites: BIO 1113 and BIO 1122.

Physiological processes in human systems. May not be applied to a B.S. in Biology. [TCCN: BIOL 2302.]

**2111 Human Biology: Physiology Laboratory**

(0-3) 1 hour credit.

May not be applied to a B.S. in Biology. [TCCN: BIOL 2102.]

**3463 Human Physiology**

(3-0) 3 hours credit. Prerequisites: BIO 1113 and BIO 1122, CHE 1203 or CHE 2204, or consent of instructor.

Physiological processes in human systems.

## DEPARTMENT OF CHEMISTRY

### Bachelor of Science Degree in Chemistry

The Bachelor of Science degree in Chemistry provides opportunities for preparation for careers in industry, governmental agencies, environmental studies, preprofessional programs, and medical technology, and for graduate study in chemistry or other related fields. The degree plan, as described below, for the Bachelor of Science degree in Chemistry meets the minimum requirements for professional chemists as defined by the American Chemical Society, and recipients receive a certificate from the American Chemical Society.

The minimum number of semester credit hours required for this degree, including the Core Curriculum requirements, is 126. All major and support work courses must be completed with a grade of “C” or better.

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Science degree in Chemistry must fulfill University Core Curriculum requirements in the same manner of other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<i>Mathematics</i> (3 semester credit hours) MAT 1214 Calculus I <i>Science</i> (6 semester credit hours) Any 6 semester credit hours from the following list will satisfy this core requirement: CHE 1103 General Chemistry I CHE 1303 General Chemistry II PHY 1904, 1911 Technical Physics I and Laboratory PHY 1924, 1931 Technical Physics II and Laboratory
<b>Domain II: Society and Culture</b>	<i>United States History and Diversity</i> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <i>Political Studies</i> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <i>Social and Behavioral Sciences</i> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <i>Economics</i> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

<b>Domain III: Literature and the Arts</b>	<p><b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Degree Requirements

A. 55 semester credit hours of required courses in chemistry:

CHE	1103	General Chemistry I
CHE	1303	General Chemistry II
CHE	1312	General Chemistry II Laboratory
CHE	2204	Organic Chemistry I
CHE	2242	Organic Chemistry I Laboratory
CHE	2303	Organic Chemistry II
CHE	2342	Organic Chemistry II Laboratory
CHE	3103	Analytical Chemistry
CHE	3204	Thermodynamics
CHE	3212	Physical Chemistry Laboratory
CHE	3224	Kinetics and Quantum Theory
CHE	3264	Descriptive Inorganic Chemistry
CHE	4103	Instrumental Analysis
CHE	4243	Organic Chemistry III
CHE	4253	Spectroscopy
CHE	4263	Inorganic Chemistry
CHE	4503	Biochemistry
CHE	4923	Special Project in Chemistry
		or
CHE	4913	Independent Study
CHE	4971	Proseminar

B. 6 additional semester credit hours of approved upper-division chemistry electives, 3 hours of which must be an organized course in chemistry, at the senior level or above; no more than 3 semester credit hours may be from CHE 4913 Independent Study or CHE 4923 Special Project in Chemistry.

C. 20 semester credit hours of support work in science and mathematics:

1. 17 semester credit hours of required courses:

MAT	1214	Calculus I
MAT	1223	Calculus II
PHY	1904, 1911	Technical Physics I and Laboratory
PHY	1924, 1931	Technical Physics II and Laboratory

2. 3 additional semester credit hours of elective work from the College of Sciences, as approved by the advisor.

D. 3 semester credit hours in computer science:

CS 1033 Microcomputer Applications

E. 9 semester credit hours of electives

### Bachelor of Arts Degree in Chemistry

The Bachelor of Arts degree in Chemistry is a less comprehensive degree than the Bachelor of Science degree in Chemistry. It provides opportunities for preparation for careers in industry, governmental agencies, environmental studies, and preprofessional programs. It is not recommended for students planning to pursue graduate studies in chemistry or related fields. It does not meet the criteria for an American Chemical Society approved degree in chemistry.

The minimum number of semester credit hours required for this degree, including the Core Curriculum requirements, is 124. All major and support work courses must be completed with a grade of "C" or better.

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Chemistry must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MAT 1214 Calculus I <b>Science</b> (6 semester credit hours) Any 6 semester credit hours from the following list will satisfy this core requirement: CHE 1103 General Chemistry I CHE 1303 General Chemistry II PHY 1603, 1611 General Physics I and Laboratory PHY 1623, 1631 General Physics II and Laboratory PHY 1904, 1911 Technical Physics I and Laboratory PHY 1924, 1931 Technical Physics II and Laboratory
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

<b>Domain III: Literature and the Arts</b>	<p><b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Degree Requirements

A. 40 semester credit hours of required courses in chemistry:

CHE	1103	General Chemistry I
CHE	1303	General Chemistry II
CHE	1312	General Chemistry II Laboratory
CHE	2204	Organic Chemistry I
CHE	2242	Organic Chemistry I Laboratory
CHE	2303	Organic Chemistry II
CHE	2342	Organic Chemistry II Laboratory
CHE	3103	Analytical Chemistry
CHE	3204	Thermodynamics
CHE	3212	Physical Chemistry Laboratory
CHE	3224	Kinetics and Quantum Theory
CHE	3264	Descriptive Inorganic Chemistry
CHE	4103	Instrumental Analysis
CHE	4971	Proseminar

B. 12 additional semester credit hours of approved upper-division chemistry electives; no more than 3 semester credit hours may be from CHE 4913 Independent Study or CHE 4923 Special Project in Chemistry

C. 27 to 29 semester credit hours of support work in science and mathematics:

1. 18 to 20 semester credit hours of required courses:

MAT	1214	Calculus I
MAT	1223	Calculus II

Either

PHY	1603, 1611	General Physics I and Laboratory
PHY	1623, 1631	General Physics II and Laboratory
		or
PHY	1904, 1911	Technical Physics I and Laboratory
PHY	1924, 1931	Technical Physics II and Laboratory

CS	1033	Microcomputer Applications
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2. 9 additional semester credit hours of approved upper-division electives from the College of Sciences; up to 6 semester credit hours may be outside the college (9 hours for students seeking teacher certification) with approval of the advisor.

D. 12 semester credit hours of electives

## Minor in Chemistry

The purpose of this program is to permit students majoring in other areas to obtain a solid, broad-based knowledge of chemistry. The program is applicable to those students in other areas of science and in preprofessional programs. All coursework for the Minor in Chemistry must be completed with a grade of "C" or better.

23 semester credit hours are required for this minor:

CHE	1303	General Chemistry II
CHE	1312	General Chemistry II Laboratory
CHE	2204	Organic Chemistry I
CHE	2242	Organic Chemistry I Laboratory
CHE	2303	Organic Chemistry II
CHE	2342	Organic Chemistry II Laboratory
CHE	3103	Analytical Chemistry
CHE	3264	Descriptive Inorganic Chemistry

To declare a Minor in Chemistry, obtain advice, or seek approval of substitutions for course requirements, students should consult the undergraduate advisor in the College of Sciences Undergraduate Advising Center.

## COURSE DESCRIPTIONS CHEMISTRY (CHE)

### 1003 Chemistry for Allied Health Sciences

(3-0) 3 hours credit.

Introduction to atomic structure, chemical bonding, stoichiometry, states of matter, inorganic chemical reactions, and acids and bases. For majors in occupational therapy, prenursing, and dental hygiene. May not be applied to a major in chemistry, biology, or clinical laboratory sciences. Concurrent enrollment in CHE 1011 is recommended. [TCCN: CHEM 1305.]

### 1011 Chemistry Laboratory for Allied Health Sciences

(1-4) 1 hour credit. Prerequisite: Completion of or concurrent enrollment in CHE 1003.

Introduction to chemical laboratory techniques. For majors in occupational therapy, prenursing, and dental hygiene. May not be applied to a major in chemistry, biology, or clinical laboratory sciences. [TCCN: CHEM 1105.]

### 1053 Chemistry of Ordinary Things

(3-0) 3 hours credit.

An introduction to the fundamental concepts of chemistry and the study of the chemistry of life and the everyday world. For nonscience majors. May not be applied to a major in the natural sciences, engineering, or allied health sciences.

### 1073 Basic Chemistry

(3-0) 3 hours credit.

A one-semester preparatory course covering some basic concepts of inorganic chemistry, atomic-molecular structure, and related mathematics. May not be applied to a B.S. or B.A. in Chemistry. May apply toward the Level I Core Curriculum requirement in science.

### 1103 General Chemistry I

(3-0) 3 hours credit. Prerequisites: Passing grade on Chemistry Placement Examination or grade of "C" or better in CHE 1073, and completion of, or concurrent enrollment in, MTC 1073.

An introduction to descriptive inorganic chemistry and atomic-molecular structure, including such fundamental concepts as the periodic system of elements, valency, chemical bonding, reactions and reaction mechanisms, stoichiometry, equilibria, acids and bases, thermochemistry, molecular-kinetic theory, and states of matter. Concurrent enrollment in CHE 1122 is recommended. May apply toward the Level II Core Curriculum requirement in science. [TCCN: CHEM 1311.]

**1122 General Chemistry I Laboratory**

(1-5) 2 hours credit. Prerequisite: Completion of or concurrent enrollment in CHE 1103.

An introduction to chemical problem solving and the basic operations of the chemical laboratory, and a survey of inorganic chemical reactions. This course consists of problem sessions, lecture-demonstrations, and/or laboratory experience.

**1203 Elementary Organic and Biochemistry**

(3-0) 3 hours credit. Prerequisite: CHE 1003.

A survey of the structures and reactions of some important functional groups of organic chemistry, and the relationship of these functional groups to the chemistry of lipids, carbohydrates, nucleic acids, and proteins. May not be applied to a major in chemistry. Concurrent enrollment in CHE 1211 is recommended. [TCCN: CHEM 1307.]

**1211 Organic and Biochemistry Laboratory**

(1-4) 1 hour credit. Prerequisite: Completion of or concurrent enrollment in CHE 1203.

Laboratory examination of the properties of some simple organic and biological chemicals; topics include solubility, crystallization, organic reactions, titration, enzyme action, sugars, and vitamins. May not be applied to a major in chemistry. [TCCN: CHEM 1107.]

**1303 General Chemistry II**

(3-0) 3 hours credit. Prerequisite: At least a "C" in CHE 1103 or the equivalent.

A continuation of CHE 1103. Elementary inorganic and physical chemistry; topics include solutions, electrolytes, oxidation-reduction reactions, reaction trends, coordination chemistry, basic thermodynamics, chemical kinetics, and electrochemistry. Primarily for science majors. May apply toward Level II Core Curriculum requirement in science. [TCCN: CHEM 1312.]

**1312 General Chemistry II Laboratory**

(1-5) 2 hours credit. Prerequisite: Completion of or concurrent enrollment in CHE 1303.

Techniques of qualitative and quantitative chemical analysis, illustrated primarily via inorganic chemical systems and their reactions. Laboratory to accompany CHE 1303. [TCCN: CHEM 1112.]

**2204 Organic Chemistry I**

(4-0) 4 hours credit. Prerequisites: CHE 1303 and CHE 1312.

An elementary study of structure, stereochemistry, reactions, and reaction mechanisms associated with organic compounds. Primarily for chemistry, premed, and science majors. Discussion and practice of problems amplifying and clarifying the course. (Formerly CHE 2203. Credit hours cannot be earned from both CHE 2204 and CHE 2203.) [TCCN: CHEM 2323.]

**2242 Organic Chemistry I Laboratory**

(1-5) 2 hours credit. Prerequisite: Completion of or concurrent enrollment in CHE 2204.

The first of two semesters of organic chemistry laboratory. Qualitative analysis and determination of the physical constants of organic compounds. Separation, identification, and elementary synthesis of organic compounds. Laboratory techniques - crystallization, distillation, chromatographic and spectroscopic techniques (IR, NMR, MS) - are emphasized. [TCCN: CHEM 2223.]

**2303 Organic Chemistry II**

(3-0) 3 hours credit. Prerequisites: CHE 2204 and completion of or concurrent enrollment in CHE 2242.

Continuing study of fundamentals of structure, reactions, and reaction mechanisms of phosphorus and sulphur; polyfunctional organic compounds. A continuation of CHE 2204. [TCCN: CHEM 2325.]

**2342 Organic Chemistry II Laboratory**

(1-5) 2 hours credit. Prerequisites: CHE 2242 and completion of or concurrent enrollment in CHE 2303.

Quantitative and continuing qualitative study of organic reactions and molecular structure through functional group interactions and spectroscopic techniques. Simple and multistep syntheses of organic compounds. A continuation of CHE 2242. [TCCN: CHEM 2225.]

- 3103 Analytical Chemistry**  
(2-5) 3 hours credit. Prerequisites: CHE 1303, CHE 1312, and CS 1033.  
Topics in quantitative analysis including wet chemical and basic instrumental analysis; gravimetric, volumetric, electrochemical and spectrophotometric determinations combined with error analysis; fundamentals of chemical separations; applications of stoichiometry and chemical equilibria to design efficient analytical protocols.
- 3204 Thermodynamics**  
(4-0) 4 hours credit. Prerequisites: CHE 1303, CHE 1312, MAT 1223, CS 1033, PHY 1924 and PHY 1931; completion of two semesters of organic chemistry is strongly recommended.  
Gases; First, Second, and Third Law of Thermodynamics – concepts, formalisms, and applications; phase equilibria, mixtures, phase rule, chemical reactions; and the underlying mathematical concepts necessary for the interpretation of these concepts and the application of computer software tools to these topics.
- 3212 Physical Chemistry Laboratory**  
(1-5) 2 hours credit. Prerequisites: CHE 3103 and CHE 3224.  
Experimental study of thermodynamics, reaction kinetics, properties of solutions, changes of state and the underlying physical laws, with the statistical treatment of experimental errors and error propagation, and basic electronics.
- 3224 Kinetics and Quantum Theory**  
(4-0) 4 hours credit. Prerequisite: CHE 3204.  
Kinetic theory, principles, complex reactions, molecular dynamics and transport; quantum theory principles and application; statistical thermodynamics principles and applications; and the underlying mathematical concepts necessary for the interpretation of these concepts and the application of computer software tools to these topics. A continuation of CHE 3204.
- 3264 Descriptive Inorganic Chemistry**  
(3-3) 4 hours credit. Prerequisites: CHE 1303, CHE 1312, and CHE 2204.  
The basic principles of inorganic chemistry applied to the properties, reactions, and periodicity of inorganic elements and compounds. Includes the synthesis and characterization of inorganic compounds and the use of specialized laboratory techniques.
- 4103 Instrumental Analysis**  
(2-5) 3 hours credit. Prerequisites: CHE 2342, CHE 3103, CHE 3212, and CHE 3224.  
The physical and chemical principles of modern instrumental techniques used for chemical analysis. Topics include emission, absorption, magnetic resonance, and FTIR spectroscopies, mass spectrometry, and chromatography. The use of spectrometric and chromatographic instrumentation in the separation, identification, and quantitation of compounds in chemical systems. (Formerly CHE 3243. Credit cannot be earned for both CHE 4103 and CHE 3243.)
- 4203 Introduction to Polymer Chemistry**  
(3-0) 3 hours credit. Prerequisite: CHE 2303, CHE 3224, or consent of instructor.  
Fundamental concepts of polymer chemistry, including mechanisms for synthesis, kinetics, and copolymerization; molecular weight, stereoisomerism, morphology, solubility, and thermal transitions; visco- and rubber elasticity; and the molecular basis for physical properties.
- 4243 Organic Chemistry III**  
(3-0) 3 hours credit. Prerequisites: CHE 2303, CHE 2342, and CHE 3204; or consent of instructor.  
Advanced mechanistic and/or synthetic aspects of organic reactions; additional topics such as molecular rearrangements and organic molecular orbital theory and its application to pericyclic reactions.
- 4253 Spectroscopy**  
(3-0) 3 hours credit. Prerequisites: CHE 2303, CHE 3224, and CHE 3264.  
Light and energy, electronic configuration and orbitals of atoms, molecular orbital theory, symmetry, point groups and character tables, electronic spectroscopy, vibrational spectroscopy, and other related topics; and the underlying mathematical concepts necessary for the interpretation of these concepts, and the application of computer software tools to these topics.

**4263 Inorganic Chemistry**

(3-0) 3 hours credit. Prerequisites: CHE 3204 and CHE 3264.

A study of the structure, bonding, and properties of inorganic compounds; acid-base theory, crystalline state, coordination chemistry, and other advanced topics.

**4363 NMR Spectroscopy**

(3-0) 3 hours credit. Prerequisites: PHY 1924, completion of or concurrent enrollment in CHE 3224, or consent of instructor.

A lecture course with demonstrations dealing with the basic theory and applications of one- and two-dimensional nuclear magnetic resonance spectroscopy, including the interpretation of spectra. The parameters and pulse sequences for various types of NMR experiments and explanations of how molecular structural information can be obtained will be presented.

**4383 Introduction to Mass Spectrometry**

(2-3) 3 hours credit. Prerequisite: CHE 3224 or consent of instructor.

The basic principles of interpreting mass spectra and how they are produced. The effect the method of ion production has on the observed mass spectra, and the theory and operation of various types of mass spectrometers will be covered. The basic theory of ion-molecule reactions and principles and practice of biological mass spectrometry and other advanced topics will be presented.

**4403 Chemistry of Heterocyclic Compounds**

(3-0) 3 hours credit. Prerequisite: CHE 2303 or consent of instructor.

The chemistry of nitrogen, oxygen, and sulfur heterocycles. Five- and six-membered ring systems with one or more heteroatoms. Applications in the field of synthetic drugs.

**4503 Biochemistry**

(3-0) 3 hours credit. Prerequisite: CHE 2303.

Structure and function relationships of biologically important molecules; energy production, storage and utilization; amino acids, nucleic acids, peptides and proteins; intermediary metabolism; lipids and membranes. (Credit cannot be earned from both CHE 4503 and BIO 3513. BIO 3513 cannot be taken as a chemistry elective.)

**4603 Synthesis and Biosynthesis of Natural Products**

(2-3) 3 hours credit. Prerequisites: CHE 4243; BIO 3513 is recommended or consent of instructor.

Comparison of chemical and biochemical formations and transformations for several classes of naturally occurring compounds such as steroids, terpenoids, alkaloids, and other natural products of chemical or biological importance.

**4911-3 Independent Study**

1 to 3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Department Chair, and Dean of the College in which this course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4923 Special Project in Chemistry**

3 hours credit. Prerequisite: Consent of Department Chair (form available in department office).

A special laboratory research or library readings project under the direction of a faculty member that results in a report. Limited to science majors in their final year of undergraduate study.

**4953 Special Studies in Chemistry**

(3-0) 3 hours credit. Prerequisites: Upper-division standing and consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when the topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4971 Proseminar**

(0-3) 1 hour credit. Prerequisites: CHE 2303 and CHE 3204.

Oral reports on current publications in chemistry and chemical technology using important chemical reference materials and periodicals. May be repeated for credit, but only 2 semester credit hours may be applied toward the degree.

**4993 Honors Research**

3 hours credit. Prerequisites: Enrollment limited to candidates for college honors during their last two semesters; approval by the College Honors Committee.

Supervised research and preparation of an honors thesis. May be repeated only once with approval.

## DEPARTMENT OF COMPUTER SCIENCE

The Department of Computer Science offers a Bachelor of Science degree in Computer Science with a strong technical emphasis on modern computing and systems. The degree program offers students the opportunity to prepare for careers in high-technology companies, business, government, and teaching, and to prepare for advanced graduate study. The department also offers a Minor in Computer Science.

### Bachelor of Science Degree in Computer Science

The Bachelor of Science degree in Computer Science requires a minimum of 126 semester credit hours, including the Core Curriculum requirements.

All majors in computer science are required to complete all required and elective computer science courses with a grade of “C” or better.

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Science degree in Computer Science must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MAT 1214 Calculus I <b>Science</b> (6 semester credit hours) PHY 1904 Technical Physics I PHY 1924 Technical Physics II
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

<b>Domain III: Literature and the Arts</b>	<p><b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

### Degree Requirements

- A. 72 semester credit hours of required courses (this also satisfies the 9 hours of Core Curriculum requirements for Domain I):
- |     |            |  |
|-----|------------|--|
| CS  | 1713, 1711 | Introduction to Computer Science and Recitation (The student who has no programming experience should take CS 1063 Introduction to Programming.) |
| CS  | 1723, 1721 | Data Structures and Recitation   |
| CS  | 2213, 2211 | Advanced Programming and Recitation  |
| CS  | 2413, 2411 | Systems Programming and Recitation   |
| CS  | 2513, 2511 | Computer Organization I and Recitation   |
| CS  | 2733, 2731 | Computer Organization II and Recitation  |
| CS  | 3233, 3231 | Discrete Mathematical Structures and Recitation  |
| CS  | 3343, 3341 | Analysis of Algorithms and Recitation  |
| CS  | 3723, 3721 | Programming Languages and Recitation   |
| CS  | 3733, 3731 | Operating Systems and Recitation   |
| CS  | 4753, 4751 | Computer Architecture and Recitation   |
| CS  | 4873       | Computer Networks  |
| MAT | 1214       | Calculus I (The student who is not prepared to begin MAT 1214 must take MAT 1093 Precalculus.)   |
| MAT | 1223       | Calculus II  |
| MAT | 2213       | Calculus III   |
| MAT | 2233       | Linear Algebra   |
| PHY | 1904       | Technical Physics I  |
| PHY | 1911       | Technical Physics I Laboratory   |
| PHY | 1924       | Technical Physics II   |
| STA | 3543       | Statistical and Experimental Design for Computer Science   |
- B. 18 semester credit hours of upper-division computer science courses (not including CS 3133 or CS 4103)
- C. 3 semester credit hours of free electives

### Minor in Computer Science

All students pursuing the Minor in Computer Science must complete 20 semester credit hours.

- A. 16 semester credit hours of required courses:

CS	1713, 1711	Introduction to Computer Science and Recitation
CS	1723, 1721	Data Structures and Recitation
CS	2213, 2211	Advanced Programming and Recitation
CS	2413, 2411	Systems Programming and Recitation

- B. 4 hours of sophomore or higher level CS core or approved upper-division CS electives.

To declare a Minor in Computer Science, obtain advice, or seek approval of substitutions for course requirements, students should consult the College of Sciences Undergraduate Advising Center.

## COURSE DESCRIPTIONS COMPUTER SCIENCE (CS)

### 1023 Cultural Implications of the Information Society

(3-0) 3 hours credit.

This course offers an examination of the modern information society and the influences of technological advances on society and culture. The emphasis is on information and its management from ethical, social, and legal perspectives. Students will make extensive use of the World Wide Web. [TCCN: COSC 1300.]

### 1033 Microcomputer Applications

(3-0) 3 hours credit.

Study of the uses of the computer and the organization and visualization of data. Topics will be selected from library searching, networking, e-mail, spreadsheets, databases, authoring packages, multimedia and hypertext applications, presentation graphics, and legal/ethical issues. May not be applied toward a major in computer science. (Formerly CS 2083. Credit cannot be earned for both CS 1033 and CS 2083.)

### 1063 Introduction to Computer Programming

(3-0) 3 hours credit. Prerequisite: MTC 1023 or the equivalent.

A course in computer programming for those who have never programmed a computer before, developing elementary programming skills using a modern computer language such as Java. [TCCN: COSC 1336.]

### 1073 Introductory Computer Programming for Scientific Applications

(3-0) 3 hours credit. Prerequisite: MTC 1023.

Introductory programming. Sorting and ranking, plotting, numerical taxonomy, solution of nonlinear equations, linear regression, and solution of linear systems. May not be applied toward a major in computer science.

### 1711 Introduction to Computer Science Recitation

(1-0) 1 hour credit. Prerequisite: MAT 1093. Concurrent enrollment in CS 1713 is required.

Recitation to accompany CS 1713. (Formerly CS 1714. Credit cannot be earned for both CS 1711 and CS 1714.) [TCCN: COSC 1437.]

### 1713 Introduction to Computer Science

(3-0) 3 hours credit. Prerequisites: MAT 1093, and either CS 1063 or previous programming experience. Concurrent enrollment in CS 1711 is required.

Introduction to basic concepts of computer science. Data representation, problem solving methods, algorithm development and implementation. Basic concepts of object-oriented design are integrated throughout the course. (Formerly CS 1714. Credit cannot be earned for both CS 1713 and CS 1714.) [TCCN: COSC 1437.]

### 1721 Data Structures Recitation

(1-0) 1 hour credit. Prerequisites: CS 1711, CS 1713, and MAT 1214. Concurrent enrollment in CS 1723 is required.

Recitation to accompany CS 1723. (Formerly CS 1724. Credit cannot be earned for both CS 1721 and CS 1724.) [TCCN: COSC 2436.]

### 1723 Data Structures

(3-0) 3 hours credit. Prerequisites: CS 1711, CS 1713, and MAT 1214. Concurrent enrollment in CS 1721 is required.

Abstract data structures (stacks, queues, lists, trees), recursion, sorting, and searching. Object-oriented design and implementation of data structures. (Formerly CS 1724. Credit cannot be earned for both CS 1723 and CS 1724.) [TCCN: COSC 2436.]

### 2073 Computer Programming with Engineering Applications

(3-0) 3 hours credit. Prerequisites: MAT 1214 and completion of or concurrent enrollment in MAT 1223.

Algorithmic approaches to problem solving and computer program design for engineers. Engineering and mathematically-oriented problem sets will be emphasized, including nonnumeric applications. Searching, sorting, linked lists, and data typing will be introduced. May not be applied toward a major in computer science.

- 2211 Advanced Programming Recitation**  
(1-0) 1 hour credit. Prerequisites: CS 1721 and CS 1723. Concurrent enrollment in CS 2213 is required. Recitation to accompany CS 2213.
- 2213 Advanced Programming**  
(3-0) 3 hours credit. Prerequisites: CS 1721 and CS 1723. Concurrent enrollment in CS 2211 is required. Further application of programming techniques in a specific programming language. Continuation of data structures (graphs, B-trees, matrices), and file and memory management.
- 2411 Systems Programming Recitation**  
(1-0) 1 hour credit. Prerequisites: CS 2211 and CS 2213. Concurrent enrollment in CS 2413 is required. Recitation to accompany CS 2413.
- 2413 Systems Programming**  
(3-0) 3 hours credit. Prerequisites: CS 2211 and CS 2213. Concurrent enrollment in CS 2411 is required. A study of systems-level programming in a specific system (at present, Unix). Focus on concepts and tools to support the construction of systems programs.
- 2511 Computer Organization I Recitation**  
(1-0) 1 hour credit. Prerequisites: CS 1711 and CS 1713. Concurrent enrollment in CS 2513 is required. Recitation to accompany CS 2513. (Formerly CS 2514. Credit cannot be earned for both CS 2511 and CS 2514.)
- 2513 Computer Organization I**  
(3-0) 3 hours credit. Prerequisites: CS 1711 and CS 1713. Concurrent enrollment in CS 2511 is required. Introduction to digital logic design. Combinational and sequential circuits. Designing with MSI components. State machine design. (Formerly CS 2514. Credit cannot be earned for both CS 2513 and CS 2514.)
- 2731 Computer Organization II Recitation**  
(1-0) 1 hour credit. Prerequisites: CS 1721, CS 1723, CS 2511, and CS 2513. Concurrent enrollment in CS 2733 is required. Recitation to accompany CS 2733. (Formerly CS 2734. Credit cannot be earned for both CS 2731 and CS 2734.)
- 2733 Computer Organization II**  
(3-0) 3 hours credit. Prerequisites: CS 1721, CS 1723, CS 2511, and CS 2513. Concurrent enrollment in CS 2731 is required. Assembly language programming and computer organization. (Formerly CS 2734. Credit cannot be earned for both CS 2733 and CS 2734.)
- 3133 Computers and Society**  
(3-0) 3 hours credit. Prerequisite: Consent of instructor or one of the following courses: CS 1033, CS 1063, CS 1073, CS 1713, or CS 2073. Examination of some of the major issues faced by the use of computers in society, including computers and the law, computers in business, computers in education, computers in science and engineering, and electronic fund-transfer and communications.
- 3231 Discrete Mathematical Structures Recitation**  
(1-0) 1 hour credit. Prerequisites: CS 1721, CS 1723, and MAT 1223. Concurrent enrollment in CS 3233 is required. Recitation to accompany CS 3233.
- 3233 Discrete Mathematical Structures**  
(3-0) 3 hours credit. Prerequisites: CS 1721, CS 1723, and MAT 1223. Concurrent enrollment in CS 3231 is required. Survey and development of theoretical tools suitable for describing algorithmic applications. Propositional and predicate calculus, induction, proofs, set theory, and finite state automata.

**3323 Topics in Programming Languages**

(3-0) 3 hours credit. Prerequisites: CS 2411 and CS 2413.

Study of two or three languages important to the computer science curriculum. (Credit cannot be earned for both CS 3323 and CS 3321.)

**3341 Analysis of Algorithms Recitation**

(1-0) 1 hour credit. Prerequisites: CS 2411, CS 2413, CS 3231, CS 3233, and MAT 2213. Concurrent enrollment in CS 3343 is required.

Recitation to accompany CS 3343.

**3343 Analysis of Algorithms**

(3-0) 3 hours credit. Prerequisites: CS 2411, CS 2413, CS 3231, CS 3233, and MAT 2213. Concurrent enrollment in CS 3341 is required.

Analysis of the performance of algorithms; discussion of programming techniques and data structures used in the writing of effective algorithms. (Formerly CS 4323. Credit cannot be earned for both CS 3343 and CS 4323.)

**3393 Numerical Linear Algebra**

(3-0) 3 hours credit. Prerequisites: MAT 2233, CS 2211, and CS 2213.

A study of the numerical techniques involved in matrix operations, systems of linear equations, linear least squares, eigenvalue and singular value problems, with an emphasis on practical implementations using existing mathematical software.

**3413 Data Communications**

(3-0) 3 hours credit. Prerequisites: CS 2731 and CS 2733 or consent of instructor.

Concepts, principles, and terminology concerning the standards, equipment, interfaces, protocols, architectures, transmission alternatives, and regulatory issues involved in the design and use of data communications systems.

**3721 Programming Languages Recitation**

(1-0) 1 hour credit. Prerequisites: CS 2211, CS 2213, CS 3231, and CS 3233. Concurrent enrollment in CS 3723 is required.

Recitation to accompany CS 3723.

**3723 Programming Languages**

(3-0) 3 hours credit. Prerequisites: CS 2211, CS 2213, CS 3231, and CS 3233. Concurrent enrollment in CS 3721 is required.

An introduction to the organization of high-level programming languages, including data types, control structures, data flow, and run time environments. Use of formal syntax descriptions. The implications of interpretation versus compilation. Activation records and dynamic storage in block-structured languages.

**3731 Operating Systems Recitation**

(1-0) 1 hour credit. Prerequisites: CS 2411, CS 2413, CS 2731, CS 2733, CS 3231, and CS 3233. Concurrent enrollment in CS 3733 is required.

Recitation to accompany CS 3733.

**3733 Operating Systems**

(3-0) 3 hours credit. Prerequisites: CS 2411, CS 2413, CS 2731, CS 2733, CS 3231, and CS 3233. Concurrent enrollment in CS 3731 is required.

An introduction to the functions and major techniques of a modern multiprogramming operating system. Includes exposure to the fundamentals of processor management, process synchronization, memory management, and peripheral management.

**3743 Introduction to Database Systems**

(3-0) 3 hours credit. Prerequisites: CS 2411, CS 2413, CS 3231, and CS 3233.

Study of fundamentals of database systems. Topics include basic concepts, various data models, database design, storage systems, indexing and hashing, database application design and implementation, and commercially available database systems.

- 3773 Software Engineering**  
(3-0) 3 hours credit. Prerequisites: CS 3341 and CS 3343.  
Software development (analysis, specifications, design, implementation, and testing). Design methodologies and programming standards. Development project in small groups, including acceptance test.
- 3793 Introduction to Artificial Intelligence**  
(3-0) 3 hours credit. Prerequisites: CS 3341 and CS 3343.  
Discussion of theorem-proving by machine; includes computational linguistics, psychological modeling, and computer games.
- 4103 Ethical and Social Issues in Computer Science**  
(3-0) 3 hours credit. Prerequisites: CS 3731 and CS 3733 or consent of instructor.  
An introduction to formal ethics and its application to issues arising from the modern computer revolution. Topics include ethical problems related to specialized areas of computer science, such as large databases, networks, artificial intelligence, and computer security. Legal issues are also covered.
- 4313 Automata, Computability, and Formal Languages**  
(3-0) 3 hours credit. Prerequisites: CS 3341 and CS 3343.  
Discussion of abstract machines (finite state automata, pushdown automata, and Turing machines), formal grammars (regular, context-free, and type 0), and the relationship among them.
- 4353 Unix and Network Security**  
(3-0) 3 hours credit. Prerequisites: CS 3731 and CS 3733.  
A technical survey of the fundamentals of computer and information security. Issues include cryptography, authentication, attack techniques at both the OS and network level, defense techniques, intrusion detection, scan techniques and detection, forensics, denial of service techniques and defenses, libpcap and libnet programming.
- 4363 Cryptography**  
(3-0) 3 hours credit. Prerequisites: CS 3341, CS 3343, CS 3731, and CS 3733.  
A course in pure and applied cryptography, with emphasis on theory. Topics may include conventional and public-key cryptosystems, signatures, pseudo-random sequences, hash functions, key management, and threshold schemes.
- 4383 Computer Graphics**  
(3-0) 3 hours credit. Prerequisites: CS 3341, CS 3343, and MAT 2233.  
An introduction to two- and three-dimensional generative computer graphics. Display devices, data structures, mathematical transformations, and algorithms used in picture generation, manipulation, and display.
- 4393 Topics in User Interfaces**  
(3-0) 3 hours credit. Prerequisites: CS 3731 and CS 3733.  
Study of advanced user interface issues. Topics will be selected from user interface design, human factors, window systems and toolkits, GUI programming models, and input devices, psychological aspects of human-computer interaction, and the psychology of computer users.
- 4633 Simulation**  
(3-0) 3 hours credit. Prerequisites: CS 3341, CS 3343 and STA 3543.  
Design, execution, and analysis of simulation models, discrete event simulation techniques, input and output analysis, random numbers, and simulation tools and languages.
- 4713 Compiler Writing**  
(3-0) 3 hours credit. Prerequisites: CS 2731, CS 2733, CS 3341, and CS 3343.  
An introduction to implementation of translators. Topics include formal grammars, scanners, parsing techniques, syntax-directed translation, symbol table management, code generation, and code optimization.

**4751 Computer Architecture Recitation**

(1-0) 1 hour credit. Prerequisites: CS 2731, CS 2733, CS 3731, and CS 3733. Concurrent enrollment in CS 4753 is required.

Recitation to accompany CS 4753.

**4753 Computer Architecture**

(3-0) 3 hours credit. Prerequisites: CS 2731, CS 2733, CS 3731, and CS 3733. Concurrent enrollment in CS 4751 is required.

Instruction set architecture, datapath and control unit design, advanced computer arithmetic, pipelining, memory hierarchy and I/O subsystem, performance issues.

**4763 Multimedia Systems**

(3-0) 3 hours credit. Prerequisites: CS 3731 and CS 3733.

Multimedia hardware capabilities. Sound and video generation and editing. Multimedia applications development and toolkits. Analysis of operational characteristics of multimedia systems.

**4773 Object-Oriented Systems**

(3-0) 3 hours credit. Prerequisite: CS 3773.

Study of object-oriented concepts and techniques, encapsulation, inheritance mechanisms, polymorphism, and programming in one or more object-oriented languages.

**4793 Introduction to Artificial Neural Networks**

(3-0) 3 hours credit. Prerequisites: CS 3341 and CS 3343.

Analysis of biological nervous systems, supervised and unsupervised training algorithms, Perceptrons and threshold logic-based systems, associative memories, nonlinear regression, and backpropagation learning methods.

**4823 Introduction to Parallel Programming**

(3-0) 3 hours credit. Prerequisites: CS 3341, CS 3343, CS 3731, and CS 3733.

Parallel programming concepts (partitioning, synchronization and communication, programming models-shared memory based and message based), programming tools and languages, performance issues.

**4873 Computer Networks**

(3-0) 3 hours credit. Prerequisites: CS 3731, CS 3733, and STA 3543.

Discussion of standard network layers, including issues of topology, error detection and recovery, congestion control, and hardware interfacing.

**4913 Independent Study**

3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Department Chair and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4933 Internship in Computer Science**

3 hours credit. Prerequisites: Junior or senior standing, an overall 2.5 grade point average, and permission in writing from the instructor, the Department Chair, and the Dean of the College of Sciences.

The opportunity for a semester-long work experience in a private business or public agency in a computer science-related position. No more than 3 semester credit hours of CS 4933, and no more than a total of 6 semester credit hours of CS 4933 and independent study courses may count toward the Bachelor of Science degree in Computer Science. The grade report for this course is either "CR" (satisfactory participation in the internship) or "NC" (unsatisfactory participation in the internship).

**4953 Special Studies in Computer Science**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4993 Honors Research**

3 hours credit. Prerequisite: Enrollment limited to candidates for College Honors during their last two semesters; approval by the College Honors Committee.

Supervised research and preparation of an honors thesis. May be repeated one time with approval.

## DEPARTMENT OF EARTH AND ENVIRONMENTAL SCIENCE

The degree programs offered by the Department of Earth and Environmental Science reflect its policy of offering the opportunity for a comprehensive education of the highest quality, individualized to the needs and interests of the student. Completion of a basic science curriculum allows students to apply for entry into one of several highly specialized areas in geology or environmental science. Students who have majored in either of these degree programs are eligible to apply for positions in industry and government as well as for entry into professional and graduate schools. The Bachelor of Science degree in multidisciplinary science gives students broad training in the sciences and is suitable as preparation to teach science at the secondary school level. Students seeking teacher certification should contact the College of Education and Human Development Teacher Advising and Certification Center early in their studies for information about certificate requirements and admission procedures. Undergraduates seeking elementary teacher certification must complete the interdisciplinary studies degree. The department also offers a Bachelor of Arts (B.A.) and Minor in Geology.

### Bachelor of Science Degree in Multidisciplinary Science

The Bachelor of Science degree in Multidisciplinary Science is primarily for students preparing to teach science at the secondary school level. Students seeking teacher certification should also refer to the requirements listed in the College of Education and Human Development portion of the catalog.

The minimum number of semester credit hours required for this degree, including the Core Curriculum requirements, is 126 to 137.

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Science degree in Multidisciplinary Science must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both major requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MAT 1093 Precalculus <b>Science</b> (6 semester credit hours) The core curriculum science requirement is automatically fulfilled in obtaining a B.S. degree in Multidisciplinary Science.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Economics</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours at the sophomore level or above listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Degree Requirements

#### A. 48 or 50 semester credit hours of required science courses:

AST	1013, 1031	Introduction to Astronomy and Laboratory
BIO	1113, 1122	Biology I and Laboratory Investigations in Biology
BIO	2123	Comparative Anatomy of Vertebrates
CHE	1103	General Chemistry I
CHE	1303, 1312	General Chemistry II and Laboratory
GEO	1103, 1111	Introduction to Earth Systems and Laboratory
GEO	1123, 1131	Earth History and Laboratory
GRG	3713	Weather and Climate
ES	2013	Introduction to Environmental Systems I or
ES	2023	Introduction to Environmental Systems II
ES	4043	Introduction to Geographic Information Systems (GIS)
ES or GEO	4193	Field-based Inquiry
Either		
PHY	1603, 1611	General Physics I and Laboratory
PHY	1623, 1631	General Physics II and Laboratory or
*PHY	1904, 1911	Technical Physics I and Laboratory
*PHY	1924, 1931	Technical Physics II and Laboratory

\* Technical Physics is the required option for concentration in chemistry or physics. Note that the prerequisites for technical physics are Calculus I and II (MAT 1214 and MAT 1223). These can be included among the elective courses in sciences and mathematics.

- B. 21 semester credit hours of approved electives in geology, biology, chemistry, physics, environmental science, and/or mathematics; 12 of these hours must be at the upper-division level.

Areas of specialization are available in any of these fields by taking at least 15 upper-division semester credit hours in a single field. Students seeking secondary education certification should refer to the current Texas state standards for their chosen field to help choose the best combination of courses. All students should seek approval from the College of Sciences Undergraduate Advising Center on a course-by-course basis.

- C. 21 to 30 semester credit hours of electives, as set forth below:
- For students seeking the degree only (without teacher certification), at least 21 semester credit hours of electives are required, including a sufficient number of upper-division hours to meet UTSA minimum of 39 upper-division hours.
  - For students seeking the degree with teacher certification, these electives must include:

IDS 2083 Technology for Liberal Arts and Social Sciences

Either

COM 1043 Introduction to Communication

or

COM 2123 Oral Interpretation

and 24 semester credit hours of professional education courses.

## Bachelor of Science Degree in Geology

The Bachelor of Science degree in Geology provides opportunities to prepare for careers in petroleum, mining, water resources, environmental management, governmental agencies, engineering geology, geochemistry, geophysics, and natural resources.

The minimum number of semester credit hours required for this degree, including the Core Curriculum requirements, is 124 to 127.

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Science degree in Geology must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) The core curriculum mathematics requirement is automatically fulfilled in obtaining a B.S. degree in Geology. <b>Science</b> (6 semester credit hours) The core curriculum science requirement is automatically fulfilled in obtaining a B.S. degree in Geology.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Economics</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Degree Requirements

A. 52 semester credit hours in geology completed with a grade of “C” or better:

1. 43 semester credit hours of required courses:

GEO 1103, 1111	Introduction to Earth Systems and Laboratory
GEO 1123, 1131	Earth History and Laboratory
GEO 2003, 2011	Mineralogy and Laboratory
GEO 2023, 2031	Optical Mineralogy and Laboratory
GEO 3043, 3052	Petrology and Laboratory
GEO 3063, 3071	Paleontology and Laboratory
GEO 3103, 3111	Structural Geology and Laboratory
GEO 3123, 3131	Sedimentary Geology and Laboratory
GEO 3374	Geochemistry
GEO 4946	Field Geology

2. 9 additional semester credit hours selected from the following (a maximum of 3 semester credit hours from either GEO 4911-3 or 4951-3 may apply to this requirement):

GEO 3083, 3091	Stratigraphy and Laboratory
GEO 3113	Geologic Field Investigations
GEO 3143, 3151	Economic Geology and Laboratory
GEO 3163	Oceanography
GEO 3383	General Geophysics
GEO 4013	Volcanology
GEO 4023	Engineering Geology
GEO 4063	Principles of Environmental Geology
GEO 4113, 4121	Geomorphology and Laboratory
GEO 4623	Ground-Water Hydrology
GEO 4803	X-Ray Crystallography

GEO	4911-3	Independent Study
GEO	4951-3	Special Studies in Geology and Environmental Science
GEO	4993	Honors Research

B. 27 to 30 required semester credit hours in the College of Sciences:

CHE	1103	General Chemistry I
CHE	1303	General Chemistry II
CS	1063	Introduction to Computer Programming
		or
CS	1073	Introductory Computer Programming for Scientific Applications
		or
CS	1713, 1711	Introduction to Computer Science and Recitation
ES	4043	Introduction to Geographic Information Systems (GIS)
MAT	1214	Calculus I
MAT	1223	Calculus II
Either		
PHY	1904, 1911	Technical Physics I and Laboratory
PHY	1924, 1931	Technical Physics II and Laboratory
		or
PHY	1603, 1611	General Physics I and Laboratory
PHY	1623, 1631	General Physics II and Laboratory

C. 12 semester credit hours of electives.

### Bachelor of Arts Degree in Geology

The Bachelor of Arts degree in Geology provides opportunities to prepare for careers in fields such as earth science education, law, insurance, financial services, and environmental management. It is not recommended for students planning to pursue careers as professional geologists or graduate studies in geology or related fields.

The minimum number of semester credit hours required for this degree, including the Core Curriculum requirements, is 120.

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Geology must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II

<b>Domain I: Mathematics and Science</b>	<p><b>Mathematics</b> (3 semester credit hours) The core curriculum mathematics requirement is automatically fulfilled in obtaining a B.A. degree in Geology.</p> <p><b>Science</b> (6 semester credit hours) The core curriculum science requirement is automatically fulfilled in obtaining a B.A. degree in Geology.</p>
<b>Domain II: Society and Culture</b>	<p><b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Degree Requirements

#### A. 45 semester credit hours of geology:

##### 1. 33 semester credit hours of required courses:

ES	4043	Introduction to Geographic Information Systems (GIS)
GEO	1103, 1111	Introduction to Earth Systems and Laboratory
GEO	1123, 1131	Earth History and Laboratory
GEO	3063, 3071	Paleontology and Laboratory
GEO	3123, 3131	Sedimentary Geology and Laboratory
GEO	3163	Oceanography
GEO	3203, 3211	Rocks and Minerals and Laboratory
GEO	4063	Principles of Environmental Geology
GEO	4113, 4121	Geomorphology and Laboratory

##### 2. 12 additional semester credit hours selected from the following (a maximum of 3 semester credit hours from either GEO 4911-3 or GEO 4953 may apply to this requirement):

GEO	3083, 3091	Stratigraphy and Laboratory
GEO	3103, 3111	Structural Geology and Laboratory
GEO	3113	Geological Field Investigations
GEO	3143, 3151	Economic Geology and Laboratory
GEO	3323, 3331	Global Tectonism and Geologic Processes and Laboratory
GEO	3374	Geochemistry
GEO	4023	Engineering Geology

GEO	4623	Ground-Water Hydrology
GEO	4911-3	Independent Study
GEO	4951-3	Special Studies in Geology and Environmental Science
GEO	4993	Honors Research

B. 20 to 22 semester credit hours in the College of Sciences:

CHE	1103	General Chemistry I
CHE	1303	General Chemistry II
Either		
CHE	1312	General Chemistry II Laboratory
		or
GEO	3374	Geochemistry
MAT	1214	Calculus I
PHY	1603, 1611	General Physics I and Laboratory
PHY	1623, 1631	General Physics II and Laboratory

C. 22 semester credit hours of electives, three of which must be at the upper-division level to meet UTSA's minimum of 39 upper-division hours.

### Minor in Geology

All students pursuing the Minor in Geology must complete 22 semester credit hours.

A. 16 semester credit hours of required courses:

GEO	1103, 1111	Introduction to Earth Systems and Laboratory
GEO	1123, 1131	Earth History and Laboratory
GEO	3203, 3211	Rocks and Minerals and Laboratory
		or
GEO	2003, 2011	Mineralogy and Laboratory
GEO	3303, 3311	Introduction to Paleontology and Laboratory
		or
GEO	3063, 3071	Paleontology and Laboratory

B. 6 semester credit hours of approved upper-division geology electives.

To declare a Minor in Geology, obtain advice, or seek approval of substitutions for course requirements, students should consult the College of Sciences Undergraduate Advising Center.

## COURSE DESCRIPTIONS

### GEOLOGY

#### (GEO)

#### 1013 The Third Planet

(3-0) 3 hours credit.

Evolution of ideas concerning the earth's origin, structure, and age; social impact of recognizing the antiquity of the planet and humankind's brief presence; examination of how the distribution of planetary resources influenced the rise and clash of civilizations. May not be applied to a major in geology. May apply toward the Level I Core Curriculum requirement in science. [TCCN: GEOL 1301.]

- 1103 Introduction to Earth Systems**  
(3-0) 3 hours credit. Prerequisite: Successful completion of the following Core Curriculum requirement: MTC 1023 or above.  
The earth as a dynamic planet; relation of the earth's present processes to its resources, structure, and internal composition. Nature of minerals and rocks, the hydrosphere, tectonics, earthquakes, volcanism, and surface features of the earth. Concurrent enrollment in GEO 1111 recommended. May apply toward the Level II Core Curriculum requirement in science. [TCCN: GEOL 1303.]
- 1111 Introduction to Earth Systems Laboratory**  
(0-3) 1 hour credit. Prerequisite: Completion of or concurrent enrollment in GEO 1103.  
Relation of the earth's present processes to its resources, structure, and internal composition. Field trips and laboratory study of minerals, rocks, maps, and aerial and satellite photos. [TCCN: GEOL 1103.]
- 1123 Earth History**  
(3-0) 3 hours credit. Prerequisite: Successful completion of the following Core Curriculum requirement: MTC 1023 or above.  
Formation and evolution of the earth, its life forms, and the major features of its surface. Concurrent enrollment in GEO 1131 recommended. May apply toward the Level II Core Curriculum requirement in science. [TCCN: GEOL 1304.]
- 1131 Earth History Laboratory**  
(0-3) 1 hour credit. Prerequisite: Completion of or concurrent enrollment in GEO 1123.  
Laboratory study of fossils and rock sequences; interpretation of earth history. [TCCN: GEOL 1104.]
- 2003 Mineralogy**  
(3-0) 3 hours credit. Prerequisites: CHE 1103, GEO 1103, GEO 1111, MAT 1093, or consent of instructor; concurrent enrollment in GEO 2011.  
Crystallography, chemistry, physical properties, and origins of minerals. Field trips required.
- 2011 Mineralogy Laboratory**  
(0-3) 1 hour credit. Prerequisite: Concurrent enrollment in GEO 2003.  
Laboratory study of crystal models, crystals, and minerals. Field trips required.
- 2023 Optical Mineralogy**  
(3-0) 3 hours credit. Prerequisites: GEO 2003, GEO 2011, and concurrent enrollment in GEO 2031.  
Principles and methods of optical mineralogy. Optical properties of minerals and microscopic determination of opaque and nonopaque minerals.
- 2031 Optical Mineralogy Laboratory**  
(0-3) 1 hour credit. Prerequisites: GEO 2003, GEO 2011, and concurrent enrollment in GEO 2023.  
Use of the petrographic microscope for the identification of minerals.
- 3043 Petrology**  
(3-0) 3 hours credit. Prerequisites: GEO 2023, GEO 2031, and concurrent enrollment in GEO 3052.  
Description, classification, occurrence, and origin of igneous, metamorphic, and sedimentary rocks. Field trips required.
- 3052 Petrology Laboratory**  
(0-4) 2 hours credit. Prerequisites: GEO 2023, GEO 2031, and concurrent enrollment in GEO 3043.  
Laboratory study of rocks in hand specimen and thin section. Field trips required.
- 3063 Paleontology**  
(3-0) 3 hours credit. Prerequisites: GEO 1103, GEO 1111, GEO 1123, GEO 1131, or consent of instructor; concurrent enrollment in GEO 3071.  
Study of fossil animals and plants. Emphasis on invertebrate animals. Systematics, biostratigraphy, paleoecology, and evolution of fossil organisms. Field trips required.

- 3071 Paleontology Laboratory**  
(0-3) 1 hour credit. Prerequisites: GEO 1103, GEO 1111, GEO 1123, GEO 1131, and concurrent enrollment in GEO 3063.  
Study of fossil specimens, collections, and preparation techniques. Field trips required.
- 3083 Stratigraphy**  
(3-0) 3 hours credit. Prerequisites: GEO 3063, GEO 3071, GEO 3123, and GEO 3131, or consent of instructor; concurrent enrollment in GEO 3091.  
Application of stratigraphic principles to the interpretation of rocks formed at or near the surface of the earth. Field trips required.
- 3091 Stratigraphy Laboratory**  
(0-3) 1 hour credit. Prerequisite: Concurrent enrollment in GEO 3083.  
Laboratory study of stratigraphic methods using maps, measured sections, geologic and stratigraphic cross-sections, air photos, seismic data, modeling techniques, systems analysis, and various aspects of sequence stratigraphic analysis. Field trips required.
- 3103 Structural Geology**  
(3-0) 3 hours credit. Prerequisites: GEO 3043, GEO 3052, and concurrent enrollment in GEO 3111.  
Response of earth materials to natural stresses. Description and origin of geologic structures. Field trips required.
- 3111 Structural Geology Laboratory**  
(0-3) 1 hour credit. Prerequisite: Concurrent enrollment in GEO 3103.  
Laboratory study of geologic structures using maps, cross-sections, photographs, and descriptive geometric and stereographic methods. Field trips required.
- 3113 Geologic Field Investigations**  
(0-6) 3 hours credit. Prerequisite: Consent of instructor.  
Field studies of areas of geologic interest; e.g., structural geologic mapping, sedimentary facies analysis, hydrologic studies, etc. May be repeated for credit when topics vary, but not more than 6 semester credit hours may be applied to a B.A. or B.S. degree in Geology. Concurrent enrollment in GEO 4946 is not permitted. Field trips required.
- 3123 Sedimentary Geology**  
(3-0) 3 hours credit. Prerequisites: Completion of or concurrent enrollment in GEO 3043 and GEO 3052; concurrent enrollment in GEO 3131.  
Processes of erosion, transportation, and deposition that form bodies of sedimentary rock. Depositional systems and modeling are a significant area of study. Field trips required.
- 3131 Sedimentary Geology Laboratory**  
(0-3) 1 hour credit. Prerequisites: Completion of or concurrent enrollment in GEO 3043, GEO 3052, and GEO 3123.  
Laboratory studies of sedimentary processes and their products. Hand specimens, thin sections, sedimentary structures, and interpretation of depositional environments. Field trips required.
- 3143 Economic Geology**  
(3-0) 3 hours credit. Prerequisites: GEO 2003, GEO 2011, and concurrent enrollment in GEO 3151.  
Origin of metallic ore deposits and industrial minerals, including the geology of major metallic deposits and the uses and economics of metals. Field trips required.
- 3151 Economic Geology Laboratory**  
(0-3) 1 hour credit. Prerequisite: Concurrent enrollment in GEO 3143.  
Study of rock and mineral suites from important ore localities. Identification of ore minerals. Textures, structures, and alteration zones associated with ore deposits. Field trips required.
- 3163 Oceanography**  
(3-0) 3 hours credit. Prerequisite: Consent of instructor.  
General oceanography, with emphasis on marine geology and especially the continental margins. Field trips required.

- 3203 Rocks and Minerals**  
(3-0) 3 hours credit. Prerequisite: GEO 1103, GEO 1111, CHE 1103, MTC 1023, or consent of instructor.  
Description, classification, and origin of common rocks and minerals as well as gemstones and ores. Field trips required. May not be applied toward a B.S. degree in Geology.
- 3211 Rocks and Minerals Laboratory**  
(0-3) 1 hour credit. Prerequisite: Concurrent enrollment in GEO 3203.  
Laboratory study in hand specimens of common rocks, minerals, gemstones, and ores. May not be applied toward a B.S. degree in Geology. Field trips required.
- 3303 Introduction to Paleontology**  
(3-0) 3 hours credit. Prerequisite: GEO 1103, GEO 1111, CHE 1103, MTC 1023, or consent of instructor.  
Description, taxonomy, paleoecology, and correlation techniques of special interests to geoscientists will be introduced. May not be applied toward a B.S. degree in Geology. Field trips required.
- 3311 Introduction to Paleontology Laboratory**  
(0-3) 1 hour credit. Prerequisite: Concurrent enrollment in GEO 3303.  
Laboratory study in specimen characteristics, species analysis, collecting, and preservation techniques. May not be applied toward a B.S. degree in Geology. Field trips required.
- 3323 Global Tectonism and Geologic Processes**  
(3-0) 3 hours credit. Prerequisites: GEO 1103, GEO 1111, and MTC 1023 or above.  
Global tectonism is a framework for understanding the Earth. Students may explore the evolution of our current global tectonic paradigm from continental drift to plate tectonics. May not be applied toward a B.S. degree in Geology.
- 3331 Global Tectonism and Geologic Processes Laboratory**  
(0-3) 1 hour credit. Prerequisite: Concurrent enrollment in GEO 3323.  
Students will study the concepts that underlie global tectonism through the medium of hands-on activities specifically designed for adaptation and use in school classrooms. May not be applied toward a B.S. degree in Geology.
- 3374 Geochemistry**  
(2-4) 4 hours credit. Prerequisite: CHE 1303 or consent of instructor.  
A survey of geochemical processes and the distribution of elements in the earth. Application of chemical methods and data to the solution of geologic problems.
- 3383 General Geophysics**  
(3-0) 3 hours credit. Prerequisites: GEO 3043 and GEO 3052.  
Physics of the earth's interior, plate tectonics, geomagnetism, gravity, and heat flow.
- 4013 Volcanology**  
(3-0) 3 hours credit. Prerequisite: GEO 3043 or GEO 3203.  
A survey of volcanoes and volcanic processes, including historically important volcanic eruptions and the prediction and mitigation of volcanic hazards. Field trips required.
- 4023 Engineering Geology**  
(3-0) 3 hours credit. Prerequisite: PHY 1904, PHY 1603, MAT 1214, or consent of instructor.  
Geologic factors in construction. Geotechnical properties of minerals, rocks, and soils. Case studies. Field trips required. (Formerly GEO 3023. Credit cannot be earned for both GEO 4023 and GEO 3023.)
- 4063 Principles of Environmental Geology**  
(3-0) 3 hours credit. Prerequisites: GEO 1103 and GEO 1111.  
An analysis of human interaction with geologic systems; the risks and effects of natural geologic hazards such as volcanic eruptions, earthquakes, and floods. Topics will include the effects of human activity on natural systems such as groundwater quality and recharge, river systems, and coasts. The meaning of "geologic repository" for human waste disposal and how the concept is applied will also be addressed.

- 4113 Geomorphology**  
(3-0) 3 hours credit. Prerequisites: GEO 1103, GEO 1111, and concurrent enrollment in GEO 4121.  
Analysis of Cenozoic landform evolution. Field trips required.
- 4121 Geomorphology Laboratory**  
(0-3) 1 hour credit. Prerequisites: GEO 1103, GEO 1111, and concurrent enrollment in GEO 4113.  
Interpretation of maps and aerial photographs. Field trips required.
- 4193 Field-Based Inquiry**  
(2-2) 3 hours credit. Prerequisites: Level II core course science and mathematics requirements.  
This course will enable future teachers to integrate fieldwork and inquiry into their curriculum. Observational and descriptive skills from a field-based research perspective will be emphasized. Mapping techniques will include pace-and-compass mapping, plane table mapping, and an introduction to global positioning system (GPS) and geographic information systems (GIS) mapping. An interdisciplinary approach that explores Earth system interactions will be highlighted. Students will develop and carry out a research project based upon fieldwork. Students in this course will spend significant time outdoors traveling over rough terrain. (Same as ES 4193. Credit cannot be earned for both GEO 4193 and ES 4193.)
- 4623 Ground-Water Hydrology**  
(3-0) 3 hours credit. Prerequisites: GEO 1103, GEO 1111, and PHY 1904; or PHY 1603 and MAT 1214.  
Hydrologic cycle and the theory of underground water. Recharge and discharge of aquifers; water quality; exploration and development of ground-water supplies. Field trips required.
- 4803 X-Ray Crystallography**  
(3-0) 3 hours credit. Prerequisite: Consent of instructor.  
The principles and applications of x-ray diffraction to crystalline materials.
- 4911-3 Independent Study**  
1 to 3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, the Department Chair, and Dean of the College in which the course is offered.  
Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree in geology.
- 4946 Field Geology**  
(6-12) 6 hours credit. Prerequisites: GEO 3103, GEO 3111, and consent of instructor.  
Field mapping and measurements during a seven-week period in summer. (Formerly GEO 4947. Credit cannot be earned for both GEO 4946 and GEO 4947.)
- 4951-3 Special Studies in Geology and Environmental Science**  
(1-0, 2-0, 3-0) 1 to 3 hours credit. Prerequisite: Consent of instructor.  
An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when the topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.
- 4993 Honors Research**  
3 hours credit. Prerequisites: Enrollment limited to candidates for college honors during their last two semesters; approval by the College Honors Committee.  
Supervised research and preparation of an honors thesis. May be repeated only once with approval.

**COURSE DESCRIPTIONS**  
**ENVIRONMENTAL SCIENCE**  
**(ES)**

**2013 Introduction to Environmental Systems I**

(3-0) 3 hours credit.

An introduction to the biotic principles of man-machine-community interrelationships within the natural and built environments. General attention is given to the biotic concepts of growth, processes, and changes occurring in ecosystems and social structures. Emphasis on understanding system dynamics and their relation to public policy formulation and natural resource use. May apply toward the Level I Core Curriculum requirement in science. [TCCN: BIOL 2306.]

**2021 Introduction to Environmental Systems I Laboratory**

(0-3) 1 hour credit. Concurrent enrollment in ES 2013 is recommended.

Qualitative and quantitative methods in the study of biotic environmental systems.

**2023 Introduction to Environmental Systems II**

(3-0) 3 hours credit.

An introduction to the abiotic principles of man-machine-community interrelationships within the natural and built environments. General attention is given to the abiotic environmental factors including natural hazards (earthquakes, fires, volcanoes, landslides, and floods), pollution processes, energy resources, and changes occurring in ecosystems. Emphasis on understanding system dynamics and their relation to natural resource use.

**2031 Introduction to Environmental Systems II Laboratory**

(0-3) 1 hour credit. Concurrent enrollment in ES 2023 is recommended.

Qualitative and quantitative methods in the study of abiotic environmental systems.

**3023 Man and His Natural Resources**

(3-0) 3 hours credit.

An in-depth analysis of humankind's dependency on the major natural resources of the earth such as water, air, soils, forests, grasslands, minerals, fuels, and wildlife, and the environmental problems that arise through societal mismanagement.

**3034 Environmental Ecology**

(3-3) 4 hours credit. Prerequisites: ES 2013 and ES 2023, or consent of instructor.

Examination of the interactions of biotic and abiotic systems, including interactions of plants, animals, and the environment.

**3044 Environmental Quality**

(3-3) 4 hours credit. Prerequisites: ES 2013 and ES 2023, or consent of instructor.

Evaluation of present and future strategies to measure, appraise, model, and preserve a healthy environment.

**3054 Environmental Remediation**

(3-3) 4 hours credit. Prerequisites: ES 2013 and ES 2023, or consent of instructor.

Evaluations of present and future strategies used to clean up or remediate various terrestrial, aquatic, and marine environments.

**3104 Environmental Microbiology**

(3-3) 4 hours credit. Prerequisites: ES 2013 and ES 2023, or consent of instructor.

Examination of the interaction between microorganisms and their environment, including various natural habitats. Special consideration is given to application of genetically engineering microorganisms for solving environmental problems.

**3203 Environmental Law**

(3-0) 3 hours credit.

Present day environmental enabling acts and regulations will be covered, with emphasis on federal acts, such as the National Environmental Policy Act, Clean Water Act, Resource Conservation and Recovery Act, and associated regulations.

**4043 Introduction to Geographic Information Systems (GIS)**

(2-2) 3 hours credit.

An introduction to the computer as a mapping device for the query, analysis, creation, and display of spatially related environmental data. This course teaches GIS fundamentals with the widely used GIS software ArcView. Additional topics include using the Global Positioning System (GPS) for data acquisition.

**4053 Advanced Geographic Information Systems**

(2-2) 3 hours credit. Prerequisite: ES 4043 or consent of instructor.

Geographic Information Systems (GIS) are an excellent tool for modeling, analyzing, and managing environmental systems. This course teaches advanced concepts and applications of industry standard GIS software in an environmental context. Additional topics include data creation with Global Positioning System (GPS), digitizing, remote sensing, Graphical User Interface (GUI) manipulation, and scripting.

**4063 Global Positioning System (GPS) Mapping**

(2-2) 3 hours credit.

Students will have the opportunity to learn methods for using the space-based Global Positioning System (GPS) for navigation and for the creation of natural resource inventory maps. Course will cover topics such as base station and rover operations, differential correction of data, creation of data dictionaries, accuracy, mapping under adverse conditions, etc. Students in this course will spend significant time outdoors traveling over rough terrain. Students successfully completing this course will receive Trimble GPS certification.

**4083 Advanced Global Positioning System (GPS) Mapping**

(2-2) 3 hours credit. Prerequisite: ES 4063 or consent of instructor.

Advanced techniques for data collection utilizing a variety of Global Positioning System (GPS) receivers. Topics include acquisition of subcentimeter data, determination of accuracy and precision, advanced receiver configurations, application development and precision agriculture. Students in this course will spend significant time outdoors traveling over rough terrain.

**4093 Remote Sensing**

(2-2) 3 hours credit.

Methods for interpreting remotely sensed environmental data such as satellite and aerial photograph imagery. Topics covered include photo interpretation, determination of scale, photogrammetric correction, land-cover and land-use classification. The use of image analysis software will also be studied.

**4104 Global Change**

(3-3) 4 hours credit.

Examination of the impact of man and his activities on the environment: their effect on aquatic, marine, and terrestrial plant, animal, and human resources.

**4193 Field-Based Inquiry**

(2-2) 3 hours credit. Prerequisite: Level II core course science and mathematics requirements.

This course will enable future teachers to integrate fieldwork and inquiry into their curriculum. Observational and descriptive skills from a field-based research perspective will be emphasized. Mapping techniques will include pace-and-compass mapping, plane table mapping, and an introduction to global positioning system (GPS) and geographic information systems (GIS) mapping. An interdisciplinary approach that explores Earth system interactions will be highlighted. Students will develop and carry out a research project based upon fieldwork. Students in this course will spend significant time outdoors traveling over rough terrain. (Same as GEO 4193. Credit cannot be earned for both ES 4193 and GEO 4193.)

**4203 Environmental Assessment**

(3-0) 3 hours credit.

Examination of environmental problems as well as their possible impact and potential solutions will be presented and explored from a variety of areas including soil, air, water, coastal and marine systems.

**4204 Environmental Toxicology**

(3-3) 4 hours credit. Prerequisites: ES 2013 and ES 2023, or consent of instructor.

Examination of advanced or specialized hazardous or toxic waste treatment methods. Emphasis will be on physical, chemical, and biological processes in treatment and processing of hazardous wastes materials.

**4911-3 Independent Study**

1 to 3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, the Department Chair and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4951-3 Special Studies in Environmental Science**

(1-0, 2-0, 3-0) 1 to 3 hours credit. Prerequisite: Consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when the topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

## DEPARTMENT OF MATHEMATICS

The Department of Mathematics offers a Bachelor of Science degree in Mathematics. The degree is offered in two concentrations: Mathematics and General Mathematical Studies. The Mathematics Concentration offers students the opportunity to prepare to provide technical support and do research for high-technology industries, government, and private companies; to teach mathematics at the secondary level; and to pursue advanced graduate study. The General Mathematical Studies Concentration is designed primarily for those students wishing to teach mathematics at the secondary level. The department also offers a Minor in Mathematics. Students interested in electives in Statistics, a minor in Applied Statistics, or a Bachelor of Science degree in Statistics, should refer to the Department of Management Science and Statistics in the College of Business section of this catalog.

### Bachelor of Science Degree in Mathematics

The Bachelor of Science degree in Mathematics is offered with two concentrations: Mathematics and General Mathematical Studies.

The minimum number of semester credit hours required for this degree, including the Core Curriculum requirements, is 126. Thirty-nine of the total semester credit hours required for the degree must be at the upper-division level.

Students choosing the General Mathematical Studies Concentration should satisfy the Core Curriculum requirements consistent with the State Board for Educator Certification.

All required and elective mathematics and statistics courses must be completed with a grade of “C” or better.

All candidates for this degree must fulfill the Core Curriculum requirements and the mathematics requirements, which are listed in the following pages. In addition, a candidate for the Bachelor of Science degree in Mathematics must complete the course requirements for the concentration declared by the candidate.

**Core Curriculum requirements:** Students seeking the Bachelor of Science Degree in Mathematics must fulfill University Core Curriculum requirements. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) This requirement can be satisfied with MAT 1214 for mathematics majors. (Students not prepared to begin MAT 1214 must take MAT 1093 Precalculus.) <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement or 6 hours from Level Two.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Economics</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

### Mathematics Degree Requirements

All candidates for the Bachelor of Science degree in Mathematics, regardless of concentration, must complete the following 28 semester credit hours of required courses (this includes the 3 semester credit hours of the Core Curriculum requirement in mathematics):

MAT	1214	Calculus I (The student who is not prepared to begin MAT 1214 must take MAT 1093 Precalculus.)
MAT	1223	Calculus II
MAT	2213	Calculus III
MAT	2233	Linear Algebra
MAT	3013	Foundations of Mathematics
MAT	3213	Foundations of Analysis
MAT	4213	Real Analysis I
STA	3513	Probability and Statistics
STA	3523	Statistical Methods

In addition, a candidate for the Bachelor of Science degree in Mathematics must complete the course requirements for the concentration declared by the candidate.

### Mathematics Concentration

All candidates for this concentration must fulfill the Core Curriculum requirements, the mathematics degree requirements, as well as the course requirements necessary for this concentration.

A. 3 or 4 semester credit hours of computer science:

CS	1073	Introductory Computer Programming for Scientific Applications
		or
CS	1713, 1711	Introduction to Computer Science and Recitation
		or
CS	2073	Computer Programming with Engineering Applications

B. 15 semester credit hours of required courses:

MAT	3243	Calculus for Applications
MAT	3613	Differential Equations I
MAT	3633	Numerical Analysis
MAT	4223	Real Analysis II
MAT	4233	Modern Abstract Algebra

C. 6 additional semester credit hours of upper-division courses in mathematics or statistics approved by the student's advisor

D. 34 to 35 semester credit hours of electives

### General Mathematical Studies Concentration

All candidates for this concentration must fulfill the Core Curriculum requirements, the mathematics degree requirements, as well as the course requirements necessary for this concentration.

A. 3 to 4 semester credit hours of computer science:

CS	1063	Introduction to Computer Programming
		or
CS	1073	Introductory Computer Programming for Scientific Applications
		or
CS	1713, 1711	Introduction to Computer Science and Recitation
		or
CS	2073	Computer Programming with Engineering Applications

B. 15 semester credit hours of mathematics and/or statistics:

1. 9 semester credit hours of mathematics:

MAT	3233	Modern Algebra
MAT	4113	Computer Mathematical Topics
MAT	4263	Geometry

2. 6 approved upper-division semester credit hours in mathematics or statistics

C. 6 semester credit hours of required academic foundations:

COM	1043	Introduction to Communication
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3 additional semester credit hours of English literature

D. 34 to 35 semester credit hours of electives

Students seeking teacher certification should use 21 of these hours for the required certification courses. Other students should take an additional 6 semester credit hours of upper-division mathematics or statistics courses approved by the undergraduate advisor for the Department of Mathematics.

Certification requirements for students pursuing the General Mathematical Studies Concentration are different from degree requirements. In addition to specific course requirements, teacher certification in Texas also requires passing scores on a Texas Success Initiative approved assessment instrument test and acceptable scores on the state-mandated exit competency test. Complete information may be obtained in the College of Education and Human Development Advising and Certification Center at UTSA.

## Minor in Mathematics

All students pursuing the Minor in Mathematics must complete 22 semester credit hours.

A. 16 semester credit hours of required courses:

MAT	1214	Calculus I
MAT	1223	Calculus II
MAT	2213	Calculus III
MAT	2233	Linear Algebra
MAT	3613	Differential Equations I

B. 6 semester credit hours of approved upper-division mathematics electives

To declare a Minor in Mathematics, obtain advice, or seek approval of substitutions for course requirements, students should consult the College of Sciences Undergraduate Advising Center.

## COURSE DESCRIPTIONS MATHEMATICS (MAT)

### 1093 Precalculus

(3-0) 3 hours credit. Prerequisite: MTC 1023 or MTC 1073, or the equivalent course or satisfactory performance on a placement examination.

Exponential functions, logarithmic functions, trigonometric functions, complex numbers, DeMoivre's theorem, and polar coordinates. [TCCN: MATH 2312.]

### 1143 Essential Elements in Mathematics

(3-0) 3 hours credit. Prerequisite: MTC 1023.

Numeration systems; properties of the systems of whole numbers, integers, rational numbers, and real numbers; problem solving; geometry and measurement; probability and statistics; logic. May not be applied toward a major in mathematics. (Credit cannot be earned for both MAT 1143 and MAT 1153.)

### 1153 Essential Elements in Mathematics I

(3-0) 3 hours credit. Prerequisite: MTC 1023 or MTC 1073.

Numeration systems; properties of the systems of whole numbers, integers, rational numbers, and real numbers; problem solving; logic. May not be applied toward a major in mathematics. (Credit cannot be earned for both MAT 1153 and MAT 1143.) [TCCN: MATH 1350.]

### 1163 Essential Elements in Mathematics II

(3-0) 3 hours credit. Prerequisite: MAT 1153.

Algebra, statistics and probability; geometric shapes; measurement; coordinate and transformational geometry. May not be applied toward a major in mathematics. [TCCN: MATH 1351.]

### 1203 Calculus Concepts and Applications

(3-0) 3 hours credit. Prerequisite: MAT 1093.

This course is primarily for students pursuing a degree in Interdisciplinary Studies and/or seeking Pre-K through 8 teacher certification. The course will include the following calculus concepts: functions, limits, derivatives, and integrals. Applications and the use of technology are incorporated throughout the course. This course may not be applied toward a major in mathematics and will not meet the prerequisite for MAT 1223 Calculus II.

- 1214 Calculus I**  
(4-0) 4 hours credit. Prerequisite: MAT 1093 or an equivalent course or satisfactory performance on a placement examination.  
An introduction to the concepts of limit, continuity and derivative, mean value theorem, and applications of derivatives such as velocity, acceleration, maximization, and curve sketching; introduction to the Riemann integral and the fundamental theorem of calculus. [TCCN: MATH 2413.]
- 1223 Calculus II**  
(3-0) 3 hours credit. Prerequisite: MAT 1214.  
Methods of integration, inverse trigonometric functions, and applications of the integral. [TCCN: MATH 2314.]
- 2213 Calculus III**  
(3-0) 3 hours credit. Prerequisite: MAT 1223.  
Special areas of differential and integral calculus; includes Taylor series, power series, convergence tests, vectors, functions of several variables, partial derivatives, and multiple integrals. [TCCN: MATH 2315.]
- 2233 Linear Algebra**  
(3-0) 3 hours credit. Prerequisite: MAT 2213 or EGR 2323.  
Vector spaces and matrix algebra, matrices and determinants, characteristic values of matrices, and reduction to canonical forms. Emphasis on applications. [TCCN: MATH 2318.]
- 3013 Foundations of Mathematics**  
(3-0) 3 hours credit. Prerequisite: MAT 1214.  
Development of theoretical tools for rigorous mathematics. Topics may include mathematical logic, propositional and predicate calculus, set theory, functions and relations, cardinal and ordinal numbers, Boolean algebras, and construction of the natural numbers, integers, and rational numbers. Emphasis on theorem proving. (Formerly MAT 2243. Credit cannot be earned for MAT 3013 and MAT 2243.)
- 3123 Fundamentals of Geometry**  
(3-0) 3 hours credit. Prerequisites: MAT 1214 and MAT 3013.  
A survey of geometric concepts, including axiomatic development of advanced Euclidean geometry, coordinate geometry, non-Euclidean geometry, three-dimensional geometry, and topology. May not be applied toward a major in mathematics other than the General Mathematical Studies Concentration of the B.S. degree in Mathematics.
- 3213 Foundations of Analysis**  
(3-0) 3 hours credit. Prerequisites: MAT 1214 and MAT 3013.  
Axiomatic definition of real numbers, including order properties and completeness; infinite sequences and their convergence; basic notions related to series and their convergence; functions and function limits. Introduction to topology of the real line. Emphasis on theorem proving.
- 3223 Complex Variables**  
(3-0) 3 hours credit. Prerequisites: MAT 2213 and MAT 3013.  
An introduction to complex variables, including elementary functions, line integrals, power series, residues and poles, and conformal mappings.
- 3233 Modern Algebra**  
(3-0) 3 hours credit. Prerequisites: MAT 1214 and MAT 3013.  
Topics will include the development of groups, integral domains, fields, and number systems, including the complex numbers. Divisibility, congruences, primes, perfect numbers, and some other problems of number theory will be considered.
- 3243 Calculus for Applications**  
(3-0) 3 hours credit. Prerequisite: MAT 2233.  
Line vector differential and integral calculus, line integrals, Green's theorem, Stokes' theorem and Divergence theorem.

- 3253 Engineering Analysis**  
(3-0) 3 hours credit. Prerequisite: MAT 2213.  
Ordinary differential equations, Laplace transforms, linear algebra, and matrix arithmetic. May not be applied to a major in mathematics.
- 3273 Applied Mathematics for Sciences and Engineering**  
(3-0) 3 hours credit. Prerequisite: MAT 3253 or MAT 3613.  
Complex analysis, Fourier series, Fourier transforms, harmonic analysis, and partial differential equations. (Formerly MAT 3263. Credit cannot be earned for both MAT 3273 and MAT 3263.)
- 3613 Differential Equations I**  
(3-0) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in MAT 2233.  
Basic notions of differential equations, solution of first-order equations and linear equations with constant coefficients,  $n^{\text{th}}$ -order initial value problems, and power series solutions of differential equations.
- 3623 Differential Equations II**  
(3-0) 3 hours credit. Prerequisite: MAT 3613.  
Continuation of MAT 3613. Stability, partial differential equations, and boundary value problems.
- 3633 Numerical Analysis**  
(3-0) 3 hours credit. Prerequisites: MAT 2233, MAT 3213, and either CS 1073, CS 2073, or CS 1713.  
Solution of linear and nonlinear equations, curve-fitting, and eigenvalue problems.
- 3653 Stochastic Calculus**  
(3-0) 3 hours credit. Prerequisite: STA 3513  
Probability, random walk, Brownian motion, stationary and evolutionary processes and stochastic differential equations.
- 4013 Graphing Calculator Topics**  
(3-0) 3 hours credit. Prerequisites: MAT 1223 and MAT 3233.  
Mathematical topics from algebra, trigonometry, calculus, modeling, and probability and statistics will be investigated using the graphing calculator. Assessment and evaluation techniques using technology will also be included. May not be applied toward a major in mathematics other than the General Mathematics Studies Concentration of the B.S. degree in Mathematics.
- 4113 Computer Mathematical Topics**  
(3-0) 3 hours credit. Prerequisites: MAT 3233, and either MAT 3123 or MAT 4263.  
Mathematical topics from consumer mathematics, algebra, geometry, number theory, and probability and statistics will be investigated using the computer. Course will also include some instruction in BASIC programming language. May not be applied toward a major in mathematics other than the General Mathematical Studies Concentration of the B.S. degree in Mathematics.
- 4123 History of Mathematics**  
(3-0) 3 hours credit. Prerequisites: MAT 3233, and either MAT 3123 or MAT 4263.  
Selected subjects in mathematics developed through historical perspectives and biographies. May not be applied toward a major in mathematics other than the General Mathematical Studies Concentration of the B.S. degree in Mathematics.
- 4213 Real Analysis I**  
(3-0) 3 hours credit. Prerequisite: MAT 3213.  
Continuous functions, uniform continuity; theory of differentiation; applications of the derivative to properties of functions; antiderivatives; Riemann integral; connection between differentiation and integration.
- 4223 Real Analysis II**  
(3-0) 3 hours credit. Prerequisite: MAT 4213.  
Lebesgue integral on the real line;  $n$ -dimensional spaces; vectors; calculus of functions of several variables; multidimensional integration.

- 4233 Modern Abstract Algebra**  
(3-0) 3 hours credit. Prerequisite: MAT 3213.  
An in-depth study of groups and rings.
- 4253 Number Theory**  
(3-0) 3 hours credit. Prerequisite: MAT 3213.  
The theory of primes, congruences, and related subjects.
- 4263 Geometry**  
(3-0) 3 hours credit. Prerequisite: MAT 3013.  
Projective, affine, and non-Euclidean geometry.
- 4273 Topology**  
(3-0) 3 hours credit. Prerequisite: MAT 3213.  
Set theory, including cardinal and ordinal numbers. Topological properties of the real-line and metric spaces.
- 4313 Applied Combinatorics**  
(3-0) 3 hours credit. Prerequisite: MAT 1223.  
Permutations, combinations, arrangements, selections, distributions, generating functions, inclusion-exclusion principle.
- 4323 Applied Graph Theory**  
(3-0) 3 hours credit. Prerequisite: MAT 1223.  
Isomorphism, planarity, computer representation of graphs, covering circuits and graph colorings, Euler and Hamiltonian graphs, trees and searching network algorithms (shortest paths, connectivity, traveling salesman, network flow, matching, sorting, etc.)
- 4803 Statistical Quality Control**  
(3-0) 3 hours credit. Prerequisite: STA 1993 or STA 3513.  
Statistical methods are introduced in terms of problems that arise in manufacturing and their applications to the control of manufacturing processes. Topics include control charts and acceptance sampling plans. (Same as STA 4803. Credit cannot be earned for both MAT 4803 and STA 4803.)
- 4913 Independent Study**  
3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, the Department Chair, and Dean of the College in which the course is offered.  
Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.
- 4953 Special Studies in Mathematics**  
(3-0) 3 hours credit. Prerequisite: Consent of instructor.  
An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. May be repeated for credit when the topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.
- 4993 Honors Research**  
3 hours credit. Prerequisite: Enrollment limited to candidates for College Honors during their last two semesters; approval by the College Honors Committee.  
Supervised research and preparation of an honors thesis.

**COURSE DESCRIPTIONS**  
**UTEACH**  
**(UTE)**

**1011 UTeach Mathematics/Science I**

(1-2) 1 hour credit.

This course introduces students to the prospect of mathematics and science secondary teaching as a career choice through hands-on experiences observing and teaching in an elementary classroom. Students will work in teams with an exemplary elementary teacher at one of the local school districts participating in mathematics and science classes. Class activities will emphasize the qualities of good mathematics and science teaching, including standards-based instruction and the integration of resources into effective class planning. Field-based experiences required. Restricted course; UTeach Office approval required for registration.

**1021 UTeach Mathematics/Science II**

(1-2) 1 hour credit. Prerequisite UTE 1011.

Builds on the teaching practices, lesson plan design, and instructional models used in UTE 1011, but in a middle school setting. Students become familiar with the reform movements in the middle school concept and philosophy. Through class activities and observations of middle school mathematics and science teachers, students identify the instructional and management strategies and assessment techniques appropriate to early adolescence. Students work in teams with an exemplary middle school teacher to design and deliver lessons appropriate to middle school students. Field-based experiences required. Restricted course; UTeach Office approval required for registration.

## DEPARTMENT OF PHYSICS AND ASTRONOMY

The degree programs offered by the Department of Physics and Astronomy reflect its policy of offering the opportunity for a comprehensive education of the highest quality, individualized to the needs and interests of the students. Completion of a Bachelor's degree in Physics allows students entry into one of the highly specialized areas in science and technology, and ability to apply for positions in industry and government, as well as entry into professional and graduate schools.

### Bachelor of Science Degree in Physics

The Bachelor of Science degree in Physics provides opportunities for preparation for careers in industry and governmental agencies and for graduate study in physics or related fields.

The minimum number of semester credit hours required for this degree, including the Core Curriculum requirements, is 124.

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

All Bachelor of Science degree candidates are required to take a standardized assessment test during the semester of graduation. This test will be used to assess the effectiveness of the Physics Program. There is no "minimum score" required for graduation; merely taking the test satisfies this degree requirement.

**Core Curriculum requirements:** Students seeking the Bachelor of Science degree in Physics must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both major requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<i>Mathematics</i> (3 semester credit hours) MAT 1214 Calculus I <i>Science</i> (6 semester credit hours) Any 6 semester credit hours from the following list will satisfy this core requirement: CHE 1103 General Chemistry I CHE 1303 General Chemistry II PHY 1904, 1911 Technical Physics I and Laboratory PHY 1924, 1931 Technical Physics II and Laboratory
<b>Domain II: Society and Culture</b>	<i>United States History and Diversity</i> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <i>Political Studies</i> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <i>Social and Behavioral Sciences</i> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <i>Economics</i> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

<b>Domain III: Literature and the Arts</b>	<p><b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Degree Requirements

#### A. 55 semester credit hours:

##### 1. 43 semester credit hours of required courses:

PHY	1904, 1911	Technical Physics I and Laboratory
PHY	1924, 1931	Technical Physics II and Laboratory
PHY	3103	Modern Physics
PHY	3203	Classical Mechanics I
PHY	3293	Thermal Physics
PHY	3343	Advanced Physics Laboratory
PHY	3423	Electricity and Magnetism
PHY	3443	Modern Optics
PHY	3513	Electrodynamics
PHY	3823	Mathematical Physics I
PHY	4263	Quantum Mechanics I
PHY	4423	Quantum Mechanics II
PHY	4823	Mathematical Physics II

##### 2. 12 additional approved semester credit hours selected from the following (a maximum of 6 hours from either PHY 4911-3 or PHY 4953 may apply to this requirement):

PHY	3123	Semiconductor Technology
PHY	3143	Computer Visualization of Physics
PHY	3313	Solid State Physics
PHY	3453	Lasers: Theory and Applications
PHY	4003	Introduction to Astrophysics
PHY	4013	Relativity: Special and General
PHY	4033	Cosmology
PHY	4133	Numerical Methods for Physicists
PHY	4203	Classical Mechanics II
PHY	4563	Biophotonics
PHY	4911-3	Independent Study
PHY	4953	Special Studies in Physics
PHY	4993	Honors Research

#### B. 36 semester credit hours required in the College of Sciences:

##### 1. 27 semester credit hours of required courses (excluding physics):

CHE	1103	General Chemistry I
CHE	1303	General Chemistry II
CHE	1312	General Chemistry II Laboratory
CS	1073	Introductory Computer Programming for Scientific Applications

MAT	1214	Calculus I
MAT	1223	Calculus II
MAT	2213	Calculus III
MAT	2233	Linear Algebra
MAT	3613	Differential Equations I

2. 9 additional approved semester credit hours in the College of Sciences

## Bachelor of Arts Degree in Physics

The Bachelor of Arts degree in Physics provides opportunities for careers in several professional fields. It is not recommended for students planning to pursue graduate studies in physics or related fields.

The minimum number of semester credit hours required for this degree, including the Core Curriculum requirements, is 121.

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Arts degree in Physics must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MAT 1214 Calculus I <b>Science</b> (6 semester credit hours) Any 6 semester credit hours from the below list will satisfy this core requirement: CHE 1103 General Chemistry I CHE 1303 General Chemistry II PHY 1904, 1911 Technical Physics I and Laboratory PHY 1924, 1931 Technical Physics II and Laboratory
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

<b>Domain III: Literature and the Arts</b>	<p><b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>

### Degree Requirements

#### A. 31 semester credit hours:

##### 1. 28 semester credit hours of required courses:

PHY	1904, 1911	Technical Physics I and Laboratory
PHY	1924, 1931	Technical Physics II and Laboratory
PHY	3103	Modern Physics
PHY	3203	Classical Mechanics I
PHY	3293	Thermal Physics
PHY	3343	Advanced Physics Laboratory
PHY	3423	Electricity and Magnetism
PHY	3823	Mathematical Physics I

##### 2. 3 additional semester credit hours selected from the following:

PHY	3143	Computer Visualization of Physics
PHY	3313	Solid State Physics
PHY	3443	Modern Optics
PHY	4003	Introduction to Astrophysics
PHY	4013	Relativity: Special and General
PHY	4033	Cosmology
PHY	4133	Numerical Methods for Physicists
PHY	4263	Quantum Mechanics I

#### B. 57 semester credit hours required in the College of Sciences:

##### 1. 21 semester credit hours of required courses (excluding physics):

CHE	1103	General Chemistry I
CHE	1303	General Chemistry II
CHE	1312	General Chemistry II Laboratory
CS	1073	Introductory Computer Programming for Scientific Applications
MAT	1214	Calculus I
MAT	1223	Calculus II
MAT	2213	Calculus III

##### 2. 36 additional approved semester credit hours from the College of Sciences

## Minor in Physics

The Department of Physics and Astronomy also offers a Minor in Physics, which serves to increase the value of the student's major concentration. All students pursuing the Minor in Physics must complete 22 semester credit hours.

A. 19 semester credit hours of required courses:

PHY	1904, 1911	Technical Physics I and Laboratory
PHY	1924, 1931	Technical Physics II and Laboratory
PHY	3103	Modern Physics
PHY	3203	Classical Mechanics I
PHY	3423	Electricity and Magnetism

B. 3 semester credit hours selected from the following:

PHY	3143	Computer Visualization of Physics
PHY	3293	Thermal Physics
PHY	3313	Solid State Physics
PHY	3443	Modern Optics
PHY	3823	Mathematical Physics I
PHY	4133	Numerical Methods for Physicists
PHY	4263	Quantum Mechanics I

To declare a Minor in Physics, obtain advice, or seek approval of substitutions for course requirements, students should consult the College of Sciences Undergraduate Advising Center.

## COURSE DESCRIPTIONS

### PHYSICS (PHY)

#### 1013 Universes

(3-0) 3 hours credit. Prerequisite: MTC 1073 or consent of instructor.

This course is an introduction to contemporary physics and cosmology. The goal is to study some of the profound discoveries in fundamental physics made during the 20th century, and how they have shaped our modern conception of the universe and of our place in it. Topics discussed include Einstein's theories of special and general relativity, quantum physics, modern cosmology (including the very early universe), and the standard model of elementary particles and forces. May not be applied toward the B.S. degree in Physics without prior written approval of the department. May apply toward the Level II Core Curriculum requirement in science. (Formerly AST 1003. Credit cannot be earned for both PHY 1013 and AST 1003.) [TCCN: PHYS 1310.]

#### 1113 Basic Physics

(3-0) 3 hours credit. Prerequisite: MTC 1073 or consent of instructor.

This course is an elementary introduction to physics and the scientific method. It is designed to strengthen math-based problem solving skills and to prepare the student for more advanced work in the physical sciences. Students who have not had physics in high school and/or need preparation for PHY 1603 or PHY 1904 may find this course especially valuable. Topics discussed include algebra and trigonometry in physics, one- and two-dimensional kinematics, forces, energy, and momentum. May not be applied toward a B.S. or B.A. degree in Physics.

#### 1213 The Fringes of Science

(3-0) 3 hours credit.

This course examines the relationship between science and pseudo-science. It is intended to equip the student with the critical-thinking skills needed to distinguish between solid science and claims often promoted as scientific.

Classes are a combination of lectures, readings from the history and philosophy of science, class discussion, field trips, etc. Topics discussed may include astrology, black holes, parapsychology, quantum physics, UFOs, homeopathy and other alternative therapies.

- 1603 General Physics I**  
 (3-0) 3 hours credit. Prerequisite: MTC 1073 completed with a grade of “C” or better.  
 Motion, forces, conservation of energy and momentum, fluids, wave motion, and heat. Concurrent enrollment in PHY 1611 recommended. May apply toward the Level II Core Curriculum requirement in science. [TCCN: PHYS 1301.]
- 1611 General Physics I Laboratory**  
 (1-3) 1 hour credit. Prerequisites: Completion of or concurrent enrollment in PHY 1603; proficiency in DOS, spreadsheets, and word processing.  
 Laboratory accompanies PHY 1603; uses modern data acquisition and analysis tools to study the classic physics experiments that underlie the concepts discussed in PHY 1603. [TCCN: PHYS 1101.]
- 1623 General Physics II**  
 (3-0) 3 hours credit. Prerequisite: PHY 1603 completed with a grade of “C” or better.  
 Electrostatics, electromagnetism, light, sound, and atomic and nuclear physics. Concurrent enrollment in PHY 1631 recommended. May apply toward the Level II Core Curriculum requirement in science. [TCCN: PHYS 1302.]
- 1631 General Physics II Laboratory**  
 (1-3) 1 hour credit. Prerequisites: PHY 1611 completed with a grade of “C” or better and completion of or concurrent enrollment in PHY 1623; proficiency in DOS, spreadsheets, and word processing.  
 Laboratory accompanies PHY 1623; uses modern data acquisition and analysis tools to study the classic physics experiments that underlie the concepts discussed in PHY 1623. [TCCN: PHYS 1102.]
- 1904 Technical Physics I**  
 (4-0) 4 hours credit. Prerequisites: MAT 1214 completed with a grade of “C” or better and completion of or concurrent enrollment in MAT 1223.  
 The basic concepts and methods of physics. Mechanics, heat, and fluids. Concurrent enrollment in PHY 1911 and MAT 1223 recommended. May apply toward the Level II Core Curriculum requirement in science. [TCCN: PHYS 2425.]
- 1911 Technical Physics I Laboratory**  
 (1-3) 1 hour credit. Prerequisites: Completion of with a grade of “C” or better or concurrent enrollment in PHY 1904; proficiency in DOS, spreadsheets, and word processing.  
 Laboratory to accompany PHY 1904; uses modern data acquisition and analysis tools to study the classic physics experiments that underlie the concepts discussed in PHY 1904. [TCCN: PHYS 2125.]
- 1924 Technical Physics II**  
 (4-0) 4 hours credit. Prerequisites: PHY 1904 and MAT 1223 completed with a grade of “C” or better.  
 Electricity and magnetism, wave phenomena, and elements of modern physics. Concurrent enrollment in PHY 1931 is recommended. May apply toward the Level II Core Curriculum requirement in science. [TCCN: PHYS 2426.]
- 1931 Technical Physics II Laboratory**  
 (1-3) 1 hour credit. Prerequisites: PHY 1911 completed with a grade of “C” or better and completion of or concurrent enrollment in PHY 1924; proficiency in DOS, spreadsheets, and word processing.  
 Laboratory to accompany PHY 1924. [TCCN: PHYS 2126.]
- 3103 Modern Physics**  
 (3-0) 3 hours credit. Prerequisite: PHY 1924.  
 Special relativity, Planck’s Radiation Law, elements of quantum mechanics, atomic and molecular structures, spectra, the atomic nucleus, nuclear reactions, and an introduction to elementary particles.

**3123 Semiconductor Technology**

(3-0) 3 hours credit. Prerequisites: PHY 1924 and completion of or concurrent enrollment in PHY 3103.

The course will encompass the theoretical and practical aspects of semiconductor technology currently utilized in industry. Topics to be included are: solid state devices, integrated circuits, microprocessor technology, and all stages of manufacturing. Basic principles involving oxidation, photolithography, etching, doping, deposition, and metalization will be covered. Crystal growth and major steps of wafer preparation will also be discussed.

**3143 Computer Visualization of Physics**

(3-0) 3 hours credit. Prerequisite: PHY 3103.

Simulations of physical processes from classical and quantum mechanics, electrodynamics, and solid state physics. May be applied toward a B.S. degree in Physics with approval of the physics advisor.

**3203 Classical Mechanics I**

(3-0) 3 hours credit. Prerequisite: PHY 1924, concurrent enrollment in PHY 3103, or consent of instructor.

Kinematics, the Newtonian formulation and the Lagrangian formulation, various applications including gravitation and planetary motion, and rigid body motion.

**3293 Thermal Physics**

(3-0) 3 hours credit. Prerequisites: PHY 1924, PHY 3103, and MAT 2213.

Fundamentals of thermodynamics: entropy, free energy, phase transitions, and thermodynamic potentials; equilibrium Maxwell-Boltzmann, Bose-Einstein, and Fermi-Dirac distribution functions; derivation of macroscopic equilibrium thermodynamics from statistical mechanics.

**3313 Solid State Physics**

(3-0) 3 hours credit. Prerequisite: PHY 3103.

Crystalline structures, phonons, energy bands, semiconductor crystals, and devices.

**3343 Advanced Physics Laboratory**

(0-6) 3 hours credit. Prerequisites: PHY 1924 and PHY 1931.

Laboratory experience in the areas of optics, modern physics, and solid state and surface physics. (Formerly PHY 3346. Credit cannot be earned for both PHY 3343 and PHY 3346.)

**3423 Electricity and Magnetism**

(3-0) 3 hours credit. Prerequisites: PHY 1924 and PHY 3823.

Vector calculus, electrostatics, magnetostatics, Faraday's Law, and solution to Laplace's equation.

**3443 Modern Optics**

(3-0) 3 hours credit. Prerequisite: PHY 3423 or consent of instructor.

Reflection, refraction, absorption, polarization, and diffraction of light. Filters, lasers, nonlinear properties, and Fourier optics.

**3453 Lasers: Theory and Applications**

(3-0) 3 hours credit. Prerequisite: PHY 3103.

Basic principles and designs of lasers: Einstein A and B coefficients; semiclassical laser theory; the phase-coherent nature of the stimulated emission process; and laser efficiency. Various applications of lasers, such as laser-induced fluorescence, light wave communications, holography, surgery, and laser fusion.

**3513 Electrodynamics**

(3-0) 3 hours credit. Prerequisites: PHY 3423 and PHY 3823.

Maxwell's equations, electromagnetic waves, wave guides, radiation from accelerated charges.

**3823 Mathematical Physics I**

(3-0) 3 hours credit. Prerequisites: MAT 2213 and PHY 1924, or consent of instructor.

Vector analysis, ordinary differential equations, linear algebra, and selected application to problems in mechanics and electromagnetic theory.

- 4003 Introduction to Astrophysics**  
(3-0) 3 hours credit. Prerequisite: PHY 3103 or consent of instructor.  
A survey of the fundamentals of modern astrophysics and gravitation including observed properties of stars (normal, multiple, variable, and peculiar). Stellar and nonstellar radiation laws, stellar and planetary atmospheres and interiors, high-energy astrophysics, collapsed objects (neutron stars and black holes), structure and inventory of normal (Milky Way) and active galaxies, quasars, and an introduction to cosmology.
- 4013 Relativity: Special and General**  
(3-0) 3 hours credit. Prerequisites: PHY 3203 and PHY 3823.  
Special relativity: Lorentz transformations, four-vectors, geometry of flat space-time, relativistic dynamics. General relativity: Principle of equivalence, introduction to tensor calculus, Einstein's field equations, Schwarzschild's solution, black holes. Introduction to cosmology.
- 4033 Cosmology**  
(3-0) 3 hours credit. Prerequisite: PHY 3103 or consent of instructor.  
Large-scale structure, expansion and age of the universe. Non-Euclidean spaces, big bang cosmology, baryogenesis, nucleosynthesis, cosmic microwave background radiation. Particle physics and inflationary cosmology.
- 4133 Numerical Methods for Physicists**  
(3-0) 3 hours credit. Prerequisites: PHY 1924 and MAT 3613.  
Numerical simulation of constrained and unconstrained rigid-body systems that are modeled according to physical laws; numerical solution to stiff systems of differential equations; use of automatic differentiation to compute Jacobian matrices associated with complex stiff systems.
- 4203 Classical Mechanics II**  
(3-0) 3 hours credit. Prerequisite: PHY 3203.  
Advanced methods in mechanics; Lagrangian and Hamiltonian formulations. Nonlinear dynamics, chaos, strange attractors, and fractals.
- 4233 Environmental Physics**  
(3-0) 3 hours credit. Prerequisite: PHY 3103 or consent of instructor.  
The essentials of environmental physics: global climate, energy for human use, pollutants, noise, environmental spectroscopy, and LIDAR. (Formerly PHY 3233. Credit cannot be earned for both PHY 4233 and PHY 3233.)
- 4263 Quantum Mechanics I**  
(3-0) 3 hours credit. Prerequisites: PHY 3103 and PHY 3203.  
The Schrodinger equation, operators, and perturbation methods. Applications to the harmonic oscillator and the hydrogen atom.
- 4423 Quantum Mechanics II**  
(3-0) 3 hours credit. Prerequisite: PHY 4263.  
The interaction of radiation with atomic systems, laser oscillations, band theory of electrons in crystals, and charge transport.
- 4463 The Invention Game**  
(3-0) 3 hours credit. Prerequisites: PHY 1603 and 1623, PHY 1904 and 1924, or consent of instructor.  
The entrepreneurial process usually is coupled to innovation, and in today's technological business world, innovation usually involves some form of applied physics. This course begins with the invention process itself and the physics behind some of the most famous inventions. It proceeds to look at the research and developmental physics that typically follow a new product concept. The course then examines the challenges that face the entrepreneur in the technical marketing of the new product, in which the physics must be conveyed to the consumer.

**4553 Health Physics**

(3-0) 3 hours credit. Prerequisite: PHY 1924 or the equivalent.

Applications of electromagnetic radiation to biological systems. Laser-tissue interaction: optical and thermal properties of biological tissues. Lasers in medicine: therapeutic, diagnostic, and surgical applications. Particular utilization of lasers in the field of ophthalmology. Introduction to nuclear medicine for diagnostic and therapeutic purposes.

**4563 Biophotonics**

(3-0) 3 hours credit. Prerequisite: PHY 3443 or consent of instructor.

Basic concepts of optical radiation interacting with biological materials will be covered. Discussion will be made as to how the unique properties of photons are exploited to understand the biological structure and its function. Photon absorption and emission in biological materials will be considered to explain their applications, including optical imaging as a noninvasive diagnosis tool, photodynamic therapy (PDT), etc.

**4823 Mathematical Physics II**

(3-0) 3 hours credit. Prerequisite: PHY 3823.

Partial differential equations of physics, special functions, introduction to complex analysis, group theory. Applications include topics in classical and quantum mechanics, electrostatics and electrodynamics.

**4911-3 Independent Study**

1 to 3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, the Department Chair, and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree in physics.

**4953 Special Studies in Physics**

(3-0) 3 hours credit. Prerequisite: Consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when the topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree.

**4993 Honors Research**

3 hours credit. Prerequisites: Enrollment limited to candidates for college honors during their last two semesters; approval by the College Honors Committee.

Supervised research and preparation of an honors thesis. May be repeated once with approval.

## **COURSE DESCRIPTIONS**

### **ASTRONOMY**

#### **(AST)**

**1013 Introduction to Astronomy**

(3-0) 3 hours credit. Prerequisite: MTC 1073.

A descriptive course including the development of astronomy, its methods, and the motions, laws, and evolution of the solar system. Topics include general properties and types of stars, unusual stellar objects such as quasars and black holes, galaxies, evolution, and cosmology. Occasional evening viewing sessions are held. May apply toward the Level II Core Curriculum requirement in science. [TCCN: PHYS 1311.]

**1031 Introduction to Astronomy Laboratory**

(1-2) 1 hour credit. Prerequisite: AST 1013, or concurrent enrollment in AST 1013, or consent of instructor.

Exercises in the use of the telescope and certain other astronomical instruments, including simple observations, measurement, and photography. [TCCN: PHYS 1111.]

**1033 Exploration of the Solar System**

(3-0) 3 hours credit, Prerequisite: MTC 1073.

A descriptive course of modern studies of the solar system, including a survey of the properties of the planets and smaller bodies (asteroids and comets) and current theories of the origin of planetary systems. Topics include results from the latest satellite, robotic, and human exploration of space, origin of life in the solar system, existence of other planetary system, possibilities of space colonization, and the search for extraterrestrial life (techniques and possibilities of communication with other intelligences). May apply toward the Level II Core Curriculum requirement in science. [TCCN: PHYS 1312.]

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Photo - Chapter 8: School of Architecture

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## SCHOOL OF ARCHITECTURE

### Bachelor of Science Degree in Architecture

The Bachelor of Science (B.S.) in Architecture is a four-year preprofessional degree. The minimum number of semester credit hours required for the degree, including Core Curriculum requirements, is 132. Students are advised to complete the B. S. in Architecture degree coursework in the order indicated within the “Recommended Curriculum” issued by the School of Architecture for their catalog year.

The Bachelor of Science (B.S.) in Architecture is a program which provides students with the opportunity to prepare for the continuation of studies in a professional graduate program, a Master of Architecture (M. Arch.). Completion of the B. S. in Architecture degree allows the graduate to pursue limited architectural practice but does not, in itself, fully prepare the graduate for architectural licensure. Students in the B.S. in Architecture program are advised that certification for architectural registration and professional practice by the National Council of Architectural Registration Boards (NCARB) requires, in virtually all cases, an accredited professional degree and broad architectural education such as that provided by the Masters in Architecture Program (M. Arch) at UTSA.

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes two types of degrees: the Bachelor of Architecture and the Master of Architecture. A program may be granted a six-year, three-year, or two-year term of accreditation, depending on its degree of conformance with established educational standards.

Master degree programs may consist of a preprofessional undergraduate degree and a professional graduate degree, which, when earned sequentially, comprise an accredited professional education. However, the preprofessional degree is not, by itself, recognized as an accredited degree.

**Transfer Students:** All transfer students are required to submit a bound portfolio (maximum size 11 inches by 17 inches) to the School of Architecture as soon as admittance to the University is approved. Portfolios must be received at the School of Architecture prior to the second week in March for Fall Semester admissions; and prior to the second week in August for Spring Semester admissions. The portfolio must clearly demonstrate creative and communicative skills in written and graphic form. A complete transcript of all professional courses accompanied by the catalog descriptions from the originating institutions must be included. Do not send slides or original work. A postage-paid, self-addressed return envelope must be included for return of the work to the candidate. The portfolio will be reviewed by a faculty committee to determine the student’s placement within the curricular sequence.

**Portfolio Review:** All students in the B. S. in Architecture program are required to complete a portfolio review prior to their entrance into the third year of architectural studies. Without a portfolio submission students will not be allowed to take ANY 3000-level or above courses; therefore, all students are required to submit a bound portfolio (maximum size 11 inches by 17 inches) prior to the second week in March. The portfolio must clearly demonstrate creative and communicative skills in written and graphic form. A Portfolio Review Committee composed of faculty in the School of Architecture will evaluate the portfolio to determine the level of advancement.

**Student Work:** The School of Architecture reserves the right to retain, exhibit, and reproduce work submitted by students. Work submitted for grading is the property of the School and remains such until it is returned to the student.

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Science degree in Architecture must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MAT 1093 Precalculus <b>Science</b> (6 semester credit hours) PHY 1603 General Physics I or PHY 1904 Technical Physics I And one other science course; the following are recommended: ANT 2033 Introduction to Physical Anthropology ANT 2043 Introduction to Archaeology AST 1013 Introduction to Astronomy CHE 1073 Basic Chemistry CHE 1103 General Chemistry I ES 2013 Introduction to Environmental Systems I GEO 1013 The Third Planet GEO 1103 Introduction to Earth Systems GRG 2613 Physical Geography PHY 1623 General Physics II
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) ARC 2413 History of Architecture: Antiquity through Medieval
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) ARC 1413 Architecture and Culture

## Degree Requirements

- A. 6 semester credit hours of mathematics and science (may also be used to satisfy Core Curriculum requirements in Domain I):
- |     |      |                     |
|-----|------|---------------------|
| MAT | 1093 | Precalculus         |
| PHY | 1603 | General Physics I   |
|     |      | or                  |
| PHY | 1904 | Technical Physics I |
- B. 81 semester credit hours in the major passed with a grade of “C” or better in each course (ARC 1413 and ARC 2413 may also be used to satisfy Core Curriculum requirements):
1. 42 semester credit hours of required lower-division architectural courses:
 

ARC	1213	Design I
ARC	1223	Design II
ARC	1313	Visual Communication
ARC	1413	Architecture and Culture
ARC	1423	Architecture and Thought
ARC	2116	Design III
ARC	2126	Design IV
ARC	2213	Construction Materials and Concepts
ARC	2223	Structures I
ARC	2413	History of Architecture: Antiquity through Medieval
ARC	2423	History of Architecture: Renaissance through Nineteenth Century
ARC	2513	Introduction to Digital Design Media
  2. 39 semester credit hours of required upper-division architectural courses:
 

ARC	3216	Architecture Studio I
ARC	3226	Architecture Studio II
ARC	3233	Structures II
ARC	3343	Environmental Systems I
ARC	3353	Environmental Systems II
ARC	3613	History of Modern Architecture
ARC	4246	Architecture Systems Studio
ARC	4256	Architecture Topics Studio
ARC	4513	Professional Practice and Ethics
- C. 15 semester credit hours of electives

It is strongly recommended that the electives should include 6 semester credit hours of foreign language courses.

## COURSE DESCRIPTIONS ARCHITECTURE (ARC)

### 1213 Design I

(1-6) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in ARC 1313.

Introduction to design through a focus on visual literacy and the conceptualization of human environments. Explores the basic design elements of line, form, color, and texture in conjunction with the principles of rhythm, balance, proportion, and scale. Introduction to architectural precedents, architectural ideas, and architectural conventions. (Formerly ARC 1233. Credit cannot be earned for both ARC 1213 and ARC 1233.)

**1223 Design II**

(1-6) 3 hours credit. Prerequisites: ARC 1213 and ARC 1313.

Design as a broadly synthetic process which stresses development through graphical visualization. Projects focus on the concerns of interior spatial qualities and design. Explores the role of color, light, and spatial experience in the development of human environments. Introduction to building typologies, space planning, critical thought pertaining to the built environment, and continued concern with architectural precedents.

**1313 Visual Communication**

(1-6) 3 hours credit.

Exploration of means, methods, and materials used by architects and interior designers in the graphic study of material and spatial conditions. Covers orthographic and isometric projection, section, and perspective through analytical, representational, and transformative drawing techniques. Completion of or concurrent enrollment in this course is required in order to take ARC 1213. [TCCN: ARCH 1307.]

**1413 Architecture and Culture**

(3-0) 3 hours credit.

Introduces architecture by exploring its sources in human culture and behavioral patterns and traces its evolution to the current state of architectural, interior design, and building professions. Examines their relationship to allied professions. [TCCN: ARCH 1305.]

**1423 Architecture and Thought**

(3-0) 3 hours credit.

Introduction to the relationship between the built environment and human thought. Examines the structure of thought and the ideas that give shape to built form. Readings are drawn from literature, philosophy, and architectural theories of different cultures and historical periods. [TCCN: ARCH 1311.]

**2116 Design III**

(2-12) 6 hours credit. Prerequisite: ARC 1223.

Architectural and Interior Design with a focus on both process and analysis. Projects are located in nonurban contexts with special consideration given to building to site integration, topography, spatial experience, spatial relationships, programming, and overall organizational concepts. (Formerly ARC 2113. Credit cannot be earned for both ARC 2116 and ARC 2113.)

**2126 Design IV**

(2-12) 6 hours credit. Prerequisites: ARC 2116, and concurrent enrollment in ARC 2513 and ARC 2223 or IDE 2143.

Architectural and Interior Design with a focus on full design synthesis. Focus on urban projects with consideration given to historical precedents, urban contextual response, architectural theory, and architectural order. Introduction to the role of fire and life safety concerns, building codes, ADA accessibility, and zoning regulations as formative in design. (Formerly ARC 2123. Credit cannot be earned for both ARC 2126 and ARC 2123.)

**2213 Construction Materials and Concepts**

(3-0) 3 hours credit. Prerequisite: ARC 1223 or enrollment as a major in construction management.

Concepts and skills fundamental to structure, construction, building enclosure, and interior environments. Analysis and selection of materials, components, and assemblies. Introduction to the historical role of materials in architectural and interior design. Completion of or concurrent enrollment in this course is required in order to take ARC 2223. Concurrent enrollment in ARC 2116 is recommended for ARC and IDE majors.

**2223 Structures I**

(3-0) 3 hours credit. Prerequisites: Completion of or concurrent enrollment in ARC 2126, ARC 2213, MAT 1093, and either PHY 1603 or PHY 1904.

Introduction to architectural structures and the principles and systems of structural materials. Course considers the spatial, structural, and aesthetic qualities possible in the articulation of structure through architectural design.

- 2233 Construction Materials and Sustainable Technology**  
(3-0) 3 hours credit. Prerequisite: ARC 2213.  
Continuation of ARC 2213 further considering material selection, assembly, and the sequencing of building construction. Exploration of the techniques and technology of sustainable design, including material selection, process, and theory.
- 2413 History of Architecture: Antiquity through Medieval**  
(3-0) 3 hours credit.  
Introduction to the history of architecture, urbanism, and material culture from prehistory to the 15th century. Explores the varied ways in which architecture reflects and shapes social, religious, and political concerns in the Western and non-Western world. Concurrent enrollment in ARC 2116 is recommended for ARC & IDE majors [TCCN: ARCH 1301.]
- 2423 History of Architecture: Renaissance through Nineteenth Century**  
(3-0) 3 hours credit.  
Introduction to the history of architecture, urbanism, and material culture from the 15th to the 20th century. Explores the varied ways in which architecture reflects and shapes social, religious, and political concerns in the Western and non-Western world. Concurrent enrollment in ARC 2126 is recommended for ARC & IDE majors. [TCCN: ARCH 1302.]
- 2433 History of Building Technology**  
(3-0) 3 hours credit.  
Survey of the history of building technology to the present time.
- 2513 Introduction to Digital Design Media**  
(2-2) 3 hours credit. Prerequisites: Concurrent enrollment in ARC 2126 and ARC 2223 or IDE 2143.  
Introduction to 2-dimensional image processing, as well as 3-dimensional and 4-dimensional digital design media. Addresses design skills, principles, techniques, procedures, and knowledge of how digital media impacts the design process, profession, and design culture.
- 3113 Presentation Graphics**  
(1-6) 3 hours credit. Prerequisites: ARC 1223 and ARC 1313.  
Principles and techniques of composition for presentation graphics. Exercises in architectural rendering in various media.
- 3203 Housing Design and Development**  
(3-0) 3 hours credit. Prerequisite: ARC 2126 or enrollment as a major in building development.  
Evolution of housing design and development with emphasis on site and market analyses, zoning, codes, and infrastructure issues.
- 3216 Architecture Studio I**  
(2-12) 6 hours credit. Prerequisites: ARC 2126, ARC 2223, ARC 2413, ARC 2423, and completion of or concurrent enrollment in ARC 3233.  
Architectural design as the application of building technology and materials as key components in the art of architecture. Examines methods for analyzing and developing the tectonics of an architectural assembly and the principles of structure and its material construction. Projects consider the urban fabric as context and site for architectural investigation.
- 3226 Architecture Studio II**  
(2-12) 6 hours credit. Prerequisite: ARC 3216.  
Architectural design focused on environmental control systems and their integration into projects that range in scale and scope. Covers programming skills through a consideration of the relationship between human activities and architectural environments. Projects consider both urban and nonurban settings with a focus on critical response to their respective setting.

**3233 Structures II**

(3-0) 3 hours credit. Prerequisites: ARC 2126 and ARC 2223.

Continued introduction to architectural structures which considers the physical principles that govern classical statics and strengths of materials. Graphical and mathematical design of structural systems. Consideration of the role of structural articulation in the creation of built environments. Completion of this course is required in order to take ARC 4246.

**3343 Environmental Systems I**

(3-0) 3 hours credit. Prerequisites: ARC 2126 and ARC 2213.

Environmentally responsive design of buildings and the natural and artificial systems that support them, including heating, ventilation and cooling, water and waste, and solid waste management. (Formerly ARC 3323. Credit cannot be earned for both ARC 3343 and ARC 3323.)

**3353 Environmental Systems II**

(3-0) 3 hours credit. Prerequisite: ARC 3343.

Light and sound as building form determinants and the natural and artificial systems that support them, including illumination, electrical design, and acoustics. (Formerly ARC 3313. Credit cannot be earned for both ARC 3353 and ARC 3313.)

**3613 History of Modern Architecture**

(3-0) 3 hours credit.

Study of the social, aesthetic, theoretical, technical, cultural, and professional forces that form, shape, and communicate modern architecture. Completion of ARC 2413 and ARC 2423 is recommended for ARC and IDE majors.

**4013 Building Construction Estimating I**

(3-0) 3 hours credit. Prerequisites: ARC 2126 or enrollment as a major in construction management; ARC 2213.

Introduction to estimating procedures related to quantity surveying, cost of materials and labor, and life-cycle costs.

**4023 Building Construction Estimating II**

(3-0) 3 hours credit. Prerequisite: ARC 4013.

Continuation of ARC 4013 with emphasis on pricing work, subcontracting, and bidding strategies. Review of major cost-estimating software.

**4113 Project Development**

(3-0) 3 hours credit. Prerequisite: ARC 3203 for construction management majors or consent of instructor.

The application of building/development practices to architectural and planning projects.

**4143 Architecture Topics**

(3-0) 3 hours credit. Prerequisite: ARC 2126 or consent of instructor.

A study of current trends and issues in architecture. May be repeated for credit when topics vary, but no more than 9 semester credit hours will apply to a bachelor's degree.

**4153 Topics in International Architecture**

(3-0) 3 hours credit. Prerequisite: ARC 2126 or consent of instructor.

An examination of current international trends and issues in architecture and interior design. May be repeated once for credit when topics vary.

**4223 Topics in Design Computing**

(2-2) 3 hours credit. Prerequisite: ARC 2513 or consent of instructor.

Theory-based seminar course exploring critical, spatial and philosophical issues relative to the impact of digital technologies within the field of architecture. Involves some usage of 2D and 3D digital media.

- 4233 Computer Projects in Design**  
(2-2) 3 hours credit. Prerequisite: ARC 2513 or consent of instructor.  
Project-driven lecture/lab course exploring advanced issues associated with 3D modeling, animation, photo-realistic visualization, and computer-aided manufacturing. Considers the role these processes play in architectural and interior design. (Same as IDE 4233. Credit cannot be earned for both ARC 4233 and IDE 4233.)
- 4246 Architecture Systems Studio**  
(2-12) 6 hours credit. Prerequisites: ARC 3226, ARC 3233, and ARC 3353.  
Advanced architectural design with a focus on the interrelationship of the systems responsible for the full development of architectural environments. Includes theoretical and design consideration of systems of architectural order including natural, structural, mechanical, movement, enclosure, and assembly at multiple scales. Requires recognition of life safety issues, ADA accessibility, zoning regulations, and a conformance to building codes.
- 4256 Architecture Topics Studio**  
(2-12) 6 hours credit. Prerequisites: ARC 3226, ARC 3233, and ARC 3353 or consent of instructor.  
Topics-based exploration and application of advanced design theory relative to architecture and urban design. Covers design philosophy, programming, transformation processes, and design development.
- 4313 Construction Graphics**  
(1-4) 3 hours credit. Prerequisites: ARC 3226 or 3246; ARC 3233 (for architecture majors); ARC 3353.  
A study in the preparation of construction documents and their use in communication of design concepts among the designer, owner, contractor, and others. Students will be required to prepare detailed construction documents.
- 4333 Practicum**  
3 hours credit. Prerequisites: ARC 3226; ARC 3246 or enrollment as a major in construction management. Must have consent of instructor.  
Offers students majoring in architecture, interior design, and construction management participation in a variety of design, development, and construction concerns. Students work under supervision 15 to 20 hours a week in an approved internship to gain knowledge of their respective professional fields. (Formerly ARC 3333. Credit cannot be earned for both ARC 4333 and ARC 3333.)
- 4423 History and Theory of Urban Form**  
(3-0) 3 hours credit. Prerequisites: ARC 2126, ARC 2413, and ARC 2423.  
Concentrates on the origins of the contemporary city, its current condition, and emerging theories of urban design.
- 4513 Professional Practice and Ethics**  
(3-0) 3 hours credit. Prerequisite: ARC 2126.  
A study of the currently applied ethical, legal, and professional criteria for the practice of architecture and allied professions. Forms of practice, client relationships, interior design, team leadership, office organization, and project management including initiation, acquisition, agreements, and management.
- 4613 Construction Management I**  
(3-0) 3 hours credit. Prerequisite: ARC 2126 or enrollment as a major in construction management.  
The study of the management of the construction process and its integration with allied professions.
- 4623 Construction Management II**  
(3-0) 3 hours credit. Prerequisite: ARC 4613.  
Continuation of ARC 4613 with emphasis on scheduling and project delivery methods.
- 4911,3,6 Independent Study**  
1, 3, or 6 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, the Department Chair, and the Dean of the College in which the course is offered.  
Scholarly research under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, may apply to a bachelor's degree.

**4953,6 Special Studies in Architecture**

(1-6) 3 hours credit, (2-12) 6 hours credit. Prerequisite: Consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when the topics vary, but not more than 6 semester credit hours for ARC 4953 or 12 hours for ARC 4956, regardless of discipline, will apply to a bachelor's degree.

**Bachelor of Science Degree in Interior Design**

The Bachelor of Science (B. S.) in Interior Design is a four-year FIDER accredited professional degree. The minimum number of semester credit hours required for the degree, including Core Curriculum requirements, is 132. Students are advised to complete the B. S. in Interior Design degree coursework in the order indicated within the "Recommended Curriculum" issued by the School of Architecture for their catalog year.

**Transfer Students:** All transfer students are required to submit a bound portfolio (maximum size 11 inches by 17 inches) to the School of Architecture as soon as admittance to the University is approved. Portfolios must be received at the School of Architecture prior to the second week in March for Fall Semester admissions; and prior to the second week in August for Spring Semester admissions. The portfolio must clearly demonstrate creative and communicative skills in written and graphic form. A complete transcript of all professional courses accompanied by the catalog descriptions from the originating institutions must be included. Do not send slides or original work. A postage-paid, self-addressed return envelope must be included for return of the work to the candidate. The portfolio will be reviewed by a faculty committee to determine the student's placement within the curricular sequence.

**Portfolio Review:** All students in the B. S. in Interior Design program are required to complete a portfolio review prior to their entrance into the third year of interior design studies. Without a portfolio submission students will not be allowed to take **ANY** 3000-level or above courses; therefore, all students are required to submit a bound portfolio (maximum size 11 inches by 17 inches) prior to the second week in March. The portfolio must clearly demonstrate creative and communicative skills in written and graphic form. A Portfolio Review Committee composed of faculty in the School of Architecture will evaluate the portfolio to determine the level of advancement.

**Student Work:** The School of Architecture reserves the right to retain, exhibit, and reproduce work submitted by students. Work submitted for grading is the property of the School and remains such until it is returned to the student.

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

**Core Curriculum requirements:** Students seeking the Bachelor of Science degree in Interior Design must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II

<b>Domain I: Mathematics and Science</b>	<p><b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.</p>
<b>Domain II: Society and Culture</b>	<p><b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b>The Arts</b> (3 semester credit hours) ARC 2413 History of Architecture: Antiquity through Medieval</p>
<b>Domain IV: World Society and Issues</b>	<p>(3 semester credit hours) ARC 1413 Architecture and Culture</p>

### Degree Requirements

- A. 93 semester credit hours in the major passed with a grade of “C” or better in each course (ARC 1413 and ARC 2413 may also be used to satisfy Core Curriculum requirements):
1. 39 semester credit hours of required lower-division architecture and interior design courses:
    - ARC 1213 Design I
    - ARC 1223 Design II
    - ARC 1313 Visual Communication
    - ARC 1413 Architecture and Culture
    - ARC 2116 Design III
    - ARC 2126 Design IV
    - ARC 2213 Construction Materials and Concepts
    - ARC 2413 History of Architecture: Antiquity through Medieval
    - ARC 2423 History of Architecture: Renaissance through Nineteenth Century
    - ARC 2513 Introduction to Digital Design Media
    - IDE 2143 Interior Materials and Assemblies I
  2. 54 semester credit hours of required upper-division architecture and interior design courses:
    - ARC 3343 Environmental Systems I
    - ARC 3353 Environmental Systems II
    - ARC 3613 History of Modern Architecture

ARC	4513	Professional Practice and Ethics
IDE	3153	Interior Materials and Assemblies II
IDE	3213	History of Interiors and Furniture I
IDE	3223	History of Interiors and Furniture II
IDE	4133	Interior Design Topics
IDE	4233	Computer Projects in Design
IDE	3236	Interior Design Studio I
IDE	3246	Interior Design Studio II
IDE	4203	Interior Design Details and Construction Graphics
IDE	4266	Interior Design Systems Studio
IDE	4276	Interior Design Topics Studio

B. 3 semester credit hours of electives

It is strongly recommended that the electives should include a foreign language course.

## COURSE DESCRIPTIONS INTERIOR DESIGN (IDE)

**2143 Interior Materials and Assemblies I**

(3-0) 3 hours credit. Prerequisite: ARC 2213.

Study of materials and sustainable products used in interior spaces and their specification, installation, maintenance, and performance. (Formerly ARC 3143. Credit cannot be earned for both IDE 2143 and ARC 3143.)

**3013 Color and Light**

(3-0) 3 hours credit. Prerequisite: ARC 2126.

Studies of psychological and physiological effects of color and light in the built environment. Light as a form determinant of interior space. Introduction to artificial illumination design. (Formerly ARC 3013. Credit cannot be earned for both IDE 3013 and ARC 3013.)

**3153 Interior Materials and Assemblies II**

(3-0) 3 hours credit. Prerequisite: IDE 2143.

Continued study of materials used in interior spaces with an emphasis on textiles, furniture systems, and specifications. (Formerly ARC 3153. Credit cannot be earned for both IDE 3153 and ARC 3153.)

**3213 History of Interiors and Furniture I**

(3-0) 3 hours credit. Prerequisites: ARC 2413 and ARC 2423.

Survey of social, aesthetic, technical, cultural, and professional forces that historically have influenced the use of interior space and furniture design in different cultures from prehistory through 1650. (Formerly ARC 3213. Credit cannot be earned for both IDE 3213 and ARC 3213.)

**3223 History of Interiors and Furniture II**

(3-0) 3 hours credit. Prerequisites: ARC 2413, ARC 2423, ARC 3613, and IDE 3213.

Survey of social, aesthetic, technical, cultural, and professional forces that historically have influenced the use of interior space and furniture design in different cultures from 1650 through the present. (Formerly ARC 3223. Credit cannot be earned for both IDE 3223 and ARC 3223.)

**3236 Interior Design Studio I**

(2-12) 6 hours credit. Prerequisites: ARC 2126, ARC 2423, ARC 2513, and IDE 2143.

Interior design as the application of building construction systems and materials as key components in the art of shaping interior volumes. Project research and programming methods are applied and furniture selections are explored and integrated within a spatial context. (Formerly ARC 3236. Credit cannot be earned for both IDE 3236 and ARC 3236.)

- 3246 Interior Design Studio II**  
(2-12) 6 hours credit. Prerequisite: IDE 3236.  
Interior design focused on integrating mechanical, acoustical, and lighting systems through a consideration of the relationship between human activities and various interior environments. (Formerly ARC 3246. Credit cannot be earned for both IDE 3246 and ARC 3246.)
- 4133 Interior Design Topics**  
(3-0) 3 hours credit. Prerequisite: ARC 2126 or consent of instructor.  
Study of current trends and issues in interior design. May be repeated for credit when topics vary, but no more than 9 semester credit hours will apply toward a bachelor's degree. (Formerly ARC 4133. Credit cannot be earned for both IDE 4133 and ARC 4133.)
- 4203 Interior Design Details and Construction Graphics**  
(3-0) 3 hours credit. Prerequisites: IDE 2143 and IDE 3153.  
Project-driven lecture studio course focusing on design and documentation of interior construction. (Formerly ARC 4203. Credit cannot be earned for both IDE 4203 and ARC 4203.)
- 4213 Furniture Design and Construction**  
(1-4) 3 hours credit. Prerequisite: Junior standing.  
Focuses on the essential qualities of the elements of furniture design and construction, emphasizing human factors and the use of materials and connections.
- 4233 Computer Projects in Design**  
(2-2) 3 hours credit. Prerequisite: ARC 2513 or consent of instructor.  
Project-driven lecture/laboratory course exploring advanced issues associated with 3D modeling, animation, photo-realistic visualization, and computer-aided manufacturing. Considers the role these processes play in interior design. (Same as ARC 4233. Credit cannot be earned for both IDE 4233 and ARC 4233.)
- 4266 Interior Design Systems Studio**  
(2-12) 6 hours credit. Prerequisites: ARC 3353, IDE 3153, IDE 3246, and IDE 4203.  
Comprehensive design and documentation to include integration and articulation of building assemblies, life safety issues, environmental, and furniture systems. (Formerly ARC 4266. Credit cannot be earned for both IDE 4266 and ARC 4266.)
- 4276 Interior Design Topics Studio**  
(2-12) 6 hours credit. Prerequisites: ARC 3353, IDE 3153, IDE 3246, and IDE 4203 or consent of instructor.  
Topics-based exploration and application of advanced design theory relative to interior design. Covers design philosophy, programming, transformation processes, and design development. (Formerly ARC 4276. Credit cannot be earned for both IDE 4276 and ARC 4276.)
- 4911,3,6 Independent Study**  
1, 3, or 6 hours credit. Permission in writing (form available) of the instructor, the student's advisor, the Department Chair, and the Dean of the College in which the course is offered.  
Scholarly research under the direction of the faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, may apply to a bachelor's degree.
- 4953,6 Special Studies in Interior Design**  
(1-6) 3 hours credit, (2-12) 6 hours credit. Prerequisite: Consent of instructor.  
An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours for IDE 4953 or 12 hours for IDE 4956, regardless of discipline, will apply to a bachelor's degree.

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Photo – Chapter 9: Bachelor of Applied Arts and Sciences

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\*The Bachelor of Applied Arts and Sciences degree is available to all students at both the 1604 Campus and the Downtown Campus.

## **BACHELOR OF APPLIED ARTS AND SCIENCES**

The University of Texas at San Antonio offers a Bachelor of Applied Arts and Sciences (B.A.A.S.) degree for all students who have graduated from a regionally-accredited, two-year college with an Associate of Applied Sciences (A.A.S.) degree in one of various technical areas. The degree program has a high standard of quality and a structure of courses that will build on the students' initial two years of higher education to earn a baccalaureate degree. Students seeking a B.A.A.S. degree will be able to pursue professional programs in several different colleges at UTSA at both the 1604 and the Downtown Campus. These programs include:

### COLLEGE OF BUSINESS

- Accounting
- Construction Management
- Finance
- Information Systems
- Tourism Management

### COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT

- Bicultural/Mexican American Studies
- Family and Community
- Language and Literacy

### COLLEGE OF PUBLIC POLICY

- Criminal Justice

The B.A.A.S. degree is administered through the Office of the Vice Provost–UTSA Downtown. All prospective B.A.A.S. student inquiries should be made to the B.A.A.S. advisor located at the Downtown Campus. The program is designed for students who earned an Associate of Applied Sciences degree from a regionally-accredited, two-year college. If the A.A.S. degree does not cover related background coursework for the B.A.A.S., students will be required to take leveling or prerequisite coursework determined in consultation with the B.A.A.S. advisor. Students may transfer up to 66 semester credit hours from a two-year college to UTSA. However, vocational-technical coursework will only apply to the Bachelor of Applied Arts and Sciences degree.

The minimum number of hours required for the degree is 128. Requirements include:

1. 36 semester credit hours in an organized technical program completed at a two-year college
2. 39 semester credit hours of upper-division coursework to include 24 semester credit hours in a focused program of study and 15 semester credit hours in upper-division coursework
3. 42 semester credit hours of Core Curriculum courses
4. 3 semester credit hours of course, IDS 2713 Modes of Inquiry Across the Fields of Study
5. Sufficient elective courses to reach the minimum of 128 semester credit hours.

The Bachelor of Applied Arts and Sciences in Bicultural/Mexican American Studies, Family and Community, and Language and Literacy is awarded to students transferring into the degree programs with approved A.A.S. degrees as prerequisite. The degrees represent advanced academic education, which augments and advances prior applied and technical training. Although there may be some similarity between these degrees and other academic offerings, they are in actuality different programs of study. As such, none of the above listed B.A.A.S degree programs lead directly to teacher certification (though these students would be eligible for post baccalaureate certification programs). Students interested in teacher certification should consult an advisor in the College of Education and Human Development.

This degree program is not available to students who have not already completed an approved A.A.S.

## Bachelor of Applied Arts and Sciences in Accounting

The minimum number of semester credit hours for the Bachelor of Applied Arts and Sciences degree in Accounting is 128.

**Core Curriculum requirements:** Students seeking the Bachelor of Applied Arts and Sciences degree in Accounting must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements, see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MTC 1033 Algebra with Calculus for Business <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) ECO 2013 Introductory Macroeconomics
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

### Degree Requirements

- A. 36 semester credit hours in an organized technical program completed at a two-year college
- B. 42 semester credit hours of Core Curriculum courses (see table above)

## C. 18 semester credit hours of accounting courses in the major

ACC	3023	Intermediate Accounting I
ACC	3033	Intermediate Accounting II
ACC	3043	Federal Income Taxation I
ACC	3113	Accounting Information Systems I
ACC	3123	Cost Analysis
ACC	4013	Principles of Auditing

## D. 6 semester credit hours of upper-division courses in accounting of which no more than 3 semester credit hours may be satisfied by completing ACC 4933, Internship in Accounting

## E. 15 semester credit hours of upper-division courses

IS	3003	Principles of Information Systems for Management
MGT	3003	Business Communication and Professional Development
MGT	3013	Introduction to Organization Theory, Behavior, and Management
MKT	3013	Principles of Marketing
MS	3033	Management Science and Production Management

## F. 3 semester credit hours

IDS	2713	Modes of Inquiry Across the Fields of Study
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## G. Sufficient elective courses to reach a minimum of 128 semester credit hours

Candidates for the Certified Public Accountant (CPA) examination should refer to “Notes for students who intend to take the CPA examination” under the requirements for the Bachelor of Business Administration degree in Accounting on page 32.

For course descriptions, refer to the Bachelor of Business Administration in Accounting.

## Bachelor of Applied Arts and Sciences in Bicultural/Mexican American Studies

The Bachelor of Applied Arts and Sciences in Bicultural/Mexican American Studies offers two areas of concentration: Bicultural-Bilingual and Mexican American Studies. The minimum number of semester credit hours required for this degree is 128, including Core Curriculum requirement hours. Thirty-nine of the 128 total semester credit hours required for the degree must be at the upper-division level.

### Bicultural-Bilingual Concentration

**Core Curriculum requirements:** Students seeking the Bachelor of Applied Arts and Sciences degree in Bicultural/Mexican American Studies with a Bicultural-Bilingual Concentration must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements, see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

**Degree requirements**

- A. 36 semester credit hours in an organized technical program completed at a two-year college
- B. 42 semester credit hours of Core Curriculum courses (see table above)
- C. 30 semester credit hours of required coursework in the major:
- BBL 2243 Bilingual Families, Communities, and Schools
- BBL 3013 Language Analysis and Bilingualism  
or
- ESL 3053 Literacy in a Second Language
- BBL 3023 Mexican American Culture
- BBL 3033 The Mexican American in the Southwest
- BBL 3043 Psychosocial Processes in Bicultural-Bilingual Environments
- BBL 3053 Foundations of Bilingual Studies
- BBL 3133 Language Development in Bilinguals
- BBL 3143 Children's Literature for Bilingual Learners
- BBL 4033 Assessment, Learning, and Motivation in Bicultural-Bilingual Classrooms
- ESL 3023 Second Language Teaching and Learning in EC-4
- D. 9 additional semester credit hours of approved BBL/ESL upper-division coursework
- E. 3 semester credit hours:
- IDS 2713 Modes of Inquiry Across the Fields of Study
- F. Sufficient elective courses to reach a minimum of 128 semester credit hours

**Mexican American Studies Concentration**

**Core Curriculum requirements:** Students seeking the Bachelor of Applied Arts and Sciences degree in Bicultural/Mexican American Studies with a Mexican American Studies Concentration must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements, see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.

<b>Domain II: Society and Culture</b>	<p><b><i>United States History and Diversity</i></b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Political Studies</i></b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Social and Behavioral Sciences</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>Economics</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain III: Literature and the Arts</b>	<p><b><i>Literature</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p> <p><b><i>The Arts</i></b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</p>
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

**Degree Requirements**

- A. 36 semester credit hours in an organized technical program completed at a two-year college
- B. 42 semester credit hours of Core Curriculum courses (see table above)
- C. 39 semester credit hours of required coursework in the major:

BBL	2003	Language, Culture, and Society
		or
BBL	3133	Language Development in Bilinguals
BBL	2013	Introduction to Chicano(a) Studies
BBL	2023	Latino Cultural Expressions
BBL	3033	The Mexican American in the Southwest
		or
HIS	3443	Latinos in the United States
BBL	3043	Psychosocial Processes in Bicultural-Bilingual Environments
BBL	3053	Foundations of Bilingual Studies
BBL	4033	Assessment, Learning, and Motivation in Bicultural-Bilingual Classrooms
BBL	4083	Research Seminar in Mexican American Studies
ESL	3023	Second Language Teaching and Learning in EC-4
SOC	3413	Mexican American Family
SOC	3503	Sociology of Education
SOC	3513	Children and Society
SPN	3493	Mexican American Literature
		or
ENG	3513	Mexican American Literature

D. 3 semester credit hours:

IDS 2713 Modes of Inquiry Across the Fields of Study

E. Sufficient elective courses to reach a minimum of 128 semester credit hours

For course descriptions, refer to the Division of Bicultural-Bilingual Studies.

## Bachelor of Applied Arts and Sciences in Construction Management

The minimum number of semester credit hours for the Bachelor of Applied Arts and Sciences degree in Construction Management is 128.

**Core Curriculum requirements:** Students seeking the Bachelor of Applied Arts and Sciences degree in Construction Management must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements, see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MTC 1033 Algebra with Calculus for Business <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) ECO 2013 Introductory Macroeconomics
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

**Degree Requirements**

- A. 36 semester credit hours in an organized technical program completed at a two-year college
- B. 42 semester credit hours of Core Curriculum courses (see table above)
- C. 39 semester credit hours of upper-division coursework in the major:
1. 9 semester credit hours of Common Body of Knowledge courses:
 

FIN	3013	Principles of Business Finance
MKT	3013	Principles of Marketing
MS	3313	Statistical Applications in Business
  2. 15 semester credit courses of upper-division courses:
 

ARC	3203	Housing Design and Development
ARC	4613	Construction Management I
BLW	3523	Real Estate Law
FIN	3433	Principles of Real Estate
FIN	4713	Mortgage Banking and Real Estate Finance
  3. 12 semester credit hours of upper-division support work:
 

ARC	4013	Building Construction Estimating I
ARC	4113	Project Development
FIN	4723	Real Estate Investment
FIN	4903	Internship in Construction Management
  4. 3 semester credit hours of upper-division electives
- D. 3 semester credit hours:
- |     |      |   |
|-----|------|---|
| IDS | 2713 | Modes of Inquiry Across the Fields of Study |
|-----|------|---|
- E. Sufficient elective courses to reach a minimum of 128 semester credit hours. These elective courses must include:
- |     |      |                                     |
|-----|------|-------------------------------------|
| ACC | 2013 | Principles of Accounting I          |
| ACC | 2033 | Principles of Accounting II         |
| ARC | 2213 | Construction Materials and Concepts |
| ECO | 2023 | Introductory Microeconomics         |

## Bachelor of Applied Arts and Sciences in Criminal Justice

The minimum number of semester credit hours for the Bachelor of Applied Arts and Sciences degree in Criminal Justice is 128.

**Core Curriculum requirements:** Students seeking the Bachelor of Applied Arts and Sciences degree in Criminal Justice must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements, see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

**Degree Requirements**

- A. 36 semester credit hours in an organized technical program completed at a two-year college
- B. 42 semester credit hours of Core Curriculum courses (see table above)
- C. 9 semester credit hours of criminal justice courses (*For students whose associate degree is not in Criminal Justice. Students whose associate degree is in Criminal Justice should go to Item D.*)

6 semester credit hours:

CRJ	1113	The American Criminal Justice System
CRJ	2153	Nature of Crime and Justice

3 semester credit hours from the following:

CRJ	2213	Introduction to Policing
CRJ	2513	Corrections: Theory and Practice
CRJ	2813	Introduction to Courts and the Legal System

- D. 9 semester credit hours:

CRJ	3013	Design and Analysis in Criminal Justice
CRJ	3213	Managing Criminal Justice Organizations
CRJ	3313	Critical Thinking Applications to Criminal Justice

- E. 15 semester credit hours of upper-division criminal justice electives, chosen from the following:

CRJ	3323	Law of Economic Crime
CRJ	3233	Introduction to Forensic Science
CRJ	3413	Cybercrimes and the Law
CRJ	3423	Technology in Criminal Justice
CRJ	3533	Probation, Parole, and Intermediate Sanctions
CRJ	3563	Juvenile Justice
CRJ	3573	Restorative Justice
CRJ	3613	Legal Research and Writing
CRJ	3623	Substantive Criminal Law
CRJ	3633	Trial and Evidence
CRJ	3713	Ethics in Criminal Justice Practice
CRJ	4113	Intimate and Family Violence
CRJ	4123	Concepts of Investigation
CRJ	4143	Legal Issues in Forensic Science
CRJ	4253	Legal Advocacy
CRJ	4303	Victims and the Justice System
CRJ	4313	Minorities and Women in the Criminal Justice System
CRJ	4323	Forensic Accounting
CRJ	4413	Contemporary Police Practices
CRJ	4453	Drugs, Drug Laws, and Crime
CRJ	4613	Supervising the Correctional Client
CRJ	4633	Constitutional Criminal Procedure
CRJ	4643	Organized Crime
CRJ	4653	White Collar Crime
CRJ	4663	Special Topics in Corrections and Juvenile Justice
CRJ	4723	The Media and Criminal Justice

CRJ	4743	Crime in Fiction
CRJ	4833	Violent Crime
CRJ	4853	Sex Crimes and the Law
CRJ	4863	Special Topics in Legal Issues and Adjudication
CRJ	4913	Independent Study
CRJ	4933	Internship in Criminal Justice
CRJ	4953	Special Studies in Criminal Justice

F. 15 semester credit hours in upper-division coursework chosen from a list of courses provided by the Department of Criminal Justice or the B.A.A.S. undergraduate advisor.

G. 3 semester credit hours:

IDS	2713	Modes of Inquiry Across the Fields of Study
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H. Sufficient elective courses to reach a minimum of 128 semester credit hours

For course descriptions, refer to the Bachelor of Arts degree in Criminal Justice.

## Bachelor of Applied Arts and Sciences in Family and Community

The Bachelor of Applied Arts and Sciences in Family and Community emphasizes the study of Family and Community. The minimum number of semester credit hours for the Bachelor of Applied Arts and Sciences degree in Family and Community is 128, including Core Curriculum requirement hours. Thirty-nine of the 128 semester credit hours required for the degree must be at the upper-division level.

**Core Curriculum requirements:** Students seeking the Bachelor of Applied Arts and Sciences degree in Family and Community must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements, see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

## Degree Requirements

A. 36 semester credit hours in an organized technical program completed at a two-year college

B. 42 semester credit hours of Core Curriculum courses (see table above)

C. 42 semester credit hours of required coursework:

SOC	1013	Introduction to the Study of Society
SOC	3043	Race and Ethnic Relations
SOC	3073	Migration Dynamics
		or
SOC	3433	Mexican Immigration and U.S. Society
		or
SOC	3533	Border and Transnational Relations
SOC	3133	Sociology of Pluralism in the Southwest
SOC	3163	Marriage and the Family
		or
SOC	3413	Mexican American Family
SOC	3253	The Individual and Society
SOC	3283	Poverty
SOC	3263	Latinas in U.S. Society
		or
SOC	3293	Gender Roles
SOC	3373	Qualitative Research Methods
SOC	3383	Sociology of the African American Community
SOC	3403	Mexican American Stratification
SOC	3503	Sociology of Education
SOC	3513	Children and Society
SOC	3523	Language and Society

D. 3 semester credit hours:

IDS	2713	Modes of Inquiry Across the Fields of Study
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E. Sufficient elective courses to reach a minimum of 128 semester credit hours

## Bachelor of Applied Arts and Sciences in Finance

The minimum number of semester credit hours for the Bachelor of Applied Arts and Sciences degree in Finance is 128.

**Core Curriculum requirements:** Students seeking the Bachelor of Applied Arts and Sciences degree in Finance must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements, see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MTC 1033 Algebra with Calculus for Business <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) ECO 2013 Introductory Macroeconomics
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

## Degree Requirements

- A. 36 semester credit hours in an organized technical program completed at a two-year college
- B. 42 semester credit hours of Core Curriculum courses (see table above)
- C. 39 semester credit hours of upper-division coursework in the major:
  - 1. 12 semester credit hours in Finance:

FIN	3013	Principles of Business Finance
FIN	3023	Intermediate Corporate Finance
FIN	3033	Principles of Investment
FIN	3313	Money and Banking
  - 2. 9 semester credit hours of upper-division support work:

ACC	3023	Intermediate Accounting I
MS	3033	Management Science and Production Management
MS	3313	Statistical Applications in Business
  - 3. 12 semester credit hours of upper-division Finance electives. FIN 4783, Computer Modeling of Financial Applications, is recommended as one of these electives. FIN 3003, Survey of Finance, cannot be counted toward meeting this requirement.
  - 4. 6 semester credit hours of upper-division electives
- D. 3 semester credit hours:

IDS	2713	Modes of Inquiry Across the Fields of Study
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- E. Sufficient elective courses to reach a minimum of 128 semester credit hours. These elective courses must include:

ACC	2013	Principles of Accounting I
ACC	2033	Principles of Accounting II
ECO	2023	Introductory Microeconomics

## Bachelor of Applied Arts and Sciences in Information Systems

The minimum number of semester credit hours for the Bachelor of Applied Arts and Sciences degree in Information Systems is 129.

**Core Curriculum requirements:** Students seeking the Bachelor of Applied Arts and Sciences degree in Information Systems must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements, see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MTC 1033 Algebra with Calculus for Business <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) ECO 2013 Introductory Macroeconomics
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

## Degree Requirements

- A. 36 semester credit hours in an organized technical program completed at a two-year college
- B. 42 semester credit hours of Core Curriculum courses (see table above)
- C. 30 semester hours of upper-division information systems coursework chosen from the following:

IS	3063	Database Management for Information Systems
IS	3073	Application Development
IS	3083	Computer Graphics
IS	3413	Introduction to Telecommunication for Business
IS	3423	Secure Network Design
IS	3513	Information Assurance and Security
IS	4053	Analysis and Design of Information Systems
IS	4063	Advanced Topics in Information Systems
IS	4143	Wide Area Networks
IS	4153	Electronic Commerce
IS	4163	Advanced Programming Concepts
IS	4183	Advanced Database Concepts
IS	4203	Business Process Re-engineering
IS	4463	Secure Electronic Commerce
IS	4473	Information Assurance Policy

- D. 18 semester credit hours of common body of knowledge courses:

ACC	2013	Principles of Accounting I
ACC	2023	Principles of Accounting II
ECO	2023	Introductory Microeconomics
MGT	3003	Business Communication and Professional Development
MGT	3013	Introduction to Organization Theory, Behavior, and Management
MS	1013	Quantitative Methods for Business and Economics

- E. 3 semester credit hour upper-division elective.

- F. 3 semester credit hours of electives:

IDS	2713	Modes of Inquiry Across the Fields of Study
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For course descriptions, refer to the Bachelor of Business Administration degree in Information Systems.

## Bachelor of Applied Arts and Sciences in Language and Literacy

The Bachelor of Applied Arts and Sciences (B.A.A.S) in Language and Literacy emphasizes the study of Reading and Early Childhood Education. The minimum number of semester credit hours for the B.A.A.S. degree in Language and Literacy is 128, including Core Curriculum requirement hours. Thirty-nine of the 128 total semester credit hours required for the degree must be at the upper-division level.

**Core Curriculum requirements:** Students seeking the Bachelor of Applied Arts and Sciences degree in Language and Literacy must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements, see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

## Degree Requirements

- A. 36 semester credit hours in an organized technical program completed at a two-year college
- B. 42 semester credit hours of Core Curriculum courses (see table above)
- C. 39 semester credit hours of required coursework:
  - 1. 27 semester credit hours:

BBL	3133	Language Development in Bilinguals
ECE	3133	Programs in Early Childhood
ECE	3603	Language and Cognitive Development in EC–4
ECE	4203	Assessment and Evaluation in EC–4
ESL	3023	Second Language Teaching and Learning in EC–4
ESL	3053	Literacy in a Second Language
RDG	3513	Children’s Literature
RDG	3813	Early Literacy Learning EC–4
RDG	3823	Reading Comprehension EC–4
  - 2. 12 semester credit hours of approved upper-division BBL, ECE, ESL, or RDG coursework
- D. 3 semester credit hours:

IDS	2713	Modes of Inquiry Across the Fields of Study
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- E. Sufficient elective courses to reach a minimum of 128 semester credit hours

## Bachelor of Applied Arts and Sciences in Tourism Management

The minimum number of semester credit hours for the Bachelor of Applied Arts and Sciences degree in Tourism Management is 128.

**Core Curriculum requirements:** Students seeking the Bachelor of Applied Arts and Sciences degree in Tourism Management must fulfill University Core Curriculum requirements in the same manner as other students. The courses listed in the table below satisfy both degree requirements and Core Curriculum requirements; however, if these courses are taken to satisfy both requirements, then students will need to take additional courses in order to meet the minimum number of semester credit hours required for this degree. For a complete listing of courses that satisfy the Core Curriculum requirements, see pages 9–13 of this catalog.

Core Curriculum Requirements	Courses that Satisfy Core Curriculum and Degree Requirements
<b>Rhetoric</b> (6 semester credit hours)	All students must take the following six hours to meet this core requirement: WRC 1013 Freshman Composition I WRC 1023 Freshman Composition II
<b>Domain I: Mathematics and Science</b>	<b>Mathematics</b> (3 semester credit hours) MTC 1033 Algebra with Calculus for Business <b>Science</b> (6 semester credit hours) Three hours from Level One and three hours from Level Two under the appropriate sections in the list of core courses will satisfy this core requirement.
<b>Domain II: Society and Culture</b>	<b>United States History and Diversity</b> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <b>Political Studies</b> (6 semester credit hours) POL 1013 plus 3 additional hours listed under this section in the list of core courses will satisfy this core requirement. <b>Social and Behavioral Sciences</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>Economics</b> (3 semester credit hours) ECO 2013 Introductory Macroeconomics
<b>Domain III: Literature and the Arts</b>	<b>Literature</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <b>The Arts</b> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.
<b>Domain IV: World Society and Issues</b>	(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.

## Degree Requirements

- A. 36 semester credit hours in an organized technical program completed at a two-year college
- B. 42 semester credit hours of Core Curriculum courses (see table above)
- C. 39 semester credit hours of upper-division coursework in the major:
  - 1. 18 semester credit hours in Tourism-specific courses:

BLW	4153	Tourism Law
MKT	3103	Tourism Marketing
MKT	3123	Survey of the Tourism Industry
MKT	4543	Tourism Destination Marketing
MKT	4943	Internship in Tourism (requires approval of the Tourism Program Director; to be taken twice for a total of 6 semester credit hours)
  - 2. 21 semester credit hours in upper-division coursework chosen from the following:

COM	3633	Professional Presentation
MGT	3003	Business Communication and Professional Development
MGT	3803	Strategic Management of Nonprofit Organizations
MKT	3013	Principles of Marketing
MKT	3043	Advertising
MKT	3063	Personal Selling
MKT	3083	Marketing Research
MKT	3113	Retailing
- D. 3 semester credit hours:

IDS	2713	Modes of Inquiry Across Fields of Study
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- E. Sufficient elective courses to reach a minimum of 128 semester credit hours

Photo - Chapter 10: Freshman Initiative

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## FRESHMAN INITIATIVE

Freshman Initiative consists of the Writing Program, Core Mathematics Program, and Learning Communities and Freshman Seminar Program. The objective of the Freshman Initiative is to provide students the opportunity to acquire the necessary skills in writing and mathematics to be successful in their college career. Freshman Initiative courses will use appropriate technologies to enhance the quality of student learning.

### CORE MATHEMATICS PROGRAM

The purpose of the Office of the Core Mathematics Program is to oversee the mathematics courses shown below which satisfy the University's Core Curriculum requirement for mathematics and to oversee the developmental mathematics courses.

The mathematics courses which satisfy the core requirements are MTC 1023, MTC 1033, MTC 1043, and MTC 1073. The goal of these courses is to provide students the opportunity to develop understanding and demonstrate knowledge of mathematics not only in their mathematics courses but also in other university courses which require mathematical reasoning skills. The courses will utilize appropriate technology to enhance the quality of student learning and students' technological literacy.

The developmental courses include the following: MTC 0103 and MTC 0113. The goal of these courses is to provide students the opportunity to gain the necessary mathematical knowledge, skills, and reasoning to be successful in college-level mathematics courses.

### COURSE DESCRIPTIONS CORE MATHEMATICS (MTC)

**0103 Basic Mathematics**

(3-0) 3 hours credit.

A course intended for students with minimal mathematical skills who need a comprehensive review before they can successfully complete an algebra course. Topics include the Fundamental Mathematics and Geometry objectives of the Texas Higher Education Assessment (THEA), with an introduction to algebra. Intensive review and maintenance of computational skills with integers, fractions, decimals, percents, ratio, and proportions; reading and interpreting information presented in graphs, tables, and charts; solving word problems, elementary algebraic equations, problems with two- and three-dimensional geometric figures; and inductive and deductive reasoning skills. Course does not count toward any degree at UTSA. (Formerly MAT 0103.)

**0113 Intermediate Algebra**

(3-0) 3 hours credit.

Introductory algebra course that includes the Texas Higher Education Assessment (THEA) Algebra and Problem Solving objectives. Operations with algebraic expressions; solving one- and two-variable equations; solving word problems involving one and two variables; graphing number relationships; and solving problems involving quadratic equations. Course does not count toward any degree at UTSA. (Formerly MAT 0113.)

**1023 College Algebra With Applications**

(3-0) 3 hours credit. Prerequisite: Satisfactory performance on a placement examination.

Topics include algebraic expressions; equations; inequalities over the real numbers; relations, functions and graphs; polynomial and rational functions; systems of linear equations and inequalities; complex numbers; and matrices and determinants. A wide range of applications will be included in this course. Students majoring in areas that require MAT 1214 Calculus I are encouraged to take MTC 1073 instead of MTC 1023. (Formerly MAT 1023. Credit can be earned for only one of the following: MTC 1023, MAT 1023, MAT 1063, MTC 1073, or MAT 1073.) [TCCN: MATH 1314.]

**1033 Algebra with Calculus for Business**

(3-0) 3 hours credit. Prerequisite: Satisfactory performance on a placement examination.

An introduction to business calculus with an emphasis on the algebra of functions. Concentration is on the algebraic manipulations of functions and includes volume and profit functions, both linear and quadratic; root finding and graphical analysis; matrices; and differentiation and integration. (Formerly MAT 1033. Credit cannot be earned for both MTC 1033 or MAT 1033.) [TCCN: MATH 1325.]

**1043 Introduction to Mathematics**

(3-0) 3 hours credit. Prerequisite: Satisfactory performance on a placement examination.

This course is designed primarily for the liberal arts major to satisfy the core curriculum mathematics requirement. Topics may include logic; proofs; deductive and inductive reasoning; number theory; fundamentals of statistics; basic statistical graphs; causal connections; financial management; functions; linear graphs and modeling; exponential growth and decay; logarithms; fundamentals of probability; fundamentals of geometry; and basic ideas from trigonometry, calculus, and discrete mathematics. (Formerly MAT 1043. Credit cannot be earned for both MTC 1043 or MAT 1043.) [TCCN: MATH 1332.]

**1073 Algebra for Scientists and Engineers**

(3-0) 3 hours credit. Prerequisite: Satisfactory performance on a placement examination.

This course is designed to prepare the student for MAT 1093 Precalculus and MAT 1214 Calculus I. Topics include algebraic expressions; equations; inequalities over the real numbers; relations; functions; polynomial and rational functions; logarithmic and exponential functions; systems of linear equations and inequalities; matrices and determinants; complex numbers; sequences; series; binomial expansion; mathematical induction; permutations, and combinations. (Formerly MAT 1073. Credit can be earned for only one of the following: MTC 1073, MAT 1073, MAT 1063, MTC 1023, or MAT 1023.)

## WRITING PROGRAM

Writing Program courses are designed to help students become the most proficient writers possible. The writing process is stressed along with purposes of writing, audience, correctness, research techniques, and visual layout. Developmental Writing is designed to prepare students for success in Freshman Composition. Freshman Composition I focuses on informative academic writing, while Freshman Composition II uses argumentative and persuasive purposes. Freshman Composition I and II papers concentrate on use of source material and proper documentation of that material. All of the classes have a minimal oral component, providing time for students to practice and sharpen their oral presentation skills. While individual courses will differ, all three courses will entail some computer use. These courses prepare students for demands of the academic and professional worlds.

### COURSE DESCRIPTIONS WRITING PROGRAM (WRC)

**0103 Developmental Writing**

(3-0) 3 credit hours.

Offers the opportunity to increase writing skills before enrollment in WRC 1013. Intensive practice in the writing process, including prewriting, organization, sentence structure, and use of grammar, spelling, and punctuation. Includes critical reading of academic writing and introduces library research and documentation. The course is offered on a credit/no-credit basis. Credit cannot be used to satisfy any degree requirements. (Formerly ENG 0103.)

**1013 Freshman Composition I**

(3-0) 3 credit hours.

Reviews principles of the writing process and of using sources for writing. Introduces the patterns of some development, summary and paraphrase, analysis, evaluation, and synthesis of multiple sources drawn from a variety of cultural and intellectual contexts. Uses informative purposes. Includes some attention to forms of oral and visual communication and extensive library research and documentation. (This course, or an equivalent, is required of all undergraduates to fulfill the Core Curriculum requirement and is normally taken during the first semester of the freshman year.) (Formerly ENG 1013. Credit cannot be earned for both WRC 1013 and ENG 1013.) [TCCN: ENGL 1301.]

**1023 Freshman Composition II**

(3-0) 3 credit hours. Prerequisite: WRC 1013.

Extensive writing practice in the use of logical and organizational patterns with persuasive purposes. Includes some attention to oral and visual communication. Develops critical and analytical skills through multidisciplinary and multicultural readings, using extensive library research and documentation. (This course, or an equivalent, is required of all undergraduates to fulfill the Core Curriculum requirement and should be taken as the continuation of WRC 1013.) (Formerly ENG 1023. Credit cannot be earned for both WRC 1023 and ENG 1023.) [TCCN: ENGL 1302.]

## LEARNING COMMUNITIES AND FRESHMAN SEMINAR PROGRAM

A learning community is a group of up to 25 students who share a common interest, major, or field of study. Most Learning Communities will consist of a Freshman Seminar and two additional Core Curriculum classes such as history, political science, or biology.

### COURSE DESCRIPTION (COR)

**1203 Freshman Seminar**

(3-0) 3 hours credit.

An organized course focusing on a topic in the social and behavioral sciences. Topics will vary, but may include Society and the Arts, Society and Business, Society and Communications, Society and Culture, Society and Education, Society and Health, Society and the Law, Society and Politics, Society and Science, Society and Self, and Society and Technology. No more than 3 semester hours of COR courses may be taken to satisfy the Core Curriculum requirement in Domain IIC.

### COURSE DESCRIPTION (LC)

**1001 Freshman Seminar**

(1-0) 1 hour credit

Small group discussion with faculty representing a variety of academic disciplines. This course provides students the opportunity to learn more about being academically successful while studying a particular topic.

Photo – Chapter 11: Honors College

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## HONORS COLLEGE

The mission of the Honors College is to provide enhanced educational opportunities for selected, motivated, enthusiastic, diverse, and inquisitive students and to foster the pursuit of excellence in undergraduate higher education. The underlying philosophy of the program is that well-educated individuals should understand broad, interdisciplinary perspectives while demonstrating expertise in their chosen field. The Honors College is open to students from all academic disciplines. Members of the Honors College pursue a rigorous academic program which satisfies all requirements of their academic departments and colleges, and goes beyond those requirements to provide the basis for outstanding achievement, and appropriate recognition for that achievement. The Honors College offers small classes with greater opportunities for student participation, increased student-faculty contact, greater individual attention, lively discussions of important issues, special interdisciplinary seminars, community service opportunities, and supervised research experiences, all designed to challenge talented students.

Throughout a student's program of study, the Honors College's emphasis is on breadth of academic experience. In the junior and senior year, Honors students usually become more focused in a particular academic discipline. Upper-division Honors work typically culminates in a senior honors thesis or senior honors project under the direction of a faculty member from the student's major department.

Participation in the Honors College supplements, but does not replace, work in a major field. Credits earned in Honors College courses may be used to satisfy Core Curriculum requirements or specific degree requirements. Honors College and departmental advisors assist in assuring that students meet all requirements of each student's major curriculum.

### Admission and Retention

#### Entering Freshmen

Entering freshmen with a minimum SAT score of 1100 or ACT score of 26 or class rank in the top 10 percent are invited to apply for admission to the college.

#### Continuing or Transfer Students

Continuing students and transfer students who have completed at least 12 hours of college course work and have attained at least a 3.30 grade point average (GPA) are also invited to apply for admission.

#### Good Standing

Following the initial semester in the college, an honors student is considered to be in good standing if he or she maintains a minimum overall or UTSA GPA of 3.25 and successfully completes a minimum of one honors course per academic year. These courses may include honors sections of departmental courses, courses offered through the College (HON), and credit earned through honors contracts. A student not in good standing for two consecutive semesters will be dropped from the college. Students whose GPA falls below 3.25 but remains above 3.00 may petition to remain in the Honors College as a probationary member. Only students in good standing qualify for Honors graduation.

#### Readmission

Students who have been dropped from the College may apply for readmission if:

- They have attained a minimum overall or UTSA GPA of 3.25; and
- They are currently enrolled in an honors course or register for an honors course at the time of request.

#### Dual College Membership

All Honors College students are also members of a degree-granting college. Admission to the Honors College is independent of admission to any other academic unit.

## Facilities and Services

The UTSA Honors College provides the following opportunities to members of the college:

*Counseling and Priority Registration.* The honors staff provides academic counseling for all honors students. Honors College students are given priority registration if they preregister for the following semester through the Honors College and are enrolling in a qualifying course.

*Honors Scholarships.* The Honors College, in conjunction with the UTSA Scholarship Office, annually awards numerous Honors scholarships. Most Honors scholarships are renewable for up to three years for students who maintain the requisite 3.25 GPA and complete an Honors course each semester. More information on scholarships is available in the Office of the Dean of the Honors College.

*Honors Undergraduate Research Programs.* The Honors Undergraduate Research Program assists students in finding research assistantships in their academic disciplines. In addition, the UTSA Undergraduate Fellows Program provides students working on an Honors thesis with financial assistance for research projects.

*Honors Study Abroad.* The Honors Study Abroad Program works with the International Programs Office to offer opportunities for Honors students to acquire new knowledge and understanding of the people, events, movement, ideas, and objects of cultures other than their own. Scholarships are available through the International Education Fund.

*Honors Internships.* Honors students are encouraged to work in their fields prior to graduation. Internships may be assigned locally, nationally, and internationally. Students may earn credit for Honors internship experiences.

*Undergraduate and Graduate Fellowships.* The Honors College coordinates on-campus efforts to assist graduating students interested in applying for graduate awards such as Rhodes Scholarships, Marshall Scholarships, Mellon Fellowships for the Humanities, NSF Fellowships, and Gates Cambridge Scholarships. Additionally, the Honors College staff identifies and assists students interested in undergraduate awards such as the Harry S. Truman Scholarships and Goldwater Scholarships.

*Participation in Honors Councils.* The UTSA Honors College is an institutional member of the National Collegiate Honors Council (NCHC), the Great Plains Honors Council (GPHC), and the Council of Honors Administrators in Texas (CHAT). These organizations support honors education in the United States and address issues that face higher education and honors programs across the country. Honors students are encouraged to participate in these organizations and are, thus, able to meet and interact with honors students from across the region and nation.

## Honors College Requirements

### Tier 1 Honors

Students who enter the Honors College as freshmen are eligible to earn the distinction of graduation with Tier 1 Honors. Students qualify for the distinction of graduating with Tier 1 Honors, if they: (1) complete 21 hours of honors courses, including IDS 2203, IDS 2213, or CSH 1213 and one Honors Seminar (courses numbered HON 3223 through HON 3253); and (2) attain a cumulative or UTSA grade point average of 3.25 or higher. A maximum of 9 semester credit hours of honors contract work may be applied to the 21 hours of honors course work.

### Tier 2 Honors

All members of the Honors College are eligible to earn the distinction of graduation with Tier 2 Honors. Students qualify for the distinction of graduating with Tier 2 Honors, if they: (1) complete 30 hours of Honors courses, including IDS 2203, IDS 2213, or CSH 1213 and two Honors Seminars (courses numbered HON 3223 through HON 3253); (2) attain a cumulative or UTSA grade point average of 3.25 or higher, and (3) complete a senior Honors thesis or senior Honors project. A maximum of 12 hours of Honors contract work may be applied to the 30 required hours of honors course work. The Honors thesis or Honors project must be signed by a three-member committee approved by the Advisory Committee on Honors Education. Students who enter the College with 50+ semester credit hours and wish to graduate with Tier 2 Honors may petition to waive 6 hours of Honors coursework.

### International Distinction

Students who qualify for graduation with Tier 1 or Tier 2 Honors may also qualify for graduation with international distinction. Students qualify for graduation with international distinction if they: (1) complete all the requirements for Tier 1 or Tier 2 Honors; and (2) either master a foreign language at the 2023 level or above or participate in a study-abroad experience for at least one Spring or Fall Semester. Students who earn the international distinction designation graduate with “Tier 1 Honors with international distinction” or “Tier 2 Honors with international distinction.”

## Graduation with College Honors

Members of the Honors College who complete the requirements for Tier 1 Honors or Tier 2 Honors qualify to graduate from the Honors College. Recognition for graduation from the Honors College includes a notation on the transcript and diploma and mention in the Commencement bulletin.

## COURSE DESCRIPTIONS HONORS (HON)

- 2201 Honors Community Service**  
1 hour credit. Prerequisite: Enrollment in the University Honors College or consent of instructor.  
Supervised community service experience relevant to an Honors education. May be repeated for credit, but not more than 3 semester credit hours will apply to a bachelor's degree.
- 3021 Honors Essay Writing**  
1 hour credit. Prerequisites: WRC 1013 and WRC 1023 and enrollment in the University Honors College or consent of instructor.  
A special Honors course designed to allow students to receive credit for work on writing essays for competitions. Involves substantial rewriting. May be repeated for credit, but not more than 3 semester credit hours will apply to a bachelor's degree.
- 3201 Advanced Preceptorial**  
(1-0) 1 hour credit. Prerequisite: Enrollment in the University Honors College or consent of instructor.  
A special Honors discussion section designed to accompany upper-division classes. May be repeated for credit when topics vary.
- 3223 Honors Seminar in Social & Behavioral Sciences**  
(3-0) 3 hours credit. Prerequisite: Enrollment in the University Honors College or consent of instructor.  
Interdisciplinary seminar that explores broad topics and themes in the social and behavioral sciences. May be repeated for credit when topics vary.
- 3233 Honors Seminar in Arts & Humanities**  
(3-0) 3 hours credit. Prerequisite: Enrollment in the University Honors College or consent of instructor.  
Interdisciplinary seminar that explores broad topics and themes in arts and humanities. May be repeated for credit when topics vary.
- 3243 Honors Seminar in Business & the Professions**  
(3-0) 3 hours credit. Prerequisite: Enrollment in the University Honors College or consent of instructor.  
Interdisciplinary seminar that explores broad topics and themes in business and the professions. May be repeated for credit when topics vary.
- 3253 Honors Seminar in the Sciences**  
(3-0) 3 hours credit. Prerequisite: Enrollment in the University Honors College or consent of instructor.  
Interdisciplinary seminar that explores broad topics and themes in the sciences. May be repeated for credit when topics vary.
- 3501 Honors Thesis Exploration Seminar**  
(1-0) 1 hour credit. Prerequisite: Enrollment in the University Honors College or consent of instructor.  
Course designed to help students develop an understanding of what a thesis project is, what resources are necessary to complete the project, and identify a topic and a faculty thesis advisor. Students are encouraged to take this course in the first semester of their junior year.

**4913 Honors Independent Study**

3 hours credit. Prerequisite: Enrollment in the University Honors College or consent of instructor.

Independent reading, research, and writing under the direction of a faculty member. Designed as preparation for completion of an Honors Thesis. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree.

**4941 Honors Leadership**

1 hour credit. Prerequisite: Enrollment in the University Honors College or consent of instructor.

Supervised leadership experience relevant to an Honors education. Usually involves planning and designing experiences for new Honors students.

**4953 Honors Internship**

3 hours credit. Prerequisite: Enrollment in the University Honors College or consent of instructor.

Supervised service or leadership experience relevant to an Honors education. A maximum of 6 semester credit hours may be earned through Honors Internship.

**4993 Honors Thesis**

3 hours credit. Prerequisite: Enrollment in the University Honors College or consent of instructor.

Supervised research and preparation of an Honors Thesis for the purpose of earning University Honors. May be repeated once for credit.

Photo – Appendices

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**APPENDIX A****UTSA Faculty****COLLEGE OF BUSINESS*****DEPARTMENT OF ACCOUNTING***

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## APPENDIX B

# Texas Common Course Numbering System

UTSA is a participant in the Texas Common Course Numbering (TCCN) System. A standard set of four-character abbreviations for academic disciplines and four-digit course numbers, this system aids in the transfer of lower-division academic courses among colleges and universities in Texas. The first digit of the number represents the academic level of the course (0 for subfreshman, 1 for freshman, and 2 for sophomore); the second represents the semester credit hours value of the course. Most community colleges in Texas have adopted TCCN as their course numbering system; others cross-reference their courses with TCCN.

The table below lists TCCN course designation and their UTSA equivalents. UTSA courses are designated by four-digit numbers following a two- or three-letter abbreviation of the academic discipline. The first digit indicates the level of the course (0 are developmental education courses, 1 and 2 are lower-division). The second and third digits are used within the colleges by each department to distinguish individual courses. The fourth digit indicates the semester-credit-hour value of each course.

UTSA Course	TCCN Course	UTSA Acceptable Substitute*
ACC 2013	ACCT 2301	
ACC 2033	ACCT 2302	
AHC 1033	ARTS 1301	
AHC 1113	ARTS 1303	
AHC 1123		ARTS 1304
AHC 1133		ARTS 1304
AHS 1053	BIOL 2320	
AHS 1061	BIOL 2120	
AHS 2043	BIOL 1322	
AHS 2083	BIOL 2301	
AHS 2091	BIOL 2101	
AHS 2103	BIOL 2302	
AHS 2111	BIOL 2102	
ANT 1013	ANTH 2346	
ANT 2033	ANTH 2301	
ANT 2043	ANTH 2302	
ANT 2053	ANTH 2351	
ANT 2063		ANTH 2351

ARC 1313	ARCH 1307	
ARC 1413	ARCH 1305	
ARC 1423	ARCH 1311	
ARC 2413	ARCH 1301	
ARC 2423	ARCH 1302	
ART 1003	ARTS 1311	
ART 1013	ARTS 1312	
ART 1143	ARTS 1325	
ART 1213	ARTS 1316	
ART 1223	ARTS 1317	
ART 2113	ARTS 2316	
ART 2413	ARTS 2333	
ART 2513	ARTS 2356	
ART 2613	ARTS 2326	
ART 2713	ARTS 2346	
ASL 1013	SGNL 1301	
ASL 1023	SGNL 1302	
ASL 2013	SGNL 2301	
ASL 2023	SGNL 2302	
AST 1013	PHYS 1311	
AST 1031	PHYS 1111	
AST 1033	PHYS 1312	
BBL 2003		SOCI 2319
BBL 2023		SPAN 2324
BBL 2033		SOCI 2320
BIO 1033	PHED 1346	
BIO 1113	BIOL 1306	
BIO 1122	BIOL 1106	
BIO 1123		BIOL 1307
BIO 1143		BIOL 1307
BIO 2313	BIOL 2316	
CE 2513	ENGR 2302	
CHE 1003	CHEM 1305	
CHE 1011	CHEM 1105	
CHE 1073		CHEM 1305
CHE 1103	CHEM 1311	
CHE 1203	CHEM 1307	
CHE 1211	CHEM 1107	
CHE 1303	CHEM 1312	
CHE 1312	CHEM 1112	
CHE 2204	CHEM 2323	
CHE 2242	CHEM 2223	
CHE 2303	CHEM 2325	
CHE 2342	CHEM 2225	
CLA 2033		ENGL 2331
CLA 2323		ENGL 2331
COM 1043	SPCH 1311	
COM 1053	SPCH 1321	
COM 2113	SPCH 1315	
COM 2123	SPCH 2341	
COM 2343	COMM 1307	
COM 2801	SPCH 2144	
COR 1203		
CRJ 1113	CRIJ 1301	
CRJ 2213	CRIJ 2328	
CRJ 2513	CRIJ 2313	
CRJ 2813	CRIJ 1306	

UTSA Course	TCCN Course	UTSA Acceptable Substitute*
CS 1023 CS 1063 CS 1713/1711 CS 1723/1721	COSC 1300 COSC 1336 COSC 1437 COSC 2436	
CSH 1103 CSH 1113 CSH 1203 CSH 1213 CSH 2113 CSH 2313	HUMA 2323	ENGL 2332 ENGL 2333 SPN 2324  HUMA 1302 ENGL 2331
ECE 2103 ECE 2113	TECA 1354 TECA 1311	
ECO 2003 ECO 2013 ECO 2023	ECON 1301 ECON 2301 ECON 2302	
EGR 2203 EGR 2213 ENG 1013 ENG 1023 ENG 2013 ENG 2213 ENG 2223 ENG 2233 ENG 2413	ENGR 2301 ENGR 2303 ENGL 1301 ENGL 1302  ENGL 2322 ENGL 2323 ENGL 2311	ENGL 2331
ES 2013	BIOL 2306	
FRN 1014 FRN 1024 FRN 2013 FRN 2023 FRN 2333	FREN 1411 FREN 1412 FREN 2311 FREN 2312	ENGL 2331
GEO 1013 GEO 1103 GEO 1111 GEO 1123 GEO 1131	GEOG 1301 GEOG 1303 GEOG 1103 GEOG 1304 GEOG 1104	
GER 1014 GER 1024 GER 2013 GER 2023 GER 2333	GERM 1411 GERM 1412 GERM 2311 GERM 2312	ENGL 2331
GRG 1013 GRG 1023 GRG 2613 GRG 2623	GEOG 1300 GEOG 1303 GEOG 1301 GEOG 1302	
HIS 1043 HIS 1053 HIS 2053 HIS 2123 HIS 2133 HIS 2533 HIS 2543 HIS 2553 HIS 2573	HIST 1301 HIST 1302 HIST 2301 HIST 2321 HIST 2322  HIST 2323	HIST 2331 HIST 2312  HIST 2312

HTH 2513 HTH 2523	PHED 1304 PHED 1306	
HUM 2093	PHIL 1304	
IDS 2103 IDS 2113 IDS 2203 IDS 2213 IDS 2303 IDS 2313	TECA 1303  HIST 2321 HIST 2322 ENGL 2332 ENGL 2333	SOCI 1301
IS 1403	BCIS 1305	
ITL 1014 ITL 1024 ITL 2013 ITL 2023 ITL 2333	ITAL 1411 ITAL 1412 ITAL 2311 ITAL 2312	ENGL 2331
JPN 1014 JPN 1024 JPN 2013 JPN 2023	JAPN 1411 JAPN 1412 JAPN 2311 JAPN 2312	
KIN 2123 KIN 2303 KIN 2423	PHED 1338 PHED 1301 PHED 1336	
LAT 1114 LAT 1124 LAT 2113 LAT 2123	LATI 1411 LATI 1412 LATI 2311 LATI 2312	
MAT 1093 MAT 1153 MAT 1163 MAT 1214 MAT 1223 MAT 2213 MAT 2233	MATH 2312 MATH 1350 MATH 1351 MATH 2413 MATH 2314 MATH 2315 MATH 2318	
MTC 1023 MTC 1033 MTC 1043 MTC 1073	MATH 1314 MATH 1325 MATH 1332 MATH 1314	
MUS 1102 MUS 1112 MUS 1122 MUS 1132 MUS 1531 MUS 2102 MUS 2112 MUS 2132 MUS 2142 MUS 2152 MUS 2162 MUS 2623 MUS 2663 MUS 2673 MUS 2683 MUS 2693	MUSI 1216 MUSI 1211 MUSI 1217 MUSI 1212 MUSI 1183 MUSI 2216 MUSI 2217 MUSI 1263 MUSI 1286 MUSI 2211 MUSI 2212 MUSI 1301  MUSI 1306	MUSI 1306 MUSI 1306  MUSI 1306
PHI 2013 PHI 2023 PHI 2033	PHIL 1301 PHIL 2316 PHIL 2317	

UTSA Course	TCCN Course	UTSA Acceptable Substitute*
PHI 2043 PHI 2123	PHIL 2303	PHIL 2306
PHY 1013 PHY 1603 PHY 1611 PHY 1623 PHY 1631 PHY 1904 PHY 1911 PHY 1924 PHY 1931	PHYS 1310 PHYS 1301 PHYS 1101 PHYS 1302 PHYS 1102 PHYS 2425 PHYS 2125 PHYS 2426 PHYS 2126	
POL 1013 POL 1133 POL 1213 POL 2533	GOVT 2301 GOVT 2306 GOVT 2302 GOVT 2304	
PSY 1013 PSY 1513 PSY 2503 PSY 2523 PSY 2533	PSYC 2301  PSYC 2314 PSYC 2316 PSYC 2319	PSYC 2340
RUS 1014 RUS 1024 RUS 2013 RUS 2023 RUS 2333	RUSS 1411 RUSS 1412 RUSS 2311 RUSS 2312	ENGL 2331
SOC 1013 SOC 2013	SOCI 1301 SOCI 1306	
SPN 1014 SPN 1024 SPN 2003 SPN 2013 SPN 2023 SPN 2103 SPN 2333 SPN 2513 SPN 2523	SPAN 1411 SPAN 1412  SPAN 2311 SPAN 2312  SPAN 2316 SPAN 2324	SPAN 2311  SPAN 2312 ENGL 2331
STA 1043 STA 1053	MATH 1442 MATH 1342	
THR 1013 THR 1023	DRAM 1351 DRAM 1352	
WRC 1013 WRC 1023	ENGL 1301 ENGL 1302	
WGS 2013		HUMA 2319
<p><i>*Core curriculum courses that do not have a Texas Common Course Number (TCCN) have been assigned an "acceptable substitute TCCN." If a student completes a course bearing this number, it will be accepted as meeting the applicable core curriculum requirement.</i></p>		

## APPENDIX C

# NATIONAL STANDARDIZED TESTS: MINIMUM SCORES REQUIRED FOR CREDIT AT UTSA

Students are encouraged to maximize their experience at UTSA by accessing the credit that can be received through the College Level Examination Program (CLEP), Advanced Placement (AP) program, and International Baccalaureate Examination. The following tables provide information on minimum scores required in order to receive credit at UTSA. There are university policies that may affect whether or not credit can be received through these tests. The cutoff scores displayed on these pages are valid beginning June 1, 2003. These scores are subject to change at the end of each academic year. For a complete listing of these policies, please review the CLEP brochure (available in Testing Services, room: BSA 1.01.12, phone: 210-458-4125.)

<b>ADVANCED PLACEMENT</b>			
<b>Subject</b>	<b>Test Used</b>	<b>Minimum Score Required for UTSA Credit</b>	<b>UTSA Credit Awarded*</b>
ART	History of Art	3	AHC elective, 3 hours
BIOLOGY	Biology	3	BIO 1113, 1122 (lab) and BIO 1143
CHEMISTRY	Chemistry	3	CHE 1103
		4	CHE 1103, 1303
COMPUTER SCIENCE	Computer Science A	3	CS elective, 3 hours
		4	CS 1711, 1713
	Computer Science AB	4	CS 1711, 1713 CS 1721, 1723
ECONOMICS	Macroeconomics	3	ECO 2013
	Microeconomics	3	ECO 2023
ENGLISH	English Language and Composition	3	WRC 1013
	English Literature and Composition	3	WRC 2013
FRENCH	French Language	2	FRN 1014, 1024
		3	FRN 1014, 1024 FRN 2013, 2023 FRN 3023
	French Literature	3	FRN Literature elective, 3 hours (upper division)
GEOGRAPHY	Human Geography	4	GRG elective, 3 hours

GERMAN	German Language	2	GER 1014, 1024
		3	GER 1014, 1024 GER 2013, 2023
		4	GER 1014, 1024 GER 2013, 2023 GER 3023
HISTORY	United States History	3	HIS 1043, 1053
	European History	3	HIS 2563
	World History	3	HIS 2123 or IDS 2203 or HIS 2133 or IDS 2213 **
MATHEMATICS	Calculus AB	3	MAT 1214
	Calculus BC	3	MAT 1214, 1223
	Statistics	3	STA 1043 or 1053 ***
PHYSICS	Physics B	3	PHY 1603, 1623
	Physics C a. Mechanics	3	PHY 1904
POLITICAL SCIENCE	Government and Politics US	3	POL 1013#
PSYCHOLOGY	Psychology	3	PSY 1013
SOCIAL SCIENCES	Please refer to History		
SPANISH	Spanish Language	2	SPN 1014, 1024
		3	SPN 1014, 1024 SPN 2013, 2023
		4	SPN 1014, 1024 SPN 2013, 2023 SPN elective, 3 hours (upper division)
	Spanish Literature	3	SPN Literature elective, 3 hours (upper division)
<p><i>*All credit shown in this table as elective credit is lower division unless otherwise indicated.</i></p> <p><i>** Credit will be given for either HIS 2123, HIS 2133, IDS 2203, or IDS 2213, but not for all.</i></p> <p><i>*** Credit will be given for either STA 1043 or STA 1053, but not for both.</i></p> <p><i># This credit is earned after completion of POL 1133 (Texas Politics and Society.) Any substitutions or equivalencies allowed by an advisor will not be the responsibility of Testing Services.</i></p>			

<b>COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)</b>			
<b>Subject</b>	<b>Test Used</b>	<b>Minimum Score Required for UTSA Credit</b>	<b>UTSA Credit Awarded*</b>
BIOLOGY	Subject Examination in: General Biology	50	BIO 1113 and BIO 1122 (lab)
BUSINESS	Subject Examination in: Principles of Accounting	50	ACC 2013
	Introductory Business Law	50	BLW 3013
	Principles of Management	50	MGT 3013
	Principles of Marketing	50	MKT 3013
CHEMISTRY	Subject Examination in: Chemistry	50	CHE 1103
		60	CHE 1103, 1303
COMPUTER SCIENCE	Subject Examination in: Information Systems and Computer Applications	50 57	CS elective, 3 hours IS 3003
<i>This examination is the same for both credit granting areas. The score determines which credit is awarded. Credit cannot be used for both IS and CS. Students having earned course credit for IS 3003 cannot earn test credit for the CS elective.</i>			
ECONOMICS	Subject Examinations in: Principles of Macroeconomics	50	ECO 2013
	Principles of Microeconomics	50	ECO 2023
ENGLISH	General Examination in: English Composition with Essay	47	WRC 1013
		63	WRC 1013, 1023
	Subject Examination in: Freshman College Composition with Essay	50+	WRC 1023
	American Literature	50	ENG 2263
	English Literature	50	ENG 2223, 2233
	Analyzing and Interpreting Literature with Essay	50 55+	ENG 2013 ENG 2213
+with "pass" on essay scored by English Department Faculty			

FRENCH	Subject Examination in: College Level French Language	43	FRN 1014
		50	FRN 1014, 1024
		56	FRN 1014, 1024, 2013
		62	FRN 1014, 1024 FRN 2013, 2023
	Diplome d'Etudes en Langue Francaise**  <i>**For details, contact the Department of Modern Languages and Literatures (458-4373).</i>	Unitè A1  Unitè A1, A2  Premier Degrè  Unitès A1, A2, A3, A4	FRN 1014  FRN 1014, 1024  FRN 1014, 1024  FRN 2013, 2023
GERMAN	Subject Examination in: College Level German Language	43	GER 1014
		50	GER 1014, 1024
		56	GER 1014, 1024, 2013
		63	GER 1014, 1024 GER 2013, 2023
HEALTH	Subject Examination in: Human Growth and Development	50	HTH 3543
HISTORY	General Examination in: Social Sciences and History	50	HIS elective, 3 hours
	Subject Examinations in: History of the United States I	50	HIS 1043
	History of the United States II	50	HIS 1053
INTERDISCIPLINARY STUDIES	Subject Examinations in: Western Civilization I: Ancient Near East to 1648	50	IDS 2203
	Western Civilization II 1648 to the Present	50	IDS 2213
MATHEMATICS	General Examination in: College Mathematics	50	MAT elective, 3 hours
	Subject Examination in: Calculus with Elementary Functions	50	MAT 1214
	College Algebra	50	MTC 1023

	College Algebra-Trigonometry	50	MAT 1093
NATURAL SCIENCES	General Examination in: Natural Sciences	50	BIO elective, 3 hours
POLITICAL SCIENCE	Subject Examination in: American Government	50	POL 1013**
PSYCHOLOGY	Subject Examination in: Introductory Psychology	50	PSY 1013
SOCIAL SCIENCES	Please refer to History		
SOCIOLOGY	Subject Examination in: Introductory Sociology	50	SOC 1013
SPANISH	Subject Examination in: College Level Spanish Language	43	SPN 1014
		50	SPN 1014, 1024
		58	SPN 1014, 1024, 2013
		66	SPN 1014, 1024 SPN 2013, 2023
<p><i>*All credit shown in this table as elective credit is lower division unless otherwise indicated.</i></p> <p><i>** This credit is earned after completion of POL 1133 (Texas Politics and Society). Any substitutions or equivalencies allowed by an advisor will not be the responsibility of Testing Services.</i></p>			

<b>International Baccalaureate Examination</b>		
<b>Examination</b>	<b>UTSA Course</b>	<b>Minimum Score Required</b>
<b>College of Business</b>		
Economics	ECO 2013, 2023	4
<b>College of Liberal and Fine Arts</b>		
Anthropology	ANT 2053	6
Art/Design	ART 1003	5
English Language A1 or A2	WRC 1013, 1023	5
French A1 or A2	FRN (3 hrs upper division)	3
	FRN (6 hrs upper division)	4
	FRN (9 hrs upper division)	5
French Language B	FRN 1014, 1024, 2013	3
	FRN 1014, 1024, 2013, 2023	4
	FRN 1014, 1024, 2013, 2023 & 6 hrs upper division	5
	FRN 1014, 1024, 2013, 2023 & 9 hrs upper division	6
German Language A1 or A2	GER (3 hrs upper division)	3
	GER (6 hrs upper division)	4
	GER (9 hrs upper division)	5
German Language B	GER 1014, 1024, 2013	3
	GER 1014, 1024, 2013, 2023	4
	GER 1014, 1024, 2013, 2023 & 6 hrs upper division	5
	GER 1014, 1024, 2013, 2023 & 9 hrs upper division	6
Geography	GRG 1023	5
History, European	HIS (3 hrs at sophomore level)	6
History, African	HIS (3 hrs at sophomore level)	6
History, American	HIS (3 hrs at sophomore level)	6
Italian Language A1 or A2	ITL (3 hrs upper division)	3
	ITL (6 hrs upper division)	4
	ITL (9 hrs upper division)	5
Italian Language B	ITL 1014, 1024, 2013	3
	ITL 1014, 1024, 2013, 2023	4
	ITL 1014, 1024, 2013, 2023 & 6 hrs upper division	5
	ITL 1014, 1024, 2013, 2023 & 9 hrs upper division	6
Japanese Language A1 or A2	JPN (3 hrs upper division)	3
	JPN (6 hrs upper division)	4
	JPN (9 hrs upper division)	5

Japanese Language B	JPN 1014, 1024, 2013	3
	JPN 1014, 1024, 2013, 2023	4
	JPN 1014, 1024, 2013, 2023 & 6 hrs upper division	5
	JPN 1014, 1024, 2013, 2023 & 9 hrs upper division	6
Music	MUS theory (6 hrs)	6
Philosophy	PHI 2013	5
Psychology	PSY 1013	5
Russian Language A1 or A2	RUS (3 hrs upper division)	3
	RUS (6 hrs upper division)	4
	RUS (9 hrs upper division)	5
Russian Language B	RUS 1014, 1024, 2013	3
	RUS 1014, 1024, 2013, 2023	4
	RUS 1014, 1024, 2013, 2023 & 6 hrs upper division	5
	RUS 1014, 1024, 2013, 2023 & 9 hrs upper division	6
Spanish Language A1 or A2	SPN (3 hrs upper division)	3
	SPN (6 hrs upper division)	4
	SPN (9 hrs upper division)	5
Spanish Language B	SPN 1014, 1024, 2013	3
	SPN 1014, 1024, 2013, 2023	4
	SPN 1014, 1024, 2013, 2023 & 6 hrs upper division	5
	SPN 1014, 1024, 2013, 2023 & 9 hrs upper division	6
<b>College of Sciences</b>		
Biology	BIO 1113, 1122, 1123	4
Chemistry	CHE 1103, 1122	4
	CHE 1103, 1122, 1303, 1312	5
Computer Science	CS 1063, 1713	4
Mathematics	MAT 1093, 1214	4
Physics	PHY 1013	5

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