UNDERGRADUATE CATALOG
2000–2002

BULLETIN OF THE UNIVERSITY OF TEXAS AT SAN ANTONIO
USPS #982940 VOLUME XIX AUGUST 2000 NUMBER 4
Published monthly (one issue in February, two issues in March, two issues in August, and two issues in September) by The University of Texas at San Antonio.

Office of Admissions and Registrar
6900 North Loop 1604 West
San Antonio, TX 78249-0616.

Periodicals Postage Paid at San Antonio, Texas
POSTMASTER: Send address changes to
BULLETIN OF THE UNIVERSITY OF TEXAS AT SAN ANTONIO
Office of Admissions and Registrar
6900 North Loop 1604 West
San Antonio, TX 78249-0616
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.

---

**Academic structure:** The University of Texas at San Antonio is currently undergoing changes in its academic structure. This catalog reflects the structure for the academic year 2000–2001. Effective Fall 2000, UTSA has six colleges: College of Business, College of Education and Human Development, College of Engineering, College of Liberal and Fine Arts, College of Sciences, and College of Urban Professional Programs. Beginning with the Fall 2001 semester, the University will move toward a departmental structure founded upon the principle of discipline-based academic units. For a current listing of colleges, divisions, and disciplines, please refer to the UTSA Information bulletin.

**University publications:** For the first time, information included in previous UTSA catalogs has been divided into two publications. 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, and policies on grades and the grade point average, credit by examination, adding and dropping courses and withdrawal from the University, and scholastic probation and dismissal. This publication also gives historical and current information about the University’s organization and physical facilities.

The UTSA Undergraduate Catalog provides information about degrees offered by the undergraduate divisions 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.

**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. New students with less than 30 credit hours and undeclared majors with less than 45 hours should go to the Tomás Rivera Center for Student Success for advising. Other students should go to the advising center of the college housing the degree program in which they are interested.
# TABLE OF CONTENTS

1. Bachelor’s Degree Regulations .................................................................................................................. 5  
   Degree Requirements ................................................................................................................................. 5  
   Core Curriculum ....................................................................................................................................... 5  
   Minors ....................................................................................................................................................... 11  
   Transferring Courses ................................................................................................................................. 12  
   Enrollment in Graduate Courses .................................................................................................................. 14  
   Graduation ................................................................................................................................................. 14  

2. College of Business .................................................................................................................................. 19  
   Division of Accounting and Information Systems .................................................................................... 23  
   Division of Economics and Finance ........................................................................................................... 33  
   Division of Management and Marketing .................................................................................................. 49  

3. College of Education and Human Development ..................................................................................... 79  
   Division of Education ............................................................................................................................... 79  
   Division of Bicultural-Bilingual Studies .................................................................................................... 127  

4. College of Engineering ............................................................................................................................. 139  

5. College of Liberal and Fine Arts ............................................................................................................. 175  
   School of Architecture ............................................................................................................................. 175  
   Division of Behavioral and Cultural Sciences ........................................................................................ 186  
   Division of English, Classics, Philosophy, and Communication ............................................................. 219  
   Division of Foreign Languages ................................................................................................................ 253  
   Division of Music .................................................................................................................................. 276  
   Division of Social and Policy Sciences ................................................................................................... 295  
   Division of Visual Arts ............................................................................................................................ 325  

6. College of Sciences ..................................................................................................................................... 335  
   Division of Computer Science ................................................................................................................ 335  
   Division of Earth and Physical Sciences .................................................................................................. 342  
   Division of Life Sciences .......................................................................................................................... 373  
   Division of Mathematics and Statistics .................................................................................................. 390  

7. College of Urban Professional Programs ............................................................................................... 403  
   Division of Criminal Justice .................................................................................................................... 403  
   Division of Public Administration .......................................................................................................... 412  

University Honors Program ......................................................................................................................... 413  

Core Curriculum Courses ............................................................................................................................ 415  

Preprofessional Courses of Study in Law, Medicine, or Business ............................................................... 417  

Appendix: Faculty .......................................................................................................................................... 421  

Index ............................................................................................................................................................. 439
CHAPTER 1

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 Admissions and Registrar and pay the required fee.

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. 24 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 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, 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 competence 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:

- ENG 1013 Freshman Composition
- ENG 1023 Discourse across the Disciplines

**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:

- MAT 1023 College Algebra
- 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 1203 Biology I
CHE 1073  Basic Chemistry  
ES 2013  Introduction to Environmental Systems  
GEO 1013  The Third Planet  
PHY 2004  Understanding Physics  

**Level Two**  
AST 1013  Introduction to Astronomy  
AST 1033  Exploration of the Solar System  
BIO 1223  Biology II  
CHE 1103  General Chemistry  
CHE 1303  Chemical Principles  
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.  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS 1043</td>
<td>United States History: Pre-Columbus to Civil War Era</td>
<td>3</td>
</tr>
<tr>
<td>HIS 1053</td>
<td>United States History: Civil War Era to Present</td>
<td>3</td>
</tr>
<tr>
<td>HIS 2053</td>
<td>Texas History</td>
<td>3</td>
</tr>
</tbody>
</table>

**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.  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL 1013</td>
<td>Introduction to American Politics</td>
<td>3</td>
</tr>
<tr>
<td>POL 1133</td>
<td>Texas Politics and Society</td>
<td>3</td>
</tr>
<tr>
<td>POL 1213</td>
<td>Topics in Texas and American Politics</td>
<td>3</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMS 2013</td>
<td>Basic Issues in American Culture</td>
<td>3</td>
</tr>
<tr>
<td>ANT 1013</td>
<td>Introduction to Anthropology (formerly Human Adaptation)</td>
<td>3</td>
</tr>
<tr>
<td>BBL 2003</td>
<td>Language, Culture, and Society</td>
<td>3</td>
</tr>
<tr>
<td>BBL 2033</td>
<td>Multiculturalism in the Southwest</td>
<td>3</td>
</tr>
<tr>
<td>COR 2203</td>
<td>Topics in the Social and Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 1113</td>
<td>The American Criminal Justice System</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 2813</td>
<td>Introduction to Courts and the Legal System</td>
<td>3</td>
</tr>
</tbody>
</table>
GRG 1013  Fundamentals of Geography
GRG 2623  Human Geography
IDS 2113  Society and Social Issues
PSY 1013  Introduction to Psychology
PSY 1203  Principles of 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
    FRN 2333  French Literature in English Translation
    GER 2333  German Literature in English Translation
    IDS 2303  World Literature I: The Narrative Mode
    IDS 2313  World Literature II: Dramatic and Lyric Modes
    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 I
    ARC 2423  History of Architecture II
    ART 1153  Painting for Non-Art Majors
    ART 1163  Drawing for Non-Art Majors
    ART 1173  Photography for Non-Art Majors
    BBL 2023  Latino Cultural Expressions
    MUS 2623  Basic Elements 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: Interdisciplinary Studies (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
HUM 2093 World Religions
IDS 2203 World Civilization to the Fifteenth Century
IDS 2213 World Civilization since the Fifteenth Century
ITAL 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,” “F,” or “EP.” 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 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 with the Enrollment Services Center. Students may not formally minor in more than two fields. Descriptions of minor requirements are included in chapters 2-7 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 and Registrar.

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 supplied to each new student as soon as possible 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.

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 and Registrar. 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 and Registrar for further explanation. The Office of Admissions and Registrar, 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 and Registrar 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 and Registrar 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 non-accredited institution).

Credits completed at institutions outside the U.S. must be evaluated on an individual basis, at the student’s expense, by the foreign credentials evaluation service designated by the Office of Admissions and Registrar. 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 and the course is transferable. 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 and Registrar 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.

ENROLLMENT IN GRADUATE COURSES

For Undergraduate Credit

With approval of the student’s advisor, the instructor, the Division Director, and the Dean of the college in which the course is offered, an exceptional undergraduate student may enroll in a graduate course and apply the credit earned to an undergraduate degree. Approval forms are available in the Deans’ offices and the Enrollment Services Center.

For Graduate Credit

An undergraduate student 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.

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 Spring and Fall Semesters. Students who have graduated the previous summer may participate in commencement ceremonies at the close of the Fall Semester. Information on the procedures to be followed is available in the Office of Admissions and Registrar. Students may not participate in ceremonies before their actual date of graduation.
Applying for the Degree

The student must apply for a degree as soon as possible after completing 90 semester credit hours. The college in which the student is enrolled is responsible for preparing a Degree Audit and Advisement System (DAAS) worksheet to see that uniform requirements for each degree are met.

The Degree Audit and Advisement System worksheet is not intended as a substitute for academic advisement. Students seeking information about remaining degree requirements should consult with their academic advisor and refer to the DAAS worksheet on a regular basis.

The student is responsible for completing all coursework and providing any adjustments to the DAAS worksheet to the college in which the student is enrolled by the end of the term in which graduation is expected.

A degree candidate waiting until the final semester of enrollment to apply for graduation must apply no later than September 15 for the Fall Semester, February 1 for the Spring Semester, or June 15 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.

Students who apply for the degree in a given term but do not fulfill all requirements must submit a new degree application with the appropriate fee before the deadline for the next term in which they intend to graduate.

Graduation with Honors

Undergraduate students who complete degree requirements and who have earned an overall grade point average of 3.5 in all semester credit hours attempted at UTSA are eligible for graduation *cum laude*.

Those who have earned a grade point average of 3.75 in all semester credit hours attempted at UTSA are eligible for graduation *magna cum laude*.

Those who have earned a grade point average of 3.9 in all semester credit hours attempted at UTSA are eligible for graduation *summa cum laude*.

Candidates who have completed some portion of the requirements for the baccalaureate degree at other collegiate institutions may graduate with honors when they meet the requirements listed above, in addition to completing a minimum of 45 semester credit hours at UTSA by the time of graduation (excluding courses challenged by examination or taken on a credit/no-credit basis in which only the symbol “CR” is recorded).

No degree candidate shall be eligible for graduation with honors if, at the time of graduation, disciplinary action has been taken against the student by the University.
TABLE OF CONTENTS
CHAPTER TWO
COLLEGE OF BUSINESS

College of Business........................................................................................................................................ 19
  B.B.A. in General Business .............................................................................................................................. 20
  Minor in General Business ............................................................................................................................... 22
Division of Accounting and Information Systems ...................................................................................... 23
  B.B.A. in Accounting .................................................................................................................................... 23
  B.B.A. in Information Systems .......................................................................................................................... 28
Division of Economics and Finance ............................................................................................................ 33
  B.B.A. in Economics ...................................................................................................................................... 33
  B.A. in Economics ........................................................................................................................................ 35
  Minor in Economics ...................................................................................................................................... 36
  B.B.A. in Finance .......................................................................................................................................... 39
  Minor in Finance .......................................................................................................................................... 41
  B.B.A. in Construction Management ........................................................................................................... 41
Division of Management and Marketing .................................................................................................... 49
  B.B.A. in Management
    International Business Concentration ...................................................................................................... 49
    Leadership and Administration Concentration .......................................................................................... 52
    Small Business and Entrepreneurship Concentration .............................................................................. 54
  Minor in Management ................................................................................................................................... 56
  B.B.A. in Human Resource Management ..................................................................................................... 57
  B.B.A. in Tourism Management ..................................................................................................................... 62
  B.B.A. in Management Science ....................................................................................................................... 66
  Minor in Management Science ...................................................................................................................... 69
  B.B.A. in Marketing ....................................................................................................................................... 71
  Minor in Marketing ........................................................................................................................................ 74
CHAPTER 2

COLLEGE OF BUSINESS

Mission Statement

The mission of the College of Business is to offer graduate and undergraduate programs of high quality that meet the needs of students, in terms of their general education as well as in their preparation for productive and rewarding professional careers. This focus requires that the college be alert and responsive to local, regional, and national issues and to the needs of business, government, and the community at large. Its faculty approaches the challenge of education not only through their classroom and advising efforts but by active scholarship in their respective disciplines and through service to the University, their profession, and the community.


All undergraduate degrees in the College of Business are accredited by AACSB, the International Association of Management Education, and conform to its recommended guidelines. Consistent with AACSB guidelines, at least 50 percent of the business semester credit hours required for the College of Business degree must be taken at UTSA.

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.

Declaration of a major in the College of Business, for students pursuing the Bachelor of Business Administration degree, is limited to students who meet the following minimum requirements:

1. Completion of 45 semester credit hours
2. Cumulative grade point average of 2.5 (2.0 for the B.B.A. in General Business)
3. Completion of the following eight courses or their equivalents with a grade point average of 2.25 (2.0 for the B.B.A. in General Business):

   ACC  2013 Principles of Accounting I
   ACC  2033 Principles of Accounting II
   ECO  2013 Introductory Macroeconomics
   ECO  2023 Introductory Microeconomics
   MAT  1033 Algebra with Calculus for Business
   MS   1013 Quantitative Methods in Business
   IS   3003 Principles of Information Systems for Management
   COM  1043 Introduction to Communication

Once these requirements are met, a student must request a declaration of major through the Undergraduate Business Advising Office.

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 1043 Introduction to Communication | 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 3003 Principles of Information Systems for Management | 3
MAT 1033 Algebra with Calculus for Business (Domain I) | 3
MGT 3013 Introduction to Organization Theory, Behavior, and Management | 3
MGT 3043 Business Communications | 3
MKT 4893 Management Strategy and Policy (taken in semester of graduation) | 3
MS 3013 Principles of Marketing | 3
MS 3033 Management Science and Production Management | 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric** (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
| **Domain I: Mathematics and Science** | **Mathematics** (3 semester credit hours)  
MAT 1033 Algebra with Calculus for Business  
**Science** (6 semester credit hours)  
Three hours from Level One and three hours from Level Two 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.

<table>
<thead>
<tr>
<th>Course or Requirement</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2013 Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACC 2033 Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>BLW 3013 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>COM 1043 Introduction to Communication</td>
<td>3</td>
</tr>
<tr>
<td>ECO 2013 Introductory Macroeconomics (Domain II)</td>
<td>3</td>
</tr>
<tr>
<td>ECO 2023 Introductory Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>FIN 3013 Principles of Business Finance</td>
<td>3</td>
</tr>
<tr>
<td>GBA 2013 Social and Ethical Issues in Business</td>
<td>3</td>
</tr>
<tr>
<td>IS 3003 Principles of Information Systems for Management</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1033 Algebra with Calculus for Business (Domain I)</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3013 Introduction to Organization Theory, Behavior, and Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3043 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4893 Management Strategy and Policy (taken in semester of graduation)</td>
<td>3</td>
</tr>
<tr>
<td>MKT 3013 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MS 1013 Quantitative Methods in Business</td>
<td>3</td>
</tr>
<tr>
<td>MS 3033 Management Science and Production Management</td>
<td>3</td>
</tr>
</tbody>
</table>

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. 27 semester credit hours of required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 3033</td>
<td>Economics of Managerial Decisions</td>
</tr>
<tr>
<td>FIN 3313</td>
<td>Money and Banking</td>
</tr>
<tr>
<td>BLW 3023</td>
<td>Business Organizations and Commercial Law</td>
</tr>
<tr>
<td>MGT 3023</td>
<td>Organizational Behavior</td>
</tr>
<tr>
<td>MKT 4013</td>
<td>Marketing Management</td>
</tr>
</tbody>
</table>

12 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 General Business

A Minor in General Business is open to all nonbusiness majors (including B.A. in Economics) in the University. Business majors are not eligible to pursue a Minor in General Business. 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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2003</td>
<td>Foundations of Accounting</td>
</tr>
<tr>
<td>BLW 3013</td>
<td>Business Law</td>
</tr>
<tr>
<td>ECO 2023</td>
<td>Introductory Microeconomics</td>
</tr>
<tr>
<td>FIN 3003</td>
<td>Survey of Finance</td>
</tr>
<tr>
<td>MGT 2003</td>
<td>Introduction to Business</td>
</tr>
<tr>
<td>MGT 3013</td>
<td>Introduction to Organization Theory, Behavior, and Management</td>
</tr>
<tr>
<td>MKT 3013</td>
<td>Principles of Marketing</td>
</tr>
</tbody>
</table>

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
(1,2,3-0) 1, 2, or 3 hours credit.
A seminar that engages students in a discussion of leadership and responsibility in business and other organizations.
DIVISION OF ACCOUNTING AND INFORMATION SYSTEMS

Mission Statement

The mission of the Division of Accounting and Information Systems is to offer graduate and undergraduate accounting and information systems programs of high quality, which meet the needs of the students preparing for professional careers in these fields. This mission includes providing a broad-based education as well as education in current general business, accounting, and information systems topics. The division is responsive to the needs of employers and other constituents of its programs. The division 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 and information systems programs assist in accomplishing this mission through a planned integration of their teaching, intellectual, and service contribution.

The Division of Accounting and Information Systems offers undergraduate degrees in Accounting and Information Systems.

DIVISION HONORS

The Division of Accounting and 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 Division Academic Policy and Curriculum Committee (APCC) 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, a minimum grade point average 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 APCC. Students interested in this program should contact the APCC through the Division of Accounting and Information Systems office for additional information. Division 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric** (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
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.

<table>
<thead>
<tr>
<th>Domain I: Mathematics and Science</th>
<th>Mathematics (3 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MAT 1033 Algebra with Calculus for Business</td>
</tr>
<tr>
<td>Science (6 semester credit hours)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Three hours from Level One and three hours from Level Two will satisfy this core requirement.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain II: Society and Culture</th>
<th>United States History and Diversity (6 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any six hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>Political Studies (6 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any six hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>Social and Behavioral Sciences (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>Economics (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>ECO 2013 Introductory Macroeconomics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain III: Literature and the Arts</th>
<th>Literature (3 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>The Arts (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain IV: Interdisciplinary Studies</th>
<th>(3 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>

### Course or Requirement:

<table>
<thead>
<tr>
<th>Course or Requirement</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2013</td>
<td>Principles of Accounting I</td>
</tr>
<tr>
<td>ACC 2033</td>
<td>Principles of Accounting II</td>
</tr>
<tr>
<td>BLW 3013</td>
<td>Business Law</td>
</tr>
<tr>
<td>COM 1043</td>
<td>Introduction to Communication</td>
</tr>
<tr>
<td>ECO 2013</td>
<td>Introductory Macroeconomics (Domain II)</td>
</tr>
<tr>
<td>ECO 2023</td>
<td>Introductory Microeconomics</td>
</tr>
<tr>
<td>FIN 3013</td>
<td>Principles of Business Finance</td>
</tr>
<tr>
<td>GBA 2013</td>
<td>Social and Ethical Issues in Business</td>
</tr>
<tr>
<td>IS 3003</td>
<td>Principles of Information Systems for Management</td>
</tr>
<tr>
<td>MAT 1033</td>
<td>Algebra with Calculus for Business (Domain I)</td>
</tr>
<tr>
<td>MGT 3013</td>
<td>Introduction to Organization Theory, Behavior, and Management</td>
</tr>
<tr>
<td>MGT 3043</td>
<td>Business Communications</td>
</tr>
<tr>
<td>MGT 4893</td>
<td>Management Strategy and Policy (taken in semester of graduation)</td>
</tr>
<tr>
<td>MKT 3013</td>
<td>Principles of Marketing</td>
</tr>
<tr>
<td>MS 1013</td>
<td>Quantitative Methods in Business</td>
</tr>
<tr>
<td>MS 3033</td>
<td>Management Science and Production Management</td>
</tr>
</tbody>
</table>
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 accounting courses in the major:

- ACC 3023 Financial Reporting I
- ACC 3043 Federal Income Taxation I
- ACC 3113 Accounting Information Systems I
- ACC 3123 Cost Analysis
- ACC 4013 Principles of Auditing

B. 9 semester credit hours in an accounting track:

**Traditional/Financial Reporting Track:**

- ACC 3033 Financial Reporting II
- ACC 4153 Federal Income Taxation II

Electives (one course required): ACC 4933 Accounting Internship or an upper-division accounting course

**Managerial/Systems Track:**

- ACC 4613 Accounting Information Systems II
- ACC 4623 Managerial Accounting

Electives (one course required): ACC 4933 Accounting Internship, an upper-division accounting course, or an approved upper-division information systems course (excluding IS 3003)

C. 3 semester credit hours of support work:

- ENG 2413 Technical Writing

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

Notes for students who intend to take the CPA examination:

1. Because of the topical coverage of the CPA examination, BLW 3023 Business Organizations and Commercial Law is recommended as an 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 512/305-7870 or visit their website at http://www.tsbpa.state.tx.us.

**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  
(3-0) 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 flows. The course is designed for all business students, whether future users or preparers of accounting information. [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 Financial Reporting 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 Financial Reporting II  
(3-0) 3 hours credit. Prerequisite: A grade of “C” or better in ACC 3023.  
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. Prerequisite: A grade of “C” or better in ACC 3023.  
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.  
Examines the role of accounting information systems within the organizational structure. A conceptual framework for integrating elements required to support accounting information systems. (Formerly IS 3013. Credit cannot be earned for both ACC 3113 and IS 3013.)

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.

3143 International Accounting  
(3-0) 3 hours credit. Prerequisite: ACC 2033.  
A comparative study of international financial accounting, managerial accounting, and auditing practices. Specific accounting issues include foreign currency translation and inflation accounting. May not be applied to a major in accounting.

4013 Principles of Auditing  
(3-0) 3 hours credit. Prerequisites: A grade of “C” or better in both ACC 3023 and 3113.  
A study of auditing as an independent appraisal function within an organization for examining and evaluating organizational activities as a service to management. Topics include evaluation of control adequacy and effectiveness, risk identification and assessment, safeguarding of assets, information systems reliability, performance review, applications of sampling methodologies, and fraud prevention and detection.
4033 **Advanced Financial Accounting Topics**  
(3-0) 3 hours credit. Prerequisite: A grade of “C” or better in ACC 3033.  
A study of advanced topics such as business combinations and consolidations, partnerships, and foreign currency translation. (Formerly ACC 3063. Credit cannot be earned for both ACC 4033 and ACC 3063.)

4053 **Accounting for Governmental and Not-for-Profit Organizations**  
(3-0) 3 hours credit. Prerequisite: ACC 3033.  
A study of accounting, budgeting, fiscal procedures, and financial records of governmental agencies and private not-for-profit organizations.

4073 **Financial Reporting III**  
(3-0) 3 hours credit. Prerequisite: A grade of “C” or better in ACC 3033.  
A study of specialized financial reporting topics, including the application of professional standards and case-study analyses.

4083 **Budgeting, Planning, and Forecasting**  
(3-0) 3 hours credit. Prerequisite: ACC 3123 or the equivalent.  
A study of advanced cost-accounting topics (managerial, behavioral, and quantitative) for profit planning and control. Specific forecasting models and computer applications are addressed.

4153 **Federal Income Taxation II**  
(3-0) 3 hours credit. Prerequisite: A grade of “C” or better in ACC 3043.  
A study of the taxation of C and S Corporations and Partnerships. Topics include the formation, income taxation, and liquidation of corporations and partnerships.

4613 **Accounting Information Systems II**  
(3-0) 3 hours credit. Prerequisite: A grade of “C” or better in ACC 3113.  
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.

4623 **Managerial Accounting**  
(3-0) 3 hours credit. Prerequisite: A grade of “C” or better in ACC 3123.  
A study of business management’s internal accounting information needs as they pertain to economic decision making, planning, and control. Topics include cost behavior, cost accumulation alternatives, transfer pricing, cost allocation issues, and budgeting and performance measurement.

4911-3 **Independent Study**  
1 to 3 hours credit. Prerequisite: Permission in writing from the instructor, the Division Director, and the Dean of the College of Business. See Undergraduate Business Advising Office 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, an overall 2.5 grade point average, and permission in writing from the instructor, the Division Director, and the Dean of the College of Business. See Undergraduate Business Advising Office 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. Internships may be repeated once (for a total of 6 semester credit hours) provided the internships are with different organizations.
4993  **Honors Thesis**  
3 hours credit. Prerequisite: Enrollment limited to honors program students with sponsorship by a division faculty member.  
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.

**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 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 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric** (6 semester credit hours) | **Mathematics** (3 semester credit hours)  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines  
MAT 1033 Algebra with Calculus for Business  
Science (6 semester credit hours)  
Three hours from Level One and three hours from Level Two will satisfy this core requirement. |
| **Domain I: Mathematics and Science** | **United States History and Diversity** (6 semester credit hours)  
Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
**Political Studies** (6 semester credit hours)  
Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
**Social and Behavioral Sciences** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
**Economics** (3 semester credit hours)  
ECO 2013 Introductory Macroeconomics |
| **Domain II: Society and Culture** | **Literature** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
**The Arts** (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.

<table>
<thead>
<tr>
<th>Course or Requirement</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2013 Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACC 2033 Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>BLW 3013 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>COM 1043 Introduction to Communication</td>
<td>3</td>
</tr>
<tr>
<td>ECO 2013 Introductory Macroeconomics (Domain II)</td>
<td>3</td>
</tr>
<tr>
<td>ECO 2023 Introductory Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>GBA 2013 Social and Ethical Issues in Business</td>
<td>3</td>
</tr>
<tr>
<td>IS 3003 Principles of Information Systems for Management</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1033 Algebra with Calculus for Business (Domain I)</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3013 Introduction to Organization Theory, Behavior, and Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3043 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4893 Management Strategy and Policy (taken in semester of graduation)</td>
<td>3</td>
</tr>
<tr>
<td>MS 1013 Quantitative Methods in Business</td>
<td>3</td>
</tr>
<tr>
<td>MS 3033 Management Science and Production Management</td>
<td>3</td>
</tr>
</tbody>
</table>

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 4053 Analysis and Design of Information Systems
- IS 4063 Advanced Topics in Information Systems
- IS 4123 Introduction to Telecommunications for Business

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

B. 6 semester credit hours of information systems support work:

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

C. 3 semester credit hours of support work:

- MGT 3023 Organizational Behavior

D. 6 semester credit hours of electives taken outside the College of Business
INTRODUCTION TO COMPUTER CONCEPTS FOR INFORMATION SYSTEMS

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, sequential file access and update, and modular design.

DATA STRUCTURES AND FILE PROCESSING

2043 Data Structures and File Processing
(3-0) 3 hours credit.
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.

PRINCIPLES OF INFORMATION SYSTEMS FOR MANAGEMENT

3003 Principles of Information Systems for Management
(3-0) 3 hours credit. Prerequisite: Familiarity with spreadsheet software.
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.

DATABASE MANAGEMENT FOR BUSINESS

3053 Database Management for Business
(3-0) 3 hours credit.
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.

DATABASE MANAGEMENT FOR 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.

APPLICATION DEVELOPMENT

3073 Application Development
(3-0) 3 hours credit. Prerequisite: IS 2043.
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.

COMPUTER GRAPHICS

3083 Computer Graphics
(3-0) 3 hours credit.
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.

COMPUTER SUPPORT OF GROUPS

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.
4053  Analysis and Design of Information Systems  
(3-0) 3 hours credit. Prerequisite: 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. Prerequisite: 15 semester credit hours of information systems courses. (Excludes 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. Prerequisite: MGT 3023.  
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.

4123  Introduction to Telecommunications for Business  
(3-0) 3 hours credit. Prerequisite: 6 semester credit hours of information systems courses. (Excludes IS 3003.)  
Includes an in-depth look at basic telecommunications terminology and concepts. Introduction to voice and data networks, signaling, and modulation/multiplexing. Network topologies and protocol fundamentals and architectures (including the OSI model, TCP/IP, and SNA) are presented and compared. Frame Relay, X.25, and ATM packet technologies are introduced. Network security issues are explored.

4133  Advanced Telecommunications for Business  
(3-0) 3 hours credit. Prerequisite: IS 4123.  
This course provides a foundation in the issues and principles of network design and management, including network planning, initialization, and configuration management; fault management; usage accounting; and network security. Current networking and network management products and the role played by network management protocols and products will be discussed.

4143  Wide Area Networks  
(3-0) 3 hours of credit. Prerequisite: IS 4123.  
This course explores the telecommunication technologies used in wide area networks. Technologies such as frame relay, asynchronous transfer mode and digital subscriber lines will be studied. The role of the common carriers will also be discussed. The overall objective of the course will be to study the wide area technologies and their impact on business.

4153  Electronic Commerce  
(3-0) 3 hours of credit. Prerequisite IS 3073 or permission of instructor.  
A study of issues related to the use of electronic networks to facilitate inter- and intraorganizational business activities. Topics include the nature of the network, of business activities, and of the emerging technologies relevant to the business activities. Current impediments to expansion or implementation of electronic commerce and the technological, social, and policy changes needed to overcome these impediments will also be discussed.

4163  Advanced Programming Concepts  
(3-0) 3 hours credit. Prerequisite: 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. Prerequisite: 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.

4911-3 Independent Study
1 to 3 hours credit. Prerequisite: Permission in writing from the instructor, the Division Director, and the Dean of the College of Business. See Undergraduate Business Advising Office 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: 9 semester credit hours of information systems or business data systems courses (excluding IS 3003), an overall 2.5 grade point average, and permission in writing from the instructor, the Division Director, and the Dean of the College of Business. See Undergraduate Business Advising Office 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.

4953 Special Studies in Information Systems
(3-0) 3 hours credit. Prerequisite: 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: Enrollment limited to honors program students with sponsorship by a division faculty member. 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.
DIVISION OF ECONOMICS AND FINANCE

The Division of Economics and Finance offers both a Bachelor of Arts degree and a Bachelor of Business Administration degree in Economics, a Bachelor of Business Administration degree in Finance, and a Bachelor of Business Administration degree in Construction Management. 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. 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 division 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 division also offers minors in finance and economics that are available to students with majors in other business-related areas as well as non-business majors.

DIVISION HONORS

The Division of Economics and 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 Division Academic Policy and Curriculum Committee (APCC) 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 APCC. Students interested in this program should contact the Division of Economics and Finance office for additional information. Division 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 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric** (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
| **Domain I: Mathematics and Science** | **Mathematics** (3 semester credit hours)  
MAT 1033 Algebra with Calculus for Business  
**Science** (6 semester credit hours)  
Three hours from Level One and three hours from Level Two 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.

<table>
<thead>
<tr>
<th>Course or Requirement</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2013 Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACC 2033 Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>BLW 3013 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>COM 1043 Introduction to Communication</td>
<td>3</td>
</tr>
<tr>
<td>ECO 2013 Introductory Macroeconomics (Domain II)</td>
<td>3</td>
</tr>
<tr>
<td>ECO 2023 Introductory Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>FIN 3013 Principles of Business Finance</td>
<td>3</td>
</tr>
<tr>
<td>GBA 2013 Social and Ethical Issues in Business</td>
<td>3</td>
</tr>
<tr>
<td>IS 3003 Principles of Information Systems for Management</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1033 Algebra with Calculus for Business (Domain I)</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3013 Introduction to Organization Theory, Behavior, and Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3043 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4893 Management Strategy and Policy (taken in semester of graduation)</td>
<td>3</td>
</tr>
<tr>
<td>MKT 3013 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MS 1013 Quantitative Methods in Business</td>
<td>3</td>
</tr>
<tr>
<td>MS 3033 Management Science and Production Management</td>
<td>3</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 3033</td>
<td>Economics of Managerial Decisions</td>
</tr>
<tr>
<td>ECO 3053</td>
<td>Aggregate Economic Analysis</td>
</tr>
<tr>
<td>ECO 3113</td>
<td>Introduction to Mathematical Economics</td>
</tr>
<tr>
<td>ECO 3123</td>
<td>Forecasting Techniques in Business and Economics</td>
</tr>
</tbody>
</table>

9 additional semester credit hours of upper-division electives in economics

B. 15 semester credit hours of support work:

9 semester credit hours of upper-division non-economics College of Business electives

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

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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric** (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines  |
| **Domain I: Mathematics and Science** | **Mathematics** (3 semester credit hours)  
MAT 1033 Algebra with Calculus for Business  
**Science** (6 semester credit hours)  
Three hours from Level One and three hours from Level Two will satisfy this core requirement.  |
| **Domain II: Society and Culture** | **United States History and Diversity** (6 semester credit hours)  
Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
**Political Studies** (6 semester credit hours)  
Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
**Social and Behavioral Sciences** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
**Economics** (3 semester credit hours)  
ECO 2013 Introductory Macroeconomics  |
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. 30 semester credit hours of required courses in the major:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 2013</td>
<td>Introductory Macroeconomics</td>
</tr>
<tr>
<td>ECO 2023</td>
<td>Introductory Microeconomics</td>
</tr>
<tr>
<td>ECO 3013</td>
<td>Theory of Price</td>
</tr>
<tr>
<td>ECO 3053</td>
<td>Aggregate Economic Analysis</td>
</tr>
<tr>
<td>ECO 3113</td>
<td>Introduction to Mathematical Economics</td>
</tr>
<tr>
<td>ECO 3123</td>
<td>Forecasting Techniques in Business and Economics</td>
</tr>
</tbody>
</table>

12 additional semester credit hours in economics, as approved by the student’s advisor

B. 6 semester credit hours to be taken as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 1043</td>
<td>Introduction to Communication</td>
</tr>
<tr>
<td>MS 1013</td>
<td>Quantitative Methods in Business</td>
</tr>
</tbody>
</table>

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

D. 30 semester credit hours of free electives

**Minor in Economics**

All students pursuing the Minor in Economics must complete 18 semester credit hours.

A. 6 semester credit hours of required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 2013</td>
<td>Introductory Macroeconomics</td>
</tr>
<tr>
<td>ECO 2023</td>
<td>Introductory Microeconomics</td>
</tr>
</tbody>
</table>

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 Undergraduate Business Advising Office.
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 MAT 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 MAT 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 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, 3033, 3053, or the equivalent; MAT 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: MAT 1033, MS 1013, and IS 3003, 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.
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, 2013, 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, 2013, 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, 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, 2013, 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, 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. Prerequisites: One of the following: ECO 2003, 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, 2013, 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, 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, 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.

4473 Doing Business in Mexico
(3-0) 3 hours credit.
An overview of international business activities in Mexico, including such topics as the economics of Mexico, the Mexican legal system, NAFTA, Mexican accounting and taxation, international joint ventures, cross-cultural differences, and business protocol.
4913 Independent Study
3 hours credit. Prerequisites: Permission in writing (form available) of the instructor, the student’s advisor, the
Division Director, 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 Division Director, and the Dean of the College of
Business. See Undergraduate Business Advising Office 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 Division Director 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 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 honors program students with sponsorship by a division faculty
member.
Supervised research and preparation of an honors thesis. May be repeated once for credit with advisor’s approval.

Bachelor of Business Administration Degree in Finance

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

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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rhetoric</strong> (6 semester credit hours)</td>
<td>All students must take the following six hours to meet this core requirement: ENG 1013 Freshman Composition ENG 1023 Discourse across the Disciplines</td>
</tr>
<tr>
<td><strong>Domain I: Mathematics and Science</strong></td>
<td><strong>Mathematics</strong> (3 semester credit hours) MAT 1033 Algebra with Calculus for Business <strong>Science</strong> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Domain I: Core Curriculum</th>
<th>Course or Requirement</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2013 Principles of Accounting I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ACC 2033 Principles of Accounting II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BLW 3013 Business Law</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COM 1043 Introduction to Communication</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ECO 2013 Introductory Macroeconomics (Domain II)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ECO 2023 Introductory Microeconomics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>FIN 3013 Principles of Business Finance</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GBA 2013 Social and Ethical Issues in Business</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>IS 3003 Principles of Information Systems for Management</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAT 1033 Algebra with Calculus for Business (Domain I)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MGT 3013 Introduction to Organization Theory, Behavior, and Management</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MGT 3043 Business Communications</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MGT 4893 Management Strategy and Policy (taken in semester of graduation)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MKT 3013 Principles of Marketing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MS 1013 Quantitative Methods in Business</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MS 3033 Management Science and Production Management</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

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 upper-division semester credit hours in the major:

- FIN 3033 Principles of Investment
- FIN 3313 Money and Banking

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

B. 12 semester credit hours of support work:

- ACC 3023 Financial Reporting I
- ACC 3033 Financial Reporting II
- ECO 3033 Economics of Managerial Decisions

3 semester credit hours of College of Business upper-division electives

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

Minor in Finance

All students pursuing the Minor in Finance 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
- MAT 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 Undergraduate Business Advising Office.

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 123.

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 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 5-10 of this catalog.
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.

### Core Curriculum Requirements

<table>
<thead>
<tr>
<th>Course or Requirement</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2013 Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACC 2033 Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>BLW 3013 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>COM 1043 Introduction to Communication</td>
<td>3</td>
</tr>
<tr>
<td>ECO 2013 Introductory Macroeconomics (Domain II)</td>
<td>3</td>
</tr>
<tr>
<td>ECO 2023 Introductory Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>FIN 3013 Principles of Business Finance</td>
<td>3</td>
</tr>
</tbody>
</table>
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
FIN 3433  Principles of Real Estate
FIN 4713  Mortgage Banking and Real Estate Finance
BLW 3523  Real Estate Law

B. 15 semester credit hours of support work:

ARC 2213  Construction Materials and Concepts I
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:

ARC 4223  Topics in Design Computing
ARC 4233  Computer Projects in Design
ARC 4513  Professional Practice and Ethics
ARC 4423  History and Theory of Urban Form
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  Organizational Behavior
MGT 4883  Small Business Management
MKT 3063  Personal Selling
MKT 3083  Marketing Research
SOC 3033  Population Dynamics
SOC 3103  Complex Organizations
SPN 3153  Spanish for the Business/Management Fields
SSC 3113  The Contemporary City
SSC 3123  Urban Environmental Values
COURSE DESCRIPTIONS
FINANCE
(FIN)

2003 Consumer Finance in American Society
(3-0) 3 hours credit. 
Examines various aspects of consumer finance choices in a market economy, including broad coverage of the following consumer decisions: assets such as bank accounts; major purchases such as housing and vehicles; management of credit cards and consumer loans; selecting life, health, and property insurance; investing in stocks, bonds, and mutual funds; and retirement, estate, and tax planning. This course may not be applied toward a major in finance but may be counted as a free elective for College of Business students. [TCCN: BUSI 1307.]

3003 Survey of Finance
(3-0) 3 hours credit. Prerequisite: ACC 2003. 
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 in finance but may be counted as a free elective for College of Business students.

3013 Principles of Business Finance
(3-0) 3 hours credit. Prerequisites: ACC 2013, ACC 2033, and MAT 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.

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 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. Prerequisite: 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. Prerequisite: 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. Prerequisite: 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. Prerequisite: 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: FIN 3013 and 3433 or 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: FIN 3013 and 3433 or 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 3503 and FIN 4723.)
4813  **Property-Liability Insurance Finance**  
(3-0) 3 hours credit. Prerequisite: 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. Prerequisite: 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: FIN 3013 and 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: 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: Completion of the 15 upper-division semester credit hours in the major and permission in writing from the instructor, the Division Director, and the Dean of the College of Business. See Undergraduate Business Advising Office 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: Permission in writing from the instructor, the Division Director, and the Dean of the College of Business. See Undergraduate Business Advising Office 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: 12 semester credit hours of upper-division finance courses, an overall 2.5 grade point average, and permission in writing from the instructor, the Division Director, and the Dean of the College of Business. See Undergraduate Business Advising Office 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 Division Director 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. 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 honors program students with sponsorship by a division faculty member.
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. This course may be taken in lieu of BLW 3013.
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.
Legal analysis of contemporary environment of business law including the common law, legal reasoning, court systems and procedure, 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.
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. Prerequisite: 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. Prerequisite: Permission in writing from the instructor, the Division Director, and the Dean of the College of Business. See Undergraduate Business Advising Office 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. 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.
DIVISION OF MANAGEMENT AND MARKETING

DIVISION HONORS

The Division of Management and Marketing 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 mentorship.

Selection for honors designation is based on the student’s academic performance and recommendation by the Division Academic Policy and Curriculum Committee (APCC) 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 APCC. Students interested in this program should contact the APCC through the Division of Management and Marketing office for additional information. Division honors can be attained independently of and in addition to University Honors.

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 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rhetoric</strong> (6 semester credit hours)</td>
<td>All students must take the following six hours to meet this core requirement: ENG 1013 Freshman Composition ENG 1023 Discourse across the Disciplines</td>
</tr>
<tr>
<td><strong>Domain I: Mathematics and Science</strong></td>
<td><strong>Mathematics</strong> (3 semester credit hours) MAT 1033 Algebra with Calculus for Business <strong>Science</strong> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Course or Requirement</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2013 Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACC 2033 Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>BLW 3013 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>COM 1043 Introduction to Communication</td>
<td>3</td>
</tr>
<tr>
<td>ECO 2013 Introductory Macroeconomics (Domain II)</td>
<td>3</td>
</tr>
<tr>
<td>ECO 2023 Introductory Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>FIN 3013 Principles of Business Finance</td>
<td>3</td>
</tr>
<tr>
<td>GBA 2013 Social and Ethical Issues in Business</td>
<td>3</td>
</tr>
<tr>
<td>IS 3003 Principles of Information Systems for Management</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1033 Algebra with Calculus for Business (Domain I)</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3013 Introduction to Organization Theory, Behavior, and Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3043 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4893 Management Strategy and Policy (taken in semester of graduation)</td>
<td>3</td>
</tr>
<tr>
<td>MKT 3013 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MS 1013 Quantitative Methods in Business</td>
<td>3</td>
</tr>
<tr>
<td>MS 3033 Management Science and Production Management</td>
<td>3</td>
</tr>
</tbody>
</table>
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 College of Business:

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

9 semester credit hours selected from the following:

- ACC 3143 International Accounting
- 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 Organizational Behavior
- MKT 4953 Special Studies in Marketing (international topics only)

or other international business electives as approved by Division of Management and Marketing faculty through the Undergraduate Business Advising Office.

B. 12 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, non-business 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 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 Policy
- IDS 2213 World Civilization since the Fifteenth Century*
3. 3 semester credit hours from the following:

- POL 2083  Current Issues in World Politics
- 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

4. Plus 3 semester credit hours from any of the above courses listed in sections B.1, B.2, and B.3 or other international courses, including foreign languages, offered by the University and approved by the Division of Management and Marketing faculty through the Undergraduate Business Advising Office.

C. It is strongly recommended that students combine options available in the Core Curriculum with section 4 (above) to accommodate as many hours of foreign language study as possible in the 120-semester-credit-hour program.

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

**Bachelor of Business Administration Degree in Management with a Leadership and Administration 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 Management with a Leadership and Administration 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 might 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric (6 semester credit hours)** | All students must take the following six hours to meet this core requirement: ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
| **Domain I: Mathematics and Science** | **Mathematics** (3 semester credit hours)  
MAT 1033 Algebra with Calculus for Business  
**Science** (6 semester credit hours)  
Three hours from Level One and three hours from Level Two 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.

<table>
<thead>
<tr>
<th>Domain II: Society and Culture</th>
<th>United States History and Diversity (6 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any six hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>Political Studies (6 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any six hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>Social and Behavioral Sciences (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>Economics (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>ECO 2013 Introductory Macroeconomics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain III: Literature and the Arts</th>
<th>Literature (3 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>The Arts (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain IV: Interdisciplinary Studies</th>
<th>(3 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>COM 2343 Introduction to Mass Communication</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course or Requirement</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2013</td>
<td>Principles of Accounting I</td>
</tr>
<tr>
<td>ACC 2033</td>
<td>Principles of Accounting II</td>
</tr>
<tr>
<td>BLW 3013</td>
<td>Business Law</td>
</tr>
<tr>
<td>COM 1043</td>
<td>Introduction to Communication</td>
</tr>
<tr>
<td>ECO 2013</td>
<td>Introductory Macroeconomics (Domain II)</td>
</tr>
<tr>
<td>ECO 2023</td>
<td>Introductory Microeconomics</td>
</tr>
<tr>
<td>FIN 3013</td>
<td>Principles of Business Finance</td>
</tr>
<tr>
<td>GBA 2013</td>
<td>Social and Ethical Issues in Business</td>
</tr>
<tr>
<td>IS 3003</td>
<td>Principles of Information Systems for Management</td>
</tr>
<tr>
<td>MAT 1033</td>
<td>Algebra with Calculus for Business (Domain I)</td>
</tr>
<tr>
<td>MGT 3013</td>
<td>Introduction to Organization Theory, Behavior, and Management</td>
</tr>
<tr>
<td>MGT 3043</td>
<td>Business Communications</td>
</tr>
<tr>
<td>MGT 4893</td>
<td>Management Strategy and Policy (taken in semester of graduation)</td>
</tr>
<tr>
<td>MKT 3013</td>
<td>Principles of Marketing</td>
</tr>
<tr>
<td>MS 1013</td>
<td>Quantitative Methods in Business</td>
</tr>
<tr>
<td>MS 3033</td>
<td>Management Science and Production Management</td>
</tr>
</tbody>
</table>

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 Organizational Behavior
- MGT 4073 International Management
- MGT 4203 Business and Society
- MGT 4213 Advanced Organization Theory
- MS 4343 Production/Operations Management
  or
- MS 4363 Quality Management and Control

B. 6 semester credit hours of support work within the College of Business:

- ACC 2043 Introduction to Accounting Topics
- FIN 3313 Money and Banking

C. 3 semester credit hours of communication chosen from the following:

- COM 2113 Public Speaking
- COM 2343 Introduction to Mass Communication
- Any upper-division course in communication (COM)

D. 6 semester credit hours of College of Business upper-division electives, in addition to the Core Curriculum and CBK requirements.

E. 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 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| Rhetoric (6 semester credit hours) | All students must take the following six hours to meet this core requirement: ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
## 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.

<table>
<thead>
<tr>
<th>Course or Requirement</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2013 Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACC 2033 Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>BLW 3013 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>COM 1043 Introduction to Communication</td>
<td>3</td>
</tr>
<tr>
<td>ECO 2013 Introductory Macroeconomics (Domain II)</td>
<td>3</td>
</tr>
<tr>
<td>ECO 2023 Introductory Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>FIN 3013 Principles of Business Finance</td>
<td>3</td>
</tr>
<tr>
<td>GBA 2013 Social and Ethical Issues in Business</td>
<td>3</td>
</tr>
<tr>
<td>IS 3003 Principles of Information Systems for Management</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1033 Algebra with Calculus for Business (Domain I)</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3013 Introduction to Organization Theory, Behavior, and Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3043 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4893 Management Strategy and Policy (taken in semester of graduation)</td>
<td>3</td>
</tr>
<tr>
<td>MKT 3013 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MS 1013 Quantitative Methods in Business</td>
<td>3</td>
</tr>
<tr>
<td>MS 3033 Management Science and Production Management</td>
<td>3</td>
</tr>
</tbody>
</table>
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 College of Business:

- MGT 2003  Introduction to Business
- MKT 3113  Retailing
- MGT 3613  Personnel Administration
- MGT 4873  Entrepreneurship
- MGT 4883  Small Business Management

B. 9 semester credit hours of support work within the College of Business as follows:

- ECO 3053  Aggregate Economic Analysis
- FIN 3313  Money and Banking
- BLW 3023  Business Organizations and Commercial Law

or courses as approved by the faculty of the Division of Management and Marketing through the Undergraduate Business Advising Office

C. 6 semester credit hours of support work:

- COM 2113  Public Speaking
- ENG 2413  Technical Writing

D. 6 semester credit hours of practicum:

- MGT 4903  Practicum in Small Business
  Practicum is repeated for a total of 6 semester credit hours.

**Minor in Management**

The Minor in Management is for business majors only. All students pursuing the minor must complete 18 semester credit hours.

A. 9 semester credit hours of required courses:

- MGT 3013  Introduction to Organization Theory, Behavior, and Management
- MGT 3023  Organizational Behavior
- MGT 3043  Business Communications

B. 9 semester credit hours selected from the following:

- MGT 3123  Organizational Communication
- MGT 3253  Interpersonal Communication
- MGT 3613  Personnel Administration
- MGT 4073  International Management
- MGT 4203  Business and Society
- MGT 4213  Advanced Organization Theory
- MGT 4233  Current Topics in Leadership and Administration
- MGT 4883  Small Business Management
To declare a Minor in Management and seek approval of courses, students should consult any full-time management faculty. Advisement and other questions should be directed to the Undergraduate Business Advising Office.

**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 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rhetoric</strong> (6 semester credit hours)</td>
<td>All students must take the following six hours to meet this core requirement: ENG 1013 Freshman Composition ENG 1023 Discourse across the Disciplines</td>
</tr>
<tr>
<td><strong>Domain I: Mathematics and Science</strong></td>
<td><strong>Mathematics</strong> (3 semester credit hours) MAT 1033 Algebra with Calculus for Business <strong>Science</strong> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.</td>
</tr>
<tr>
<td><strong>Domain II: Society and Culture</strong></td>
<td><strong>United States History and Diversity</strong> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <strong>Political Studies</strong> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <strong>Social and Behavioral Sciences</strong> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <strong>Economics</strong> (3 semester credit hours) ECO 2013 Introductory Macroeconomics</td>
</tr>
<tr>
<td><strong>Domain III: Literature and the Arts</strong></td>
<td><strong>Literature</strong> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <strong>The Arts</strong> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Course or Requirement</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2013 Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACC 2033 Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>BLW 3013 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>COM 1043 Introduction to Communication</td>
<td>3</td>
</tr>
<tr>
<td>ECO 2013 Introductory Macroeconomics (Domain II)</td>
<td>3</td>
</tr>
<tr>
<td>ECO 2023 Introductory Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>FIN 3013 Principles of Business Finance</td>
<td>3</td>
</tr>
<tr>
<td>GBA 2013 Social and Ethical Issues in Business</td>
<td>3</td>
</tr>
<tr>
<td>IS 3003 Principles of Information Systems for Management</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1033 Algebra with Calculus for Business (Domain I)</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3013 Introduction to Organization Theory, Behavior, and Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3043 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4893 Management Strategy and Policy (taken in semester of graduation)</td>
<td>3</td>
</tr>
<tr>
<td>MKT 3013 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MS 1013 Quantitative Methods in Business</td>
<td>3</td>
</tr>
<tr>
<td>MS 3033 Management Science and Production Management</td>
<td>3</td>
</tr>
</tbody>
</table>

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 upper-division semester credit hours in the major:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 3613</td>
<td>Personnel Administration</td>
</tr>
<tr>
<td>MGT 4613</td>
<td>Compensation Management</td>
</tr>
<tr>
<td>MGT 4633</td>
<td>Labor Relations</td>
</tr>
<tr>
<td>MGT 4643</td>
<td>Human Resources Law</td>
</tr>
<tr>
<td>MGT 4803</td>
<td>Human Resources Management</td>
</tr>
</tbody>
</table>

6 additional semester credit hours of human resource electives chosen from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 4623</td>
<td>Recruiting and Selection</td>
</tr>
<tr>
<td>MGT 4663</td>
<td>Training and Safety</td>
</tr>
<tr>
<td>MGT 4813</td>
<td>Current Topics in Human Resource Management</td>
</tr>
</tbody>
</table>

To substitute another course for one of these human resource electives, a student must submit a petition to the Undergraduate Business Advising Office and receive approval from a human resource management full-time faculty member before registering for the course.
B. 9 semester credit hours of support work:

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG</td>
<td>2413</td>
<td>Technical Writing</td>
</tr>
<tr>
<td>COM</td>
<td>2113</td>
<td>Public Speaking</td>
</tr>
<tr>
<td>MGT</td>
<td>2033</td>
<td>Management Applications for Personal Computing</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJ</td>
<td>3193</td>
<td>Security Management</td>
</tr>
<tr>
<td>POL</td>
<td>3703</td>
<td>Personnel Administration in the Public Sector</td>
</tr>
<tr>
<td>PSY</td>
<td>3203</td>
<td>Industrial and Organizational Psychology</td>
</tr>
<tr>
<td>SOC</td>
<td>3193</td>
<td>The Sociology of Work and Occupations</td>
</tr>
</tbody>
</table>

To substitute another course for one of these human resource electives or support work, a student must submit a petition to the Undergraduate Business Advising Office and receive approval from a human resource management full-time faculty member before registering for the course.

COURSE DESCRIPTIONS
MANAGEMENT
(MGT)

2003  Introduction to Business
(3-0) 3 hours credit.
This course provides a conceptual overview of the dynamics of business and explores the elements of business operations as well as the ways owners can cope with opportunities and challenges.

2033  Management Applications for Personal Computing
(3-0) 3 hours credit.
The application of personal computer-based software to business problem-solving. The course aids the student in developing business applications for existing software that address applied problems in the modern workplace. Application areas may include health care management, human resource management, operations management, small business management, marketing, and tourism management. Application topics will be drawn from issues and problems across all areas. Application software may include spreadsheets, databases, multimedia presentation software, graphics programs, and Internet access.

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  Organizational Behavior
(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.

3043  Business Communications
(3-0) 3 hours credit. Prerequisite: COM 1043 and ENG 1023.
Introduction to the basic interpersonal communication process through written and oral channels, with practical applications for business organizations. Emphasis is on planning, researching, organizing, writing, editing, and revising reports and proposals and other business-related messages. Linking meaning and understanding between writer/speaker and reader/listener is stressed through audience analysis. Written assignments and oral presentations are required.
3123 Organizational Communication
(3-0) 3 hours credit. Prerequisites: MGT 3013 and 3023.
Introduction to organizational communication and its relevance to the survival of today’s businesses. Examine communication models, perspectives, and concepts; barriers to effective communication; group and interpersonal communication; and information flows through the formal and informal networks of organizations. The course will also stress the means of evaluating organizational communication effectiveness.

3253 Interpersonal Communication
(3-0) 3 hours credit. Prerequisite: MGT 3043.
Dynamics of interpersonal communication. The course stresses the social context of communication and gives emphasis to the effects of status, rank, culture, group affiliation, and attraction on the communicating parties. Both verbal and nonverbal interactions are explored in terms of consequences to the communication process.

3613 Personnel Administration
(3-0) 3 hours credit. Prerequisite: MGT 3013.
Analysis of the management of personnel systems, with special focus on policy and planning considerations. Designed to provide a comprehensive understanding of the functional areas of personnel and the integration of these functions into an effective and efficient personnel 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.

4073 International Management
(3-0) 3 hours credit. Prerequisite: 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. Prerequisite: 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.
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 Advanced Organization Theory
(3-0) 3 hours credit. Prerequisites: MGT 3013, 3023, and 3043.
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 Compensation Management
(3-0) 3 hours credit. Prerequisite: MGT 3613 or consent of instructor.
Development and administration of wage and salary programs for organizations. Emphasis on objectives, policies, organization, and control of compensation systems. (Formerly MGT 3623. Credit cannot be earned for both MGT 3623 and MGT 4613.)
4623  **Recruiting and Selection**  
(3-0)  3 hours credit. Prerequisite: MGT 3613.  
The theory and practice of staffing organizations. Topics include applicant attraction, recruitment sources, design and implementation of selection instruments, the Uniform Guidelines on Employee Selection Procedures, and the hiring process.

4633  **Labor Relations**  
(3-0)  3 hours credit. Prerequisites: MGT 3613.  
A contemporary analysis of the union-management relationship in both business and nonbusiness organizations. Topics include organizing activities, collective bargaining, alternative dispute resolution, and agreement administration.

4643  **Human Resources Law**  
(3-0)  3 hours credit. Prerequisite: BLW 3013.  
An analysis of historical and contemporary laws in the United States that affect the personnel function. Integration of labor and employment law with the social and economic forces shaping the current labor-management environment.

4663  **Training and Safety**  
(3-0)  3 hours credit. Prerequisite: MGT 3613.  
A study of the process of attaining effective work performance. The course exposes students to training techniques that may be used to improve work performance and to the legal requirements for providing a safe work environment.

4803  **Human Resources Management**  
(3-0)  3 hours credit. Prerequisites: MGT 3613, 4613, and 4633, or their equivalents.  
The theory and practice of human resource planning and strategy, including forecasting, compliance management, and selection, development, and benefit programs. Emphasis is on integrating functions into a comprehensive human resource program.

4813  **Current Topics in Human Resource Management**  
(3-0)  3 hours credit. Prerequisite: Consent of instructor.  
Analysis of current trends in human resources management. Critical analysis of personnel/human resources. Primary consideration given to developments in theory and activities of regulating agencies and the courts. Analysis of ethical, social, and public policy aspects of personnel management. May be repeated for credit when topics vary.

4873  **Entrepreneurship**  
(3-0)  3 hours credit.  
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  **Small Business Management**  
(3-0)  3 hours credit. Prerequisites: 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. Provides an opportunity to work with a small business as a student consultant.

4893  **Management Strategy and Policy**  
(3-0)  3 hours credit. Prerequisites: MGT 3043; College of Business declared major in semester of graduation; permission given through Undergraduate Business Advising Office 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
3 hours credit. Prerequisite: Permission from the instructor.
This practicum within the concentration will allow students to gain valuable experience in the field. Drawing upon the resources of the Small Business Development Centers, the practicum facilitates an integrative experience through interaction with entrepreneurs and small business owners. Students engage in research projects, examining relevant issues and problems that entrepreneurs confront. (Practicum is repeated for a total of 6 semester credit hours.)

4913 Independent Study
3 hours credit. Prerequisites: Permission in writing from the instructor, the Division Director, and the Dean of the College of Business. See Undergraduate Business Advising Office 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 Leadership
(3-0) 3 hours credit. Prerequisite: MGT 3013 or permission of instructor. This is an advanced course focusing on traditional and contemporary perspectives on leadership and the group processes toward which leadership is applied. The course examines leadership from diverse perspectives and also addresses issues such as influence tactics and decision making.

4933 Internship in Management
3 hours credit. Prerequisites: 2.5 grade point average, 9 semester credit hours of management courses, and permission in writing from the instructor, the Division Director, and the Dean of the College of Business. See Undergraduate Business Advising Office 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 Division Director 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.

4953 Special Studies in Management
(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 honors program students with sponsorship by a division faculty member.
Supervised research and preparation of an honors thesis. May be repeated once for credit with advisor’s approval.

Bachelor of Business Administration Degree in Tourism 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 requirements, and the degree requirements, which are listed below.

Core Curriculum requirements: Students seeking the Bachelor of Business Administration 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 5-10 of this catalog.
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.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric** (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
| **Domain I: Mathematics and Science** | **Mathematics** (3 semester credit hours)  
MAT 1033 Algebra with Calculus for Business  
**Science** (6 semester credit hours)  
Three hours from Level One and three hours from Level Two will satisfy this core requirement. |
| **Domain II: Society and Culture** | **United States History and Diversity** (6 semester credit hours)  
Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
**Political Studies** (6 semester credit hours)  
Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
**Social and Behavioral Sciences** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
**Economics** (3 semester credit hours)  
ECO 2013 Introductory Macroeconomics |
| **Domain III: Literature and the Arts** | **Literature** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
**The Arts** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement. |
| **Domain IV: Interdisciplinary Studies** | (3 semester credit hours)  
ANT 2053 Introduction to Cultural Anthropology |

**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.

<table>
<thead>
<tr>
<th>Course or Requirement</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2013</td>
<td>Principles of Accounting I</td>
</tr>
<tr>
<td>ACC 2033</td>
<td>Principles of Accounting II</td>
</tr>
<tr>
<td>BLW 3013</td>
<td>Business Law</td>
</tr>
<tr>
<td>COM 1043</td>
<td>Introduction to Communication</td>
</tr>
<tr>
<td>ECO 2013</td>
<td>Introductory Macroeconomics (Domain II)</td>
</tr>
<tr>
<td>ECO 2023</td>
<td>Introductory Microeconomics</td>
</tr>
<tr>
<td>FIN 3013</td>
<td>Principles of Business Finance</td>
</tr>
<tr>
<td>GBA 2013</td>
<td>Social and Ethical Issues in Business</td>
</tr>
</tbody>
</table>
IS 3003 Principles of Information Systems for Management 3
MAT 1033 Algebra with Calculus for Business (Domain I) 3
MGT 3013 Introduction to Organization Theory, Behavior, and Management 3
MGT 3043 Business Communications 3
MGT 4893 Management Strategy and Policy (taken in semester of graduation) 3
MKT 3013 Principles of Marketing 3
MS 1013 Quantitative Methods in Business 3
MS 3033 Management Science and Production Management 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 in the Tourism major core:**

- BLW 4153 Tourism Law
- MGT 3613 Personnel Administration
- MKT 3083 Marketing Research
- TM 3103 Tourism Marketing
- TM 3113 Survey of the Tourism/Hospitality Industry
- TM 3543 Destination Management
- TM 4883 Management Strategies in Tourism

**B. 9 semester credit hours in a single Tourism Track:**

**Tourism Operations Track**
- TM 3313 Accommodations Management
- TM 3333 Food and Beverage Management (formerly Restaurant Management)
- TM 3523 Attractions Management

**Tourism Marketing Track**
- MKT 3043 Advertising
- MKT 3063 Personal Selling
- MKT 3113 Retailing

**Tourism Human Resources Management Track**
- MGT 4623 Recruiting and Selection
- MGT 4643 Human Resources Law
- MGT 4663 Training and Safety

**International Tourism Track**
- TM 4113 International Tourism
- MGT 4073 International Management
- MKT 4073 International Marketing

**C. 6 semester hours of non-business elective course work chosen from the following:**

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

*ANT 2053 will satisfy Domain IV of the Core Curriculum and a non-business elective must be taken to complete the total plan hours.
COURSE DESCRIPTIONS
TOURISM MANAGEMENT
(TM)

3103 Tourism Marketing
(3-0) 3 hours credit. Prerequisite: MKT 3013.
The conceptualization, design, delivery, and evaluation of marketing plans for tourism enterprises, including marketing mix, tourism product, consumer behavior, communications and media uses, and procedures for advertising and public relations campaigns to develop leisure travel, incentive travel, and the meetings and convention market. (Formerly MKT 3733. Credit cannot be earned for both TM 3103 and either MKT 3733.)

3113 Survey of the Tourism/Hospitality Industry
(3-0) 3 hours credit.
Historical development and organizational structure of the tourism/ hospitality industry. (Formerly MGT 3703 and TM 2103. Credit cannot be earned for both TM 3113 and TM 2103 or MGT 3703.)

3313 Accommodations Management
(3-0) 3 hours credit.
A managerial overview of the accommodations industry, history, development, and types of accommodation facilities, with an emphasis on the concepts of organizational behavior and quality management as they relate to the operational, financial, and marketing functions. (Formerly MGT 3713. Credit cannot be earned for both TM 3313 and MGT 3713.)

3333 Food and Beverage Management
(3-0) 3 hours credit.
A study of the procedures to research, develop, and operate a food and beverage operation including stand alone restaurants, accommodations, attractions, and other tourism venues. The focus will be on market research, site selection, financial feasibility, operations, and role in the marketing mix.

3453 Transportation Management
(3-0) 3 hours credit.
A systematic study of the transportation industry, including the evolution of the technological, environmental, social, and political aspects of global, multimodal, tourist transportation systems. Emphasis is on air transportation; however, the functions of management components and characteristics of competing national and international common carriers are examined. The effects of deregulation, energy shortages, governmental restraints, and national and international issues relating to passenger transportation are discussed.

3523 Attractions Management
(3-0) 3 hours credit.
A managerial overview of the attractions industry, history, development, and types of commercial attractions, with an emphasis on the concepts of organizational behavior and quality management as they relate to the operational, financial, and marketing functions. (Formerly MGT 3723. Credit cannot be earned for both TM 3523 and MGT 3723.)

3543 Destination Management
(3-0) 3 hours credit.
The management and planning concepts necessary to successfully manage conventions and visitors bureaus, regional tourism associations, and state tourism offices. (Formerly MGT 3743. Credit cannot be earned for both TM 3543 and MGT 3743.)

4113 International Tourism
(3-0) 3 hours credit. Prerequisites: MGT 3013 and ECO 2023.
The social, economic, and cultural effects of tourism on societies and the management of tourism investments. (Formerly MGT 4713. Credit cannot be earned for both TM 4113 and MGT 4713.)
4543  Marketing Tourism Destinations  
(3-0) 3 hours credit. Prerequisite: MKT 3013.  
Emphasizes a strategic approach to marketing tourism destinations: communities, regions, attractions, and resorts.  
Focus is on the optimal planning, development, and marketing of destination image and position 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. Credit cannot be earned for both TM 4543 and MKT 3743.)

4813  Topics in Hospitality and Tourism  
(3-0) 3 hours credit.  
Analysis of trends, issues, or events affecting the management of tourism or hospitality enterprises. May be repeated for credit when topics vary.

4823  Public Policy Analysis and the Tourism Industry  
(3-0) 3 hours credit.  
Theories that attempt to explain public policy formulation at the local, state, and federal level affecting the tourism industry, and guidelines for assuring that a tourism enterprise is in compliance with administrative rules and regulations. (Formerly MGT 4723. Credit cannot be earned for both TM 4823 and MGT 4723.)

4883  Management Strategies in Tourism  
(3-0) 3 hours credit.  
Emphasis on strategic considerations as a guide to complex managerial problems in a tourism enterprise with an emphasis on accommodations, attractions, destination management organizations, and restaurants. (Formerly MGT 4783. Credit cannot be earned for both TM 4883 and MGT 4783.)

4913  Independent Study  
3 hours credit. Prerequisites: Permission in writing from the instructor, the Division Director, and the Dean of the College of Business. See Undergraduate Business Advising Office 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 Tourism  
3 hours credit. Prerequisites: 2.5 grade point average and permission in writing from the instructor, the Division Director, and the Dean of the College of Business. See Undergraduate Business Advising Office for additional requirements and required forms.  
Supervised full- or part-time work experience in tourism management. May be repeated for credit, but not more than 6 semester credit hours will apply to a bachelor’s degree.

Bachelor of Business Administration Degree in Management Science

Management science is a general discipline that supports and supplements human decision-making abilities. It uses mathematics, statistics and computers for the purpose of analyzing, understanding, visualizing, and interpreting data. It seeks to provide a rational basis for decision analysis across a broad spectrum of decision problems. The minimum number of semester credit hours required for the Bachelor of Business Administration degree in Management Science 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 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 5-10 of this
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.

<table>
<thead>
<tr>
<th>Domain I: Mathematics and Science</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics (3 semester credit hours)</td>
<td>MAT 1033 Algebra with Calculus for Business</td>
</tr>
<tr>
<td>Science (6 semester credit hours)</td>
<td>Three hours from Level One and three hours from Level Two will satisfy this core requirement.</td>
</tr>
</tbody>
</table>

| Domain II: Society and Culture | | |
|--------------------------------|-------------------------------------------------------------|
| United States History and Diversity (6 semester credit hours) | Any six hours listed under this section in the list of core courses will satisfy this core requirement. |
| Political Studies (6 semester credit hours) | Any six hours listed under this section in the list of core courses will satisfy this core requirement. |
| Social and Behavioral Sciences (3 semester credit hours) | Any three hours listed under this section in the list of core courses will satisfy this core requirement. |
| Economics (3 semester credit hours) | ECO 2013 Introductory Macroeconomics |

<table>
<thead>
<tr>
<th>Domain III: Literature and the Arts</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature (3 semester credit hours)</td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td>The Arts (3 semester credit hours)</td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain IV: Interdisciplinary Studies</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>(3 semester credit hours)</td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>
## Course or Requirement

<table>
<thead>
<tr>
<th>Course or Requirement</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2013 Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACC 2033 Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>BLW 3013 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>COM 1043 Introduction to Communication</td>
<td>3</td>
</tr>
<tr>
<td>ECO 2013 Introductory Macroeconomics (Domain II)</td>
<td>3</td>
</tr>
<tr>
<td>ECO 2023 Introductory Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>FIN 3013 Principles of Business Finance</td>
<td>3</td>
</tr>
<tr>
<td>GBA 2013 Social and Ethical Issues in Business</td>
<td>3</td>
</tr>
<tr>
<td>IS 3003 Principles of Information Systems for Management</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1033 Algebra with Calculus for Business (Domain I)</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3013 Introduction to Organization Theory, Behavior, and Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3043 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4893 Management Strategy and Policy (taken in semester of graduation)</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3013 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MS 1013 Quantitative Methods in Business</td>
<td>3</td>
</tr>
<tr>
<td>MS 3033 Management Science and Production Management</td>
<td>3</td>
</tr>
</tbody>
</table>

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. 12 semester credit hours of required management science courses:

- MS 3063 Decision Support Systems for Management
- MS 4323 Simulation Applications in Business
- MS 4343 Production/Operations Management
- MS 4573 Management Science Applications in Business

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

A minimum of 6 hours must be management science courses

- MS 3313 Statistical Applications in Business
- MS 3403 Logistics Management
- MS 4353 Service Operations Management
- MS 4363 Quality Management and Control
- MS 4373 Applied Computer Modeling in Logistics
- 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
- MGT 3613 Personnel Administration
- FIN 4873 Computer Modeling of Financial Applications
- MKT 3083 Marketing Research

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

C. 9 semester credit hours of support work:

- 3 semester credit hours of the required course:
MGT 2033 Management Applications for Personal Computing

6 semester credit hours of electives taken outside the College of Business
Minor in Management Science

All students pursuing the minor must complete 18 semester credit hours.

A. 6 semester credit hours of the following courses:

- MGT 2033 Management Applications for Personal Computing
- MS 3033 Management Science and Production Management

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

- MS 3063 Decision Support Systems for Management
- MS 3313 Statistical Applications in Business
- MS 3403 Logistics Management
- MS 4323 Simulation Applications in Business
- MS 4343 Production/Operations Management
- MS 4353 Service Operations Management
- MS 4363 Quality Management and Control
- MS 4373 Applied Computer Modeling in Logistics
- MS 4573 Management Science Applications in Business
- 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
- FIN 4873 Computer Modeling of Financial Applications
- MGT 3613 Personnel Administration
- MKT 3083 Marketing Research

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

C. 3 semester credit hours

- MGT 2033 Management Applications for Personal Computing

COURSE DESCRIPTIONS

MANAGEMENT SCIENCE

(MS)

1013 Quantitative Methods in Business
(3-0) 3 hours credit. Prerequisite: MAT 1033.
An integrative introduction to business and economic concepts through the use of statistical analysis. (Formerly GBA 1013. Credit cannot be earned for both MS 1013 and GBA 1013.)

3033 Management Science and Production Management
(3-0) 3 hours credit. Prerequisites: MAT 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 scheduling, 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 for Management
(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.

4323 Simulation Applications in Business
(3-0) 3 hours credit. Prerequisite: MS 3033.
A study of the techniques for modeling and analysis of business processes using computer simulation and animation. Selected example applications from 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.)

4343 Production/Operations Management
(3-0) 3 hours credit. Prerequisite: MS 3033.
A study of the production operations management function in business. Traditional topics in manufacturing and service organizations are investigated. Includes a survey of modern production technologies. Attention is given to management practices and philosophies used in other countries to contrast and learn more effective ways to solve problems in operations management. (Formerly MGT 4343. Credit cannot be earned for both MS 4343 and MGT 4343.)

4353 Service Operations Management
(3-0) 3 hours credit. Prerequisite: MS 3033.
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: MS 3033.
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: MS 3033.  
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 12 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.

4573  Management Science Applications in Business  
(3-0) 3 hours credit. Prerequisite: MS 3033.  
The application of decision analysis to problems from a wide variety of business disciplines. Emphasis is on providing students with capabilities for applying management science techniques to problems from their own areas of interest. (Formerly MGT 4573. Credit cannot be earned for both MS 4573 and MGT 4573.)

4583  Current Technology: Issues for Business  
(3-0) 3 hours credit. Prerequisite: MS 3033.  
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: Permission in writing from the instructor, the Division Director, and the Dean of the College of Business. See Undergraduate Business Advising Office 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: 2.5 grade point average and permission in writing from the instructor, the Division Director, and the Dean of the College of Business. See Undergraduate Business Advising Office 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. 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.

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 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhetoric (6 semester credit hours)</td>
<td>All students must take the following six hours to meet this core requirement: ENG 1013 Freshman Composition ENG 1023 Discourse across the Disciplines</td>
</tr>
<tr>
<td>Domain I: Mathematics and Science</td>
<td>Mathematics (3 semester credit hours) MAT 1033 Algebra with Calculus for Business Science (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.</td>
</tr>
<tr>
<td>Domain II: Society and Culture</td>
<td>United States History and Diversity (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. Political Studies (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. Social and Behavioral Sciences (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. Economics (3 semester credit hours) ECO 2013 Introductory Macroeconomics</td>
</tr>
<tr>
<td>Domain III: Literature and the Arts</td>
<td>Literature (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. The Arts (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td>Domain IV: Interdisciplinary Studies</td>
<td>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>

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.
<table>
<thead>
<tr>
<th>Course or Requirement</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2013 Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACC 2033 Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>BLW 3013 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>COM 1043 Introduction to Communication</td>
<td>3</td>
</tr>
<tr>
<td>ECO 2013 Introductory Macroeconomics (Domain II)</td>
<td>3</td>
</tr>
<tr>
<td>ECO 2023 Introductory Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>FIN 3013 Principles of Business Finance</td>
<td>3</td>
</tr>
<tr>
<td>GBA 2013 Social and Ethical Issues in Business</td>
<td>3</td>
</tr>
<tr>
<td>IS 3003 Principles of Information Systems for Management</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1033 Algebra with Calculus for Business (Domain I)</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3013 Introduction to Organization Theory, Behavior, and Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 3043 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>MGT 4893 Management Strategy and Policy (taken in semester of graduation)</td>
<td>3</td>
</tr>
<tr>
<td>MS 3033 Management Science and Production Management</td>
<td>3</td>
</tr>
<tr>
<td>MS 3083 Marketing Research</td>
<td>3</td>
</tr>
<tr>
<td>MS 4073 International Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MS 4093 Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MS 4893 Marketing Strategy</td>
<td>3</td>
</tr>
<tr>
<td>TM 3103 Tourism Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

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:

- TM 3103 Tourism Marketing

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

- MGT 2033 Management Applications for Personal Computing

6 semester credit hours selected from the following courses:

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

C. 6 semester credit hours outside the College of Business.
Minor in Marketing

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

**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. (Credit cannot be earned for both MKT 3163 and MKT 3063.)

**3083 Marketing Research**
(3-0) 3 hours credit. Prerequisite: MKT 3013.
Theory and methodology of conducting and interpreting qualitative and quantitative marketing studies. Includes problem definition, research design, sampling, data analysis, and presentation of research findings. (Formerly MKT 4083. Credit cannot be earned for both MKT 3083 and MKT 4083.)

**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.
3183  **Market Intelligence**  
(3-0) 3 hours credit. Prerequisite: MKT 3013.  
A project-oriented course emphasizing the process by which businesses monitor the external business environment, with particular focus on consumers, competitors, suppliers and trends of significance to the firm.

4013  **Marketing Management**  
(3-0) 3 hours credit. Prerequisite: MKT 3013.  
An examination of consumer and industrial market 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. Prerequisite: MKT 3013.  
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. Prerequisite: MKT 3013.  
An overview of concepts, processes, and strategies necessary to successfully market goods and services 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.  
A course focused on marketing topics such as product management, pricing strategies, promotion, distribution management, e-commerce, etc. 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. Prerequisite: MKT 3013.  
Focus on the customer as a primary consideration in strategic marketing decisions. Analysis of variation in personal and environmental variables in the customer’s world as the basis for market segmentation and subsequent formulation of the marketing mix.

4893  **Marketing Strategy**  
(3-0) 3 hours credit. Prerequisites: MKT 3013, senior standing, and 15 additional semester credit hours in marketing. Approval is obtained in the Undergraduate Business Advising Office.  
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: MKT 3013, 9 additional semester credit hours in marketing, senior standing, and permission in writing from the instructor, the Division Director, and the Dean of the College of Business. See Undergraduate Business Advising Office 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 Marketing
3 hours credit. Prerequisites: MKT 3013, 2.5 grade point average, 9 additional semester credit hours in marketing, and permission in writing from the instructor, the Division Director, and the Dean of the College of Business. See Undergraduate Business Advising Office 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 Division Director 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.

4953 Special Studies in Marketing
(3-0) 3 hours credit. Prerequisite: 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: Enrollment limited to honors program students with sponsorship by division faculty member.
Supervised research and preparation of an honors thesis. May be repeated once for credit with advisor’s approval.

Army Reserve Officer Training Corps Program
The College of Business now offers the Army Reserve Officer Training Corps Program. Students interested in this program should refer to pages 168-170 of this catalog for program information and course descriptions.
TABLE OF CONTENTS

CHAPTER THREE
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT

<table>
<thead>
<tr>
<th>Division of Education</th>
<th>79</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Certification Programs</td>
<td>80</td>
</tr>
<tr>
<td>B.A. in Interdisciplinary Studies</td>
<td>88</td>
</tr>
<tr>
<td>B.S. in Health</td>
<td>99</td>
</tr>
<tr>
<td>Minor in Health</td>
<td>103</td>
</tr>
<tr>
<td>B.S. in Kinesiology</td>
<td>103</td>
</tr>
<tr>
<td>Minor in Youth and Human Services</td>
<td>124</td>
</tr>
<tr>
<td>Division of Bicultural-Bilingual Studies</td>
<td>127</td>
</tr>
<tr>
<td>B.A. in Mexican American Studies</td>
<td>127</td>
</tr>
<tr>
<td>Minor in Bicultural Studies</td>
<td>131</td>
</tr>
<tr>
<td>Minor in English as a Second Language</td>
<td>134</td>
</tr>
</tbody>
</table>
CHAPTER 3

COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT

DIVISION OF EDUCATION

The Division of Education offers three degree programs: the Bachelor of Arts in Interdisciplinary Studies, the Bachelor of Science in Health, and the Bachelor of Science in Kinesiology. Students seeking degrees in these areas may follow similar but individualized programs to prepare for professional service in institutions and agencies concerned with the welfare of children and youth. The Division of Education also provides professional education courses for all students seeking elementary, secondary, or all-level teacher certification.

DIVISION HONORS

The Division of Education 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 divisional faculty member. Students interested in this program should contact their professors for additional information.

TEACHER CERTIFICATION

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 a student’s program. All students are advised to stay in close contact with the Office of Teacher Advising, Certification and Placement (OTACP) throughout their academic career so that they will be informed of changes as they occur.

Students seeking teacher certification are encouraged to obtain a student handbook with more detailed information on teacher certification, the state-mandated teacher certification examination (ExCET), and other critical information from the Office of Teacher Advising, Certification and Placement.

Due to SBEC restructuring of levels and standards of teacher certificates, it is anticipated that ALL teacher certification programs will be changing EFFECTIVE Fall 2001 or later. OTACP advisors will be available to assist students in making this transition as soon as advisors are provided with the necessary information on new programs. Students are encouraged to visit the SBEC website (http://www.sbec.state.tx.us) to stay informed of the changes as they occur.

General Information

The University of Texas at San Antonio (UTSA) offers programs for preparation as elementary, secondary, and all-level teachers. Students who are seeking a Bachelor’s degree along with certification should refer to the Undergraduate Programs section of this catalog. Students who have an earned Bachelor’s degree but are not certified to teach in any state should refer to the Post-baccalaureate Programs sections of this catalog and should see an OTACP advisor. Students seeking certification as a School Counselor, Reading Specialist, Principal, or Superintendent should consult the UTSA Graduate Catalog or see an OTACP advisor.
Information about special programs such as MAECIT, Master of Arts in Education with a Concentration in Curriculum and Instruction / Teaching, is available from the MAECIT Coordinator. For further information, please consult the MAECIT coordinator or the graduate advisor of record in the Division of Education. Information about the Master Reading Teacher certification program is available in the Office of Teacher Advising, Certification and Placement. Course descriptions can be found in the UTSA Graduate Catalog.

TEACHER CERTIFICATION PROGRAMS

Undergraduate students who want to teach but do not have degrees yet

There are several different programs of study that students can follow in order to complete their degree plans and receive their teaching certification. The following list briefly describes these different programs and some of the different options available to students who are seeking their bachelor’s degree and wish to teach.

- Students interested in teaching pre-kindergarten, kindergarten, and elementary school levels PK through 6 are advised to declare a major in Interdisciplinary Studies (IDS) with a concentration in Early Childhood. Students can refer to the “Bachelor of Arts degree in IDS with Teacher Certification” section in this catalog to see the courses required for this degree. Students interested in this program should see an OTACP advisor for both degree and certification advising.

- Students interested in teaching elementary and middle school levels 1 through 8 are advised to declare a major in IDS and choose a concentration from one of the following areas: Art, Bilingual Education, Biology, English, French, Generic Special Education, Geography, German, Health, History, Kinesiology, Life-Earth Science, Mathematics, Music, Physical Science, Reading, or Spanish. Students can refer to the “Bachelor of Arts in IDS with Teacher Certification” section in this catalog to see the courses required for this degree. Students interested in this program should see an OTACP advisor for both degree and certification advising.

- Students interested in teaching pre-kindergarten, kindergarten, elementary, and middle school levels PK through 8 are advised to declare a major in IDS and choose a concentration from one of the following areas: Art, Bilingual Education, Biology, English, French, Generic Special Education, Geography, German, Health, History, Kinesiology, Life-Earth Science, Mathematics, Music, Physical Science, Reading, or Spanish with an endorsement in early childhood. Students can refer to the “Bachelor of Arts in IDS with Teacher Certification” section in this catalog to see the courses required for this degree. Students interested in this program should see an OTACP advisor for both degree and certification advising.

- Students interested in teaching elementary, bilingual elementary, and middle school ESL levels 1 through 8 are advised to declare a major in IDS with a concentration in Bilingual Education. Students can refer to the “Bachelor of Arts in IDS with Teacher Certification” section in this catalog to see the courses required for this degree. Students interested in this program should see an OTACP advisor for both degree and certification advising.

- Students interested in teaching elementary levels 1 through 8 and special education levels PK through 12 are advised to declare a major in IDS with a concentration in Generic Special Education. Students can refer to the “Bachelor of Arts in IDS with Teacher Certification” section in this catalog to see the courses required for this degree. Students interested in this program should see an OTACP advisor for both degree and certification advising.

- Students interested in teaching middle and high school levels 6 through 12 have two different options to consider when deciding which degree plan to follow.
  - Option I allows students to major in the subject area in which they wish to teach. Under this option students would major and get certified in one of the following areas: Biology, Chemistry, Computer Information Systems, Earth Sciences, Economics, English, French, Geography, German, Government, Health, History, Life-Earth Science (6-8 grades only), Mathematics, Physical Science, Physics, Sociology, or Spanish.
  - Option II allows students to major in one of the subject areas in which they wish to teach; however, with this option students would major in one area but would be certified to teach in two or more of the following areas: Earth Sciences, Generic Special Education (students cannot declare a major in this area), German, Health, Kinesiology, Mathematics, or Sociology.
With either Option I or II, students should see an academic advisor in their major for degree advising and an OTACP advisor for certification advising. Also with either option, students can refer to the “Secondary Certification” section and the section in this catalog which lists the degree requirements for the major they choose to learn more about the courses required for these two options.

- Students interested in teaching **middle and high school levels 6 through 12** who wish to major in **Multidisciplinary Science** can do so by declaring Multidisciplinary Science as their major and then choosing one of the following four science areas as their primary field of study: Biology, Chemistry, Geology, and Physics. Students will be required to take courses in all four of the science areas. Students can refer to the “Secondary Certification” section and the “Bachelor of Science degree in Multidisciplinary Science” section in this catalog to see the courses required for the certificate and the degree. Students interested in this program should see an advisor in Multidisciplinary Science for degree advising and an OTACP advisor for certification advising.

- Students interested in teaching **Physical Education at levels PK through 12** are advised to major in Kinesiology. Students can refer to the “Bachelor of Science degree in Kinesiology with a specialization in Teacher Preparation” section in this catalog to see the courses required for this degree. Students interested in this program should see an OTACP advisor for both degree and certification advising.

- Students interested in teaching **Music at levels PK through 12** are advised to major in Music with a Music Studies Emphasis and can either follow Track I: Instrumental Music or Track II: Choral Music. Students can refer to the “Bachelor of Music degree with a Music Studies Emphasis” section in this catalog to see the courses required for this degree. Students interested in this program should see an academic advisor in Music for degree advising and an OTACP advisor for certification advising.

- Students interested in teaching **English as a Second Language (ESL) along with any of the above listed majors** in this section can do so by declaring a major as specified in the preceding paragraphs and taking the additional courses necessary to receive an ESL Endorsement. Bilingual Education specialists do not need to obtain this endorsement as they will be certified in ESL, grades 1 through 8. Students can refer to the “Endorsements” section in this catalog to see the courses required for this certification. Students interested in this program should see an academic advisor in their major for degree advising and an OTACP advisor for ESL certification advising.

**Post-Baccalaureate Programs**

Post-baccalaureate teacher certification programs are intended for Bachelor’s degree holders who are not certified to teach in any state. Post-baccalaureate program requirements are available in the Office of Teacher Advising, Certification and Placement (OTACP).

Consult the following list for information about the post-baccalaureate program that is appropriate for the teaching position desired.

- Students interested in teaching **pre-kinder, kindergarten, and elementary levels PK through 6** are advised to follow the teacher certification program for Post-Baccalaureate Elementary with a concentration in Early Childhood. These students should see an OTACP advisor for certification advising.

- Students interested in teaching **pre-kinder, kindergarten, elementary, and bilingual/ESL levels PK through 8** are advised to follow the teacher certification program for Post-Baccalaureate Elementary with a concentration in Early Childhood with an endorsement in Bilingual Education at the graduate level. These students should see an OTACP advisor for certification advising.

- Students interested in teaching **elementary and middle school levels 1 through 8** are advised to follow the teacher certification program for Post-Baccalaureate Elementary with a concentration in one of the following areas: Art, Bilingual Education, Biology, English, French, Generic Special Education, Geography, German, Health, History, Kinesiology, Life-Earth Science, Mathematics, Music, Physical Science, Reading, or Spanish. These students should see an OTACP advisor for certification advising.
• Students interested in teaching **pre-kinder, kindergarten, elementary, and middle school levels PK through 8** are advised to follow the teacher certification program for Post-Baccalaureate Elementary **with an Endorsement in Early Childhood**. The endorsement can be at either the undergraduate or the graduate level. Students would choose a concentration from one of the following areas: Art, Bilingual Education, Biology, English, French, Generic Special Education, Geography, German, Health, History, Kinesiology, Life-Earth Science, Mathematics, Music, Physical Science, Reading, or Spanish. These students should see an OTACP advisor for certification advising.

• Students interested in teaching **bilingual/ESL and elementary levels 1 through 8** are advised to follow the teacher certification program for Post-Baccalaureate Elementary with a concentration in Bilingual Education. These students should see an OTACP advisor for certification advising.

• Students interested in teaching **special education levels PK through 12 and elementary levels 1 through 8** are advised to follow the teacher certification program for Post-Baccalaureate Elementary with a concentration in Generic Special Education. These students should see an OTACP advisor for certification advising.

• Students interested in teaching **bilingual/ESL, elementary, and middle school levels 1 through 8** are advised to follow the teacher certification program for Post-Baccalaureate Elementary **with an Endorsement in Bilingual Education** at the graduate level. Students would choose a concentration from one of the following areas: Art, Biology, English, French, Generic Special Education, Geography, German, Health, History, Kinesiology, Life-Earth Science, Mathematics, Music, Physical Science, Reading, or Spanish. These students should see an OTACP advisor for certification advising.

• Students interested in teaching **middle and high school levels 6 through 12** are advised to follow the teacher certification program for Post-Baccalaureate Secondary and choose a concentration from one of the following areas: Biology, Chemistry, Computer Information Systems, Earth Science, Economics, English, French, Generic Special Education, Geography, German, Health, History, Kinesiology, Life-Earth Science (grade levels 6-8 only), Mathematics, Physical Science, Physics, Sociology, or Spanish. These students should see an OTACP advisor for certification advising.

• Students interested in teaching **science in middle and high school levels 6 through 12** are advised to follow the teacher certification program for Post-Baccalaureate Secondary and will take courses in all four of the following Science areas: Biology, Chemistry, Geology, and Physics; however, students will only have one of the science areas as their primary area of study. These students should see an OTACP advisor for certification advising.

• Students interested in teaching **Physical Education at levels PK through 12** are advised to follow the teacher certification program for the Bachelor of Science degree in Kinesiology with the specialization in Teacher Preparation. These students should see an OTACP advisor for certification advising.

• Students interested in teaching **Music at levels PK through 12** are advised to follow the teacher certification program for All-level Music with a Music Studies Emphasis in either Track I: Instrumental Music or Track II: Choral Music. These students should see an OTACP advisor for certification advising and consult a faculty member in Music for an audition.

• Students interested in adding **English as a Second Language (ESL) to one of the above listed certificates** can do so by choosing either an ESL endorsement at the undergraduate or graduate level and then choosing an area to specialize in from the areas listed in the preceding paragraphs. These students should see an OTACP advisor for ESL certification advising. Bilingual Education specialists do not need to obtain this endorsement because they will be certified in ESL for grades 1 through 8.

**Standards**

Certificate programs have been designed to meet the standards for teacher certification set by the State Board of Education. UTSA is approved to recommend individuals for these certificates only if the individual has completed all requirements listed for the certificate he/she is earning.
The State of Texas utilizes the “approved program” concept in its system of teacher certification. The State

1. establishes the regulations and standards by which teachers are certified (the requirements are independent of college or university degree requirements);
2. 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
3. issues the teacher certificate directly to the student, upon recommendation of an approved college or university.

Applying to the UTSA Teacher Certification Program

All students seeking teacher certification must make formal application for admission to a certificate program through the Office of Teacher Advising, Certification, and Placement by

1. completing an application
2. completing at least three courses at UTSA and attaining junior standing (60 semester credit hours of work completed)
3. being in good standing at UTSA
4. completing all core curriculum requirements with an average grade of C or better
5. having a minimum grade point average of 2.5 (on a 4.0 scale) on all work completed at UTSA and a cumulative grade point average of at least 2.5
6. submitting a Texas Department of Public Safety criminal background report
7. attaining minimum TASP scores of 230 (Reading and Math) and 220 (Writing)
8. earning a grade of “C” or better in COM 1043 or COM 2123, and IDS 2003. Those seeking elementary certification must also earn a “C” or better in IDS 2083, while those seeking secondary certification must also earn at least a “C” in CS 1033

Alternative Certification

Alternative certification is designed for those who hold a Bachelor’s degree (or higher) and are not certified to teach. For information on alternative certification programs in San Antonio, please contact the Region XX Education Service Center.

Applying for the Teacher Certificate

Upon successful completion of the bachelor’s degree, the certification program, required examinations, and student teaching, students must complete the State Board for Educator Certification College/University Recommendation and Application for Certification and submit it to the Office of Teacher Advising, Certification, and Placement in order to receive the teacher certificate. To be eligible for the teacher certificate, students must have a 2.50 cumulative grade point average, must be in good standing at UTSA, and must receive the recommendation of the Division of Education. Applications are available in the Office of Teacher Advising, Certification, and Placement. The Office of Teacher Advising, Certification, and Placement will process the application and forward it to the State Board for Educator Certification upon the recommendation of the director of the Office of Teacher Advising, Certification, and Placement and the Division of Education. The teacher certificate will be issued directly to the student by the State Board for Educator Certification.

Criminal History Check

Prior to enrolling for field-based coursework, students will be required to submit evidence of a clear criminal history check from the Texas Department of Public Safety. For further information, consult the Office of Teacher Advising, Certification and Placement (OTACP).

Teaching Certificates for Persons with a Criminal Background

State guidelines: 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 directly relates to the duties and responsibilities of the teaching profession.
Other States

Very few states grant direct or unconditional reciprocity for teaching certificates issued by another state. Individuals who are already certified should contact the Department of Education of the desired state to obtain an evaluation of their credentials. Generally, a one-year permit to teach in that state is issued while the individual completes any deficiencies identified by the state department of education. Upon removal of these deficiencies, the individual will be issued a certificate to teach in that state. Individuals who do not hold a valid teaching certificate from another state must contact a college or university and follow their approved program.

Academic Advising

The UTSA Office of Teacher Advising, Certification and Placement offers advising services for students seeking teacher certification. Advisors are available on an appointment or walk-in basis; call the OTACP for current advising hours. Refer to the section titled Teacher Certification Programs on page 86 to determine when it is appropriate to seek advising in the OTACP.

Policies

Advisor Codes

Advisor codes are necessary in order to register for restricted classes. Because restricted classes vary by type of certification, individuals are responsible for determining if the Professional Education course or courses needed are restricted courses. If restricted, an advisor code will be necessary and will need to be requested in advance of the date of registration. The OTACP accepts applications for advisor codes from approximately two weeks before registration begins until the registration process has been completed. Please contact the OTACP for the specific date on which the applications for advisor codes will be taken. After processing of the applications, the advisor code will be available to be picked up by the individual.

Appeals

The Director of the Office of Teacher Advising, Certification and Placement shall take first action on student waivers of teacher certification requirements. If a student does not meet certification requirements, the Director of the Office of Teacher Advising, Certification and Placement so notifies the student that he/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 Office of Teacher Advising, Certification and Placement. The Director of the Office reviews the student’s file and recommends action to the Division Director of Education, 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 Vice President for Academic Affairs. The Provost and Vice President for Academic Affairs notifies the student of the decision through the Dean of the College of Education and Human Development.

Course Substitutions

The UTSA certification programs have been carefully designed to meet State Board for Educator Certification (SBEC) standards and to prepare UTSA students to pass the Examination for Certification of Educators in Texas (ExCET). It is, therefore, in the best interest of students 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 Office of Teacher Advising, Certification and Placement before the individual registers for the course. Requested course substitutions must match the required course in content, intent and level.
Restricted Education Courses

Restricted Education courses have strict prerequisites as specified by Division of Education faculty. In order to register for a restricted course, a student must apply for an advisor code. Advisor codes for restricted Professional Development and Reading classes may be applied for in the Office of Teacher Advising, Certification, and Placement (OTACP). Restricted Professional Development and Reading courses are as follows:

- For those seeking Elementary certification, restricted courses are ECE 4303 and ECE 4403.
- For those seeking Secondary certification, restricted courses are C&I 4203, EDP 4203, and RDG 3773.
- For those seeking All-level certification in Physical Education, the restricted course is ECE 4403.
- For those seeking All-level certification in Music, restricted courses are ECE 4403 and C&I 4203.

Please see the “Advisor Code” section for more information about obtaining an advisor code for the classes listed above.

Waivers

Individuals who wish to request a waiver of course requirements should first contact the Office of Teacher Advising, Certification and Placement to determine if the requirement is a UTSA or a State Board for Educator Certification (SBEC) requirement. Individuals who wish to request a waiver of a UTSA requirement must file a written request with the Office of Teacher Advising, Certification and Placement. Waivers cannot be granted for the requirements mandated by the State Board for Educator Certification (SBEC).

Testing Requirements

TASP

The Texas Academic Skills Program (TASP) is a competency exam administered by National Evaluation Systems that measures basic skills in reading, writing, and mathematics. The TASP is required for admission to the UTSA teacher certification program. Passing scores on the three sections of the TASP are required before a student is eligible to enroll for most professional education and student teaching coursework. Registration bulletins are available in the Office of Teacher Advising, Certification, and Placement and the Testing Center. Information about TASP administrations is available in the Testing Center.

TASP Exemptions

Students who applied for admission to the UTSA teacher certification program between September 1, 1998 and August 31, 2000 were given the opportunity to apply for an exemption to the TASP. EFFECTIVE SEPTEMBER 1, 2000, STUDENTS SEEKING ADMISSION TO THE UTSA TEACHER CERTIFICATION PROGRAM WILL HAVE TO PASS ALL THREE (3) SECTIONS OF THE TASP. Please refer to the “Applying to the UTSA Teacher Certification Program” for complete information about admission requirements.

ExCET

The Examination for the Certification of Educators in Texas (ExCET) is a state-mandated examination 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.

ExCET 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.

Further information on required ExCET tests can be obtained in the Student Handbook, available in the Office of Teacher Advising, Certification and Placement (OTACP).
**Student Teaching**

Student teaching is an extremely important component of the certification program. The primary purpose of student teaching is to learn to apply what was 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 BE COMPLETED AT 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. The deadline for the application for students who plan to student teach in the Fall semester is March 1st. For students planning to student teach in the Spring semester, the deadline for the application is October 1st. Acceptance into the student teaching program is contingent upon completion of the following requirements:

1. admission to the UTSA Teacher Certification Program, including submission of passing scores on all three sections of the Texas Academic Skills Program (TASP)
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:
   - for interdisciplinary studies/elementary education students: EDU 3103, EDP 3103, ECE 4303, and ECE 4403; for secondary certification students: EDU 3103, EDP 3203, EDP 4203, and C&I 4203; for all-level physical education students: EDU 3103, EDP 3203, and ECE 4403; for all-level music students: EDU 3103, EDP 3103, ECE 4403, and C&I 4203
5. for students seeking an endorsement in early childhood or English as a second language: completion of at least 6 semester credit hours in the endorsement area
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. presentation of a clear criminal history check obtained from the Texas Department of Public Safety.

**NOTE:** The Professional Semester is a full-time commitment. A student teacher must follow the same schedule as his/her cooperating teacher in the public schools for twelve weeks of consecutive, full-day, full-time student teaching. Therefore, it is not possible to register for other courses which 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 take additional courses at night. If at all possible, it is recommended that the individual not attempt to work during the student teaching semester. There is, however, 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 OTACP. During this seminar, OTACP staff will provide information about the ExCET, applying to the State Board for Educator Certification (SBEC) for the teaching certificate, letters of completion, policies and procedures concerning placement files, and signing up to be included in the Student Teacher Directory. 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.

**Alternatives to Student Teaching**

**Internship**

The UTSA Office of Teacher Advising, Certification and Placement (OTACP) offers the internship as an option to teacher certification students who have extensive experience in accredited public and/or private schools as instructional aides or as substitute teachers in permanent, long-term positions. However, UTSA Division of Education faculty believe that the best preparation for prospective teachers is STUDENT TEACHING. The supportive environment typical of a student teaching experience is highly beneficial. It is not recommended that an individual take an internship during the student teaching semester.
placement cannot be duplicated with an internship where the teacher is ultimately responsible for the group of children to whom he/she has been assigned. THEREFORE, UTSA TEACHER CERTIFICATION STUDENTS ARE STRONGLY ENCOURAGED TO COMPLETE STUDENT TEACHING AS IT IS THE BETTER OPTION FOR THE MAJORITY OF STUDENTS.

ELIGIBILITY - A student wishing to pursue the internship option must have:
1. a Bachelor’s degree
2. a 2.50 cumulative GPA
3. passed all sections of the TASP
4. been admitted to the UTSA teacher certification program
5. completed all certification coursework with the exception of student teaching
6. documented experience in the schools (on file with and approved by the Director of the Office of Teacher Advising, Certification and Placement (OTACP))
7. a teaching position in a school district or an accredited private school which is served by UTSA supervisors. For questions about areas served, please contact the Director of Student Teaching, ExCET Coordinator.

Deficiency Plan / Emergency Permit

The deficiency plan is the document used to assess qualifications for a teaching position for which a teacher certificate is not held. It is used by school districts to enable them to hire a teacher on an emergency permit. The deficiency plan consists of a list of the requirements remaining in the certification program which will have to be completed in order to become eligible for recommendation for the teacher certificate. In order to qualify for a deficiency plan for a teaching position, a 2.5 cumulative GPA is required; however, a deficiency plan for a professional nonteaching position requires a 3.0 cumulative GPA.

Applications for deficiency plans are available in the Office of Teacher Advising, Certification and Placement (OTACP). The OTACP charges a fee of $35 to prepare deficiency plans for applicants who have never attended UTSA. Payment is required prior to preparation of the deficiency plan. Checks or money orders will be accepted and should be made payable to UTSA; however, cash and charge cards will NOT be accepted. UTSA students who are currently enrolled or who have attended UTSA for a minimum of one semester will not be charged for this service. In most cases, the deficiency plan will be prepared within seven to ten working days. The original plan will be mailed to the school district listed on the application, a copy of the plan will be mailed to the applicant, and a copy will be kept on file in the OTACP.

Please note: Deficiency plans at the secondary level may only be prepared for students who have completed all secondary professional education and reading coursework with the exception of student teaching.

Regulations concerning substitutions for student teaching are set by the State Board for Educator Certification (SBEC). These regulations specify that an individual who has taught in an accredited school for a minimum of two full years at the appropriate level may request to substitute the specified number of semester hours of approved coursework for student teaching. The request must be made in writing and must receive the approval of the employing school district and the Office of Teacher Advising, Certification and Placement. The following criteria must be met in approving course substitutions for student teaching:

1. PROVISIONAL ELEMENTARY CERTIFICATE – Six semester hours of upper-division elementary education courses and two years of teaching experience in an elementary self-contained classroom in an accredited school.
2. PROVISIONAL SECONDARY CERTIFICATE – Six to nine semester hours of upper-division secondary education courses and/or specialization classes and two years of teaching experience at the secondary level (6-12) in an accredited school in the subject for which certification is sought.
3. PROVISIONAL ALL-LEVEL CERTIFICATE – Six to nine semester hours of upper-division elementary and secondary education courses; one year of teaching experience in an accredited school at the elementary level and one year of teaching experience in an accredited school at the secondary level.
Placement

Placement File

The Office of Teacher Advising, Certification and Placement (OTACP) at UTSA offers every education student the opportunity to open a placement file as an aid in seeking employment in the education profession. Information about opening up a placement file may be obtained in the OTACP. Complete information about the placement file will be provided to all student teachers at the Student Teacher Seminar.

Educator Job Fair

The Office of Teacher Advising, Certification and Placement (OTACP) at UTSA sponsors an Educator Job Fair each semester for all students interested in obtaining employment as teachers or other school professionals. Please contact the OTACP for dates and times.

Employment Opportunity Notebook / Postings

Notices of job openings for teachers and other school professionals are maintained in the Employment Opportunity Notebook and on bulletin boards in the Office of Teacher Advising, Certification and Placement (OTACP).

Resumes

For assistance on preparing a resume to obtain a job as a teacher or other school professional, please make an appointment to see an advisor in the Office of Teacher Advising, Certification and Placement (OTACP).

Career Advice / Assistance

Academic advisors in the Office of Teacher Advising, Certification and Placement (OTACP) are available to provide information on teaching careers to interested students. Please make an appointment to see an OTACP advisor for teaching career advice and assistance.

UNDERGRADUATE PROGRAMS

ELEMENTARY CERTIFICATION

Students who would like to teach in an elementary or middle school setting (grades 1 to 8) must obtain a Bachelor of Arts degree in Interdisciplinary Studies (IDS) and must choose an area of specialization from the areas listed as part of the interdisciplinary studies degree plan. The major and the area of specialization should be declared in the Office of Admissions and Registrar.

Bachelor of Arts Degree in Interdisciplinary Studies

The goal of the Bachelor of Arts in Interdisciplinary Studies (IDS) degree with teacher certification is to prepare prospective early childhood, elementary, and middle school teachers. The 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. The minimum number of semester credit hours required for the B. A. in IDS with teacher certification, including the Core Curriculum requirements, is 130, at least 39 of which must be at the upper-division level.

The Bachelor of Arts in Interdisciplinary Studies (IDS) degree-only option may be used as preparation for careers in government service or work with youth in a non-teaching 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. See “Degree Programs” for a listing of the requirements for this degree.
**Bachelor of Arts in IDS with teacher certification**

**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; 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric** (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
| **Domain I: Mathematics and Science** | **Mathematics** (3 semester credit hours)  
MAT 1023 College Algebra or higher  
Note: Students specializing in mathematics or physical science must substitute MAT 1214.  
**Science** (6 semester credit hours)  
BIO 1203, 1212 Biology I and Laboratory (The science laboratory is a teacher certification requirement.)  
Note: Students specializing in biology should take GEO 1103, 1111 Introduction to Earth Systems and Laboratory. |
| **Domain II: Society and Culture** | **United States History and Diversity** (6 semester credit hours)  
Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
**Political Studies** (6 semester credit hours)  
Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
**Social and Behavioral Sciences** (3 semester credit hours)  
IDS 2113 Society and Social Issues  
**Economics** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement. |
| **Domain III: Literature and the Arts** | **Literature** (3 semester credit hours): Any three hours listed below will satisfy this core requirement.  
IDS 2303 World Literature I, the Narrative Mode  
IDS 2313 World Literature II, Dramatic and Lyric Modes  
**The Arts** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement. |
| **Domain IV: Interdisciplinary Studies** | (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 |
Degree Requirements (58 semester credit hours):

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 2123</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>IDS 2003</td>
<td>Modes of Inquiry across the Fields of Study</td>
<td></td>
</tr>
<tr>
<td>IDS 2083</td>
<td>Technology for Liberal Arts and Social Sciences</td>
<td></td>
</tr>
<tr>
<td>IDS 2103</td>
<td>The Individual, Family, and Community</td>
<td></td>
</tr>
<tr>
<td>IDS 2113</td>
<td>Society and Social Issues</td>
<td></td>
</tr>
<tr>
<td>IDS 2123</td>
<td>Wellness and Fitness Management</td>
<td></td>
</tr>
<tr>
<td>IDS 2203</td>
<td>World Civilization to the Fifteenth Century</td>
<td></td>
</tr>
<tr>
<td>IDS 2213</td>
<td>World Civilization since the Fifteenth Century</td>
<td></td>
</tr>
<tr>
<td>IDS 2303 or IDS 2313</td>
<td></td>
<td>(whichever not taken to fulfill core requirements)</td>
</tr>
<tr>
<td>IDS 2303</td>
<td>Science and Humanity</td>
<td></td>
</tr>
<tr>
<td>IDS 3003</td>
<td>Language and Culture in a Pluralistic Society</td>
<td>(Not required of IDS students specializing in bilingual education.)</td>
</tr>
<tr>
<td>IDS 3103</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IDS 3303</td>
<td>Studies in Exceptionality</td>
<td>(Not required of IDS students specializing in early childhood or generic special education.)</td>
</tr>
<tr>
<td>IDS 3653</td>
<td>Music and Related Arts</td>
<td></td>
</tr>
<tr>
<td>MAT 1153</td>
<td>Essential Elements in Mathematics I</td>
<td></td>
</tr>
<tr>
<td>MAT 1163</td>
<td>Essential Elements in Mathematics II</td>
<td></td>
</tr>
<tr>
<td>RDG 3603</td>
<td>Introduction to Developmental Reading</td>
<td></td>
</tr>
<tr>
<td>RDG 3613</td>
<td>Early Literacy Learning</td>
<td></td>
</tr>
<tr>
<td>RDG 3623</td>
<td>Introduction to Content Area Reading-Elementary</td>
<td></td>
</tr>
<tr>
<td>SPN 2003</td>
<td>Spanish for Elementary Education</td>
<td></td>
</tr>
</tbody>
</table>

Science Laboratory (which corresponds to one of Core Sciences)

Area of Specialization (18 – 27 semester credit hours) one of the following areas of specialization must be selected by the student. Assistance in selection is available from the Office of Teacher Advising, Certification, and Placement. 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 a certification advisor before enrollment.

**Art.** (30 semester credit hours, including prerequisites): ART 1003, 1013, 1213, 1223, 2113, 2413, 2713, 3113, 4433, and 4753

**Bilingual education.** 9 semester credit hours of coursework in Spanish at the 2103 level and above are required, with at least three semester credit hours completed at the 3000 level or above as determined by results of the Prochievement exam. SPN courses should be chosen from: SPN 2103, SPN 2513 (special section for Bilingual specialists), SPN 3033, SPN 3043, SPN 3063, SPN 3493. Note: The special section of SPN 2513 for Elementary Education students will not count as part of this nine-hour requirement.

24 semester credit hours: BBL 2033, 3023, or 3033; BBL 3013 or 3133; BBL 4023, 4033, 4063, and 4073; ESL 3003 or 3053; and ESL 3033. The student must pass the practice TOPT at UTSA in order to be eligible to take the actual TOPT.

**Biology.** 19 semester credit hours: AHS 1053; BIO 1033, 1203, 1212, 3283, and 3292; and 3 hours of upper-division electives in biology

**Early childhood.** 24 semester credit hours: ECE 3103, 3113, 3123, 3133, 3203, 4103, 4113, and 4123

**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. 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. 24 semester credit hours:

- **Fall**: EDP 3603, 3643, and 3653
- **Spring**: EDP 3623, 3633, and 3663
- **Summer**: EDP 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 or 3053; GER 3413 or 3423; and 6 semester credit hours of upper-division electives in German (GER 4933 may not be used to meet this requirement)

Health. 18 semester credit hours: HTH 2513, 2523, 3533, 4513, 4523, and 4533

History. 18 semester credit hours: HIS 2053; HIS 2533, 2553, or 2573; AMS 3043, HIS 3113, HIS 3163, HIS 3443, HIS 3463, or HIS 3473; 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

Kinesiology. 18 semester credit hours: KIN 2303, 3413, 3443, 4343, 4103, and 3 hours from the following: KIN 2001, 2101, 2201, 2301, 2411, 2421.

Life-earth science. 25 to 27 semester credit hours: BIO 1033, 1203, 1212, 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 2243, 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)

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, 2242, and 2251; PHY 1904, 1911, 1924, and 1931

Reading. RDG 3603 and 3623 are prerequisites for the reading specialization courses. 18 semester credit hours: RDG 3723, 3733, 4103, and 4113; 6 semester credit hours from the following: RDG 3743, 3753, 3763, 3783, 4123, and 4133

Spanish. The Prochievement exam 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, 3653, or 3663; 6 semester credit hours from SPN 3033, 3043, or 3063; and SPN 3113. The student must pass the qualifying TOPT at UTSA in order to be eligible to take the actual TOPT.

Professional Education (12 semester credit hours):

The three sections of the TASP must be passed before enrollment in Professional Education and Student Teaching coursework.

- EDU 3103 Education in American Society
- EDP 3103 Learning and Development in the Elementary School Child
- ECE 4303 Approaches to Teaching, Pre-K-Grade 2
  (Restricted class/advisor code issued only if all prerequisites have been completed)
- ECE 4403 Approaches to Teaching, Grades 3-8
  (Restricted class/advisor code issued only if all prerequisites have been completed)
Student Teaching Component (6 semester credit hours):

EDU 4106 Student Teaching: Elementary
or
EDU 4206 Student Teaching-Dual Placement: Elementary with Early Childhood, Elementary with Generic Special Education, or Bilingual Education with Early Childhood Endorsement

Please note: Students completing the IDS degree with teacher certification may opt to graduate with another degree when they have completed 120 hours, 39 of which are at the upper-division level, as long as they have fulfilled all other UTSA requirements for that degree. Please check residency hours very carefully. If transferring from a community college, the maximum number of hours used for the B. A. in IDS is 66 semester credit hours. Therefore, community college transfer students wishing to graduate with the IDS degree with teacher certification prior to having completed all certification coursework must have completed 54 semester credit hours in residence at UTSA.

SECONDARY CERTIFICATION

Students seeking certification to teach at the secondary level (grades 6 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 division in which their degree is contained. They should also consult with an advisor in the Office of Teacher Advising, Certification, and Placement for information regarding secondary certification requirements and admission information 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.

Certification Requirements (9 semester credit hours):

Computer Science (3 semester credit hours):

CS 1033 Microcomputer Applications

Literature (3 semester credit hours) at the sophomore level or above

Speech (3 semester credit hours):

COM 1043 Introduction to Communication
or
COM 2123 Oral Interpretation

Professional Education and Reading Coursework (15 semester credit hours):

The TASP must be passed before enrolling in Professional Education and Student Teaching coursework.

EDU 3103 Education in American Society
EDP 3203 Learning and Development in the Secondary School Adolescent
EDP 4203 Assessment and Evaluation for Secondary Teachers
RDG 3773 Introduction to Content Area Reading-Secondary
C&I 4203 Models of Teaching in the Content Areas of the Secondary School

EDP 4203, RDG 3773 and C&I 4203 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 during Fall and Spring semesters.
**Student Teaching Component** (6 semester credit hours)

EDU 4116  Student Teaching: Secondary
or
EDU 4126  Student Teaching: Secondary-ESL

**Secondary Teaching Fields**

Option 1. One of the following teaching fields should be selected by students who desire to teach in grades 6-12 in the selected teaching field only. (If certification in additional teaching fields is desired, two or more Option 2 teaching fields must be chosen.) All of the specific courses listed are required to meet Texas standards for teacher certification. Most students will obtain a bachelor’s degree in the area of their teaching field. 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.

**Biology.** 38 semester credit hours: BIO 1203, 1212, 2123, 2132, 2313, 2322, 3283, 3292, 3413, 3422, 3513, and 3522: one of the following lecture-laboratory sequences: BIO 3713 and 3722, 3813 and 3822, or 4433 and 4442; 3 semester credit hours of upper-division electives in biology

**Chemistry.** 36 semester credit hours: CHE 1103, 1122, 1303, 1312, 2203, 2242, 3103, 3204, 3212, and 3264; 8 semester credit hours of upper-division electives in chemistry

**Computer information systems.** 37 semester credit hours: CS 1713, 1711, 1723, 1721, 2514, 2734, 3323, 3723, 3733, 3743, and 4753; 6 semester credit hours of upper-division electives in computer science

**Earth science.** 45 semester credit hours: AST 1013 and 1031; GEO 1103, 1111, 1123, 1131, 2003, 2011, 3043, 3052, 3063, 3071, 3083, 3103, 3111, 3123, 3131, 3163, and 4946; and GRG 3713

**Economics.** 36 semester credit hours: ECO 2013, 2023, 3013, 3053, and 3183; FIN 2003; and 18 semester credit hours of electives in ECO, 15 of which must be at the upper-division level

**English.** 36 semester credit hours: ENG 2223, 2233, 2263, 3303, 3333, and 4973; ENG 3223 or 3233; ENG 3323 or 3343; and 12 semester credit hours of electives in English, 9 of which must be at the upper-division level

**French.** 38 semester credit hours: FRN 1014, 1024, 2013, 2023, 3023, 3413, and 3423; and 15 semester credit hours of upper-division electives in French. French TOPT required.

**Geography.** 39 semester credit hours: GRG 1023, 2613, 2623, 3113, and 3153; HIS 2053; and 21 semester credit hours of electives in geography, 15 of which must be at the upper-division level

**German.** 38 semester credit hours: GER 1014 and 1024 (or GER 1008); GER 2013 and 2023 (or GER 2006); GER 3023, 3413, and 3423; and 15 semester credit hours of upper-division electives in German, 6 of which must be at the 4000 level (GER 4933 may not be applied to this requirement)

**Government.** 36 semester credit hours: POL 2023, 2603, 2633, 2703, and 3113; POL 3283, 3323, or 3373; POL 3233, 3243, or 3363; POL 4153, 4953, or 4973; SSC 3103, 3203, 3303, 3533, 4223, 4353, or 4373; and 9 semester credit hours of electives in political science, 6 of which must be at the upper-division level

**Health.** 39 semester credit hours: HTH 2513, 2523, 3503, 3513, 3523, 3533, 3543, 3553, 4503, 4513, 4523, and 4533; and KIN 3443

**History.** 39 semester credit hours: GRG 3153, HIS 2053, HIS 4973, IDS 2203, and IDS 2213; HIS 2533, 2553, or 2573; AMS 3013, AMS 3023, AMS 3033, AMS 3043, AMS 4823, HIS 3113, HIS 3163, HIS 3443, HIS 3463, or HIS 3473; 9 semester credit hours of upper-division electives in U.S. history; and 9 semester credit hours of upper-division electives in non-U.S. history
**Life-earth science.** 38 semester credit hours: AHS 1053; BIO 1033, 1203, 1212, 3283, and 3292; BIO 3003 or GEO 3163; GEO 1103, 1111, 1123, 1131, 2003, 2011, 3063, and 3071; and 3 semester credit hours of upper-division electives in biology and geology

**Mathematics.** 41 semester credit hours: MAT 1214, 1223, 2213, 2233, 3213, 3233, 4113, 4213, and 4263; STA 3513 and 3523; CS 1713 and 1711; and 3 semester credit hours of upper-division electives in mathematics

**Physical science.** 37 semester credit hours: CHE 1103, 1122, 1303, 1312, 2203, and 2242; PHY 1904, 1911, 1924, and 1931; and 12 semester credit hours of upper-division electives in chemistry and/or physics

**Physics.** 37 semester credit hours: PHY 1904, 1911, 1924, 1931, 3103, 3203, 3313, and 3423; and 15 semester credit hours of upper-division electives in physics

**Sociology.** 36 semester credit hours: SOC 1013; SOC 3313; SOC 3323 or SOC 3333; SOC 3343 or 3353; SOC 4973 or 4993; and 21 semester credit hours of electives in sociology, 12 of which must be at the upper-division level

**Spanish.** The PreAchievement exam should be taken before registering for any Spanish coursework. 39 semester credit hours: 6 semester credit hours from SPN 2013, 2023, 2513, or 2523; SPN 2103, SPN 3033, SPN 3043, and SPN 3063; 6 semester credit hours from SPN 3413, 3423, 3463, or 3473; SPN 3613 and SPN 3623; SPN 3113 or 4113; and 6 semester credit hours of upper-division electives in Spanish. The student must pass the practice TOPT at UTSA in order to be eligible to take the real TOPT.

Option 2. A minimum of two of the following teaching fields should be selected by students who desire to teach in grades 6-12 in each of the selected teaching fields. (If certification in one teaching field is desired, a teaching field from Option 1 must be chosen.) All of the specific courses listed are required to meet standards for teacher certification. Most students will obtain a bachelor’s degree in one of their teaching field areas. 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.

**Earth science.** 35 semester credit hours: AST 1013 and 1031; GEO 1103, 1111, 1123, 1131, 2003, 2011, 3063, 3071, and 3163; GRG 3713; and 9 semester credit hours of upper-division electives in geology. (May be combined with biology only.)

**Generic special education.** Because there is not a bachelor’s degree in special education, students choosing this teaching field must also choose another field that will double as their academic major. Coursework for this teaching field has been sequenced, and courses must be taken concurrently during the indicated semesters. The sequence begins in the Fall Semester. 24 semester credit hours:

<table>
<thead>
<tr>
<th>Fall</th>
<th>EDP 3603, 3643, and 3653</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring</td>
<td>EDP 3623, 3633, and 3663</td>
</tr>
<tr>
<td>Summer</td>
<td>EDP 4603 and 4653</td>
</tr>
</tbody>
</table>

**German.** 24 semester credit hours: GER 2013 and 2023 (or GER 2006); GER 3413 or 3423; GER 3023 or 3053; and 12 hours of upper-division electives in German (GER 3333 may not be applied to this requirement)

**Health education.** 24 semester credit hours: HTH 2513, 2523, 3533, 3543, 3553, 4513, 4523, and 4533

**Kinesiology.** Students who are pursuing a bachelor’s degree in kinesiology must pursue all-level certification. Secondary kinesiology is intended only for students who are pursuing an academic major in another teaching field. 27 semester credit hours: KIN 2303, 3303, 3413, 3443, 4113, 4403, 4413, 4423, and 3 hours from the following: KIN 2001, 2101, 2201, 2301, 2421.

**Mathematics.** 28 semester credit hours: MAT 1214, 1223, 2213, 2233, 3213, 3233, 4113, and 4263; and STA 3513

UTSA 2000–2002 Undergraduate Catalog
Sociology. 24 semester credit hours: SOC 1013; SOC 3343 or 3353; SOC 3313; SOC 4973 or 4993; and 12 semester credit hours of electives in sociology, 3 of which must be at the upper-division level

Option 3. UTSA does not have option 3 teacher certification programs at this time.

Option 4. This option is available to students pursuing a degree in multidisciplinary science and certification for grades 6-12 in composite science (biology, chemistry, geology, and physics). Students should select one of the four science areas as their primary science and should select the corresponding certification program.

**Composite science-biology.** 62 to 64 semester credit hours

Biology component: BIO 1033, 1203, 1212, 2123, 2132, 2313, 3283, 3292, 3413, and 3422

Additional sciences: AST 1013 and 1031; CHE 1103, 1122, 1303, 1312; GEO 1103, 1111, 1123, 1131, and 2003; GRG 3713; PHY 1603 and 1611 (or PHY 1904 and 1911); PHY 1623 and 1631 (or PHY 1924 and 1931)

**Composite science-chemistry.** 62 to 64 semester credit hours

Chemistry component: CHE 1103, 1122, 1303, 1312, 2203, 2242, 3103, 3204, 3212, and 3264

Additional sciences: AST 1013 and 1031; BIO 1203, 1212, and 2123; GEO 1103, 1111, 1123, 1131, and 2003; GRG 3713; PHY 1603 and 1611 (or PHY 1904 and 1911); PHY 1623 and 1631 (or PHY 1924 and 1931)

**Composite science-geology.** 55 to 57 semester credit hours

Geology component: GEO 1103, 1111, 1123, 1131, 2003, 2011, 3063, 3071, and 3163; and 3 semester credit hours of upper-division electives in geology

Additional sciences: AST 1013 and 1031; BIO 1203, 1212, and 2123; CHE 1103; 1122, 1303, and 1312; GRG 3713; PHY 1603 and 1611 (or PHY 1904 and 1911); PHY 1623 and 1631 (or PHY 1924 and 1931)

**Composite science-physics.** 59 to 61 semester credit hours

Physics component: PHY 1603 and 1611 (or PHY 1904 and 1911); PHY 1623 and 1631 (or PHY 1924 and 1931); PHY 3103, 3203, 3313, and 3423; and 3 semester credit hours of upper-division electives in physics

Additional sciences: AST 1013 and 1031; BIO 1203, 1212, and 2123; CHE 1103, 1122, 1303, and 1312; GEO 1103, 1111, 1123, 1131, and 2003; and GRG 3713

**ALL-LEVEL CERTIFICATION**

All-level certification programs for teaching in grades Prekindergarten - 12 are available in physical education (kinesiology) and in instrumental and choral music.

Students interested in the physical education program should consult the section of this catalog that describes the Bachelor of Science degree in Kinesiology with a specialization in Teacher Preparation. Degree and certification advising is available in the Office of Teacher Advising, Certification and Placement (OTACP).

Students interested in the music program should refer to the Bachelor of Music with an Emphasis in Music Studies. Degree advising for music majors is available in the Division of Music; certification advising is available in the Office of Teacher Advising, Certification, and Placement.

**ENDORSEMENTS**

Endorsements are areas of concentration that may be added to certain existing teacher certificates. UTSA offers undergraduate-level endorsements in early childhood education and in English as a second language.
Early Childhood. May be added to the provisional elementary, vocational home economics, speech and hearing therapy, speech and language therapy, deaf/severely hard of hearing, and hearing impaired certificates. 12 semester credit hours: ECE 3123 and ECE 3133; 3 semester credit hours from the following: ECE 3113, 3203, 4103, 4113, or 4123; and EDU 4003 (or EDU 4206) or 3 additional hours from the following: ECE 3113, 3203, 4103, 4113, 4123. This endorsement requires evidence of student teaching or one year of teaching experience in an approved pre-kindergarten or kindergarten classroom.

English as a Second Language. May be added to the provisional elementary, secondary, all-level, vocational, speech and hearing therapy, speech and language therapy, deaf/severely hard of hearing, and hearing impaired certificates. 12 semester credit hours: ESL 3003 or BBL 3013; ESL 3043 or BBL 3133; ESL 3033; and ESL 3053. This endorsement requires evidence of student teaching or one year of teaching experience in an approved English as a second language or bilingual education classroom.

DEGREE PROGRAMS

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; 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric** (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
| **Domain I: Mathematics and Science** | **Mathematics** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
**Science** (6 semester credit hours)  
Three hours from Level One and three hours from Level Two will satisfy this core requirement. |
Degree Requirements (18 semester credit hours):

<table>
<thead>
<tr>
<th>Domain II: Society and Culture</th>
<th>United States History and Diversity (6 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any six hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>Political Studies (6 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any six hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>Social and Behavioral Sciences (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>Economics (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain III: Literature and the Arts</th>
<th>Literature (3 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>The Arts (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain IV: Interdisciplinary Studies</th>
<th>(3 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>

Area of Specialization (18 – 27 semester credit hours)

One of the following areas of specialization must be selected by the student. Assistance in selection is available from the Office of Teacher Advising, Certification, and Placement. 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 a certification advisor before enrollment.

- **Art.** (30 semester credit hours): ART 1003, 1013, 1213, 1223, 2113, 2412413, 2713, 3113, 4433, and 4753

- **Bilingual education.** 9 semester credit hours of coursework in Spanish at the 2103 level and above are required, with at least three semester credit hours completed at the 3000 level or above as determined by results of the Prochievement exam. SPN courses should be chosen from: SPN 2103, SPN 2513 (special section for Bilingual specialists), SPN 3033, SPN 3043, SPN 3063, SPN 3493.

- **18 semester credit hours of the following BBL/ESL classes are required for the degree:** BBL 2033, 3023, or 3033; BBL 3013 or 3133; BBL 4023, 4033, 4063, and 4073; ESL 3003 or 3053; and ESL 3033.

- **Biology.** 19 semester credit hours: AHS 1053; BIO 1033, 1203, 1212, 3283, and 3292; and 3 hours of upper-division electives in biology.
**Early childhood.** 18 semester credit hours of the following ECE courses are required for the degree: ECE 3103, 3113, 3123, 3133, 3203, 4103, 4113, and 4123

**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 3013, 3023, or 3033; and 9 semester credit hours of upper-division electives in French (FRN 4933 may not be used to meet this requirement).

**Generic special education.** 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. 18 semester credit hours of the following Special Education classes are required for the degree:
- **Fall**  EDP 3603, 3643, and 3653
- **Spring**  EDP 3623, 3633, and 3663
- **Summer**  EDP 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 (or GER 2006); GER 3023 or 3053; GER 3413 or 3423; and 6 semester credit hours of upper-division electives in German (GER 4933 may not be used to meet this requirement)

**Health.** 18 semester credit hours: HTH 2513, 2523, 3533, 4513, 4523, and 4533

**History.** 18 semester credit hours: HIS 2053; HIS 2533, 2553, or 2573; AMS 3043, HIS 3113, HIS 3163, HIS 3443, HIS 3463, or HIS 3473; 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

**Kinesiology.** 18 semester credit hours: KIN 2303, 3413, 3443, 4343, 4403, and 3 hours from the following: KIN 2001, 2101, 2201, 2301, 2421.

**Life-earth science.** 25 to 27 semester credit hours: BIO 1033, 1203, 1212, 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 2243, 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 1522, 2603, 2663, 2673, 3463 (strongly recommended), 3712 (4 hours maximum), and 3721 (2 hours maximum)

**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, 2242, and 2251; PHY 1904, 1911, 1924, and 1931

**Reading.** RDG 3603 and 3623 are prerequisites for the reading specialization courses. 18 semester credit hours: RDG 3723, 3733, 4103, and 4113; 6 semester credit hours from the following: RDG 3743, 3753, 3763, 3783, 4123, and 4133

**Spanish.** The Prochievement exam 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, 3653, or 3663; 6 semester credit hours from SPN 3033, 3043, or 3063; and SPN 3113.
Electives (33 to 42 semester credit hours)
Advisors in the Office of Teacher Advising, Certification, and Placement 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, prelaw, predental, and premedical studies.

Bachelor of Science Degree in Health

This program provides students with the opportunity to pursue a Bachelor of Science degree in Health with an emphasis in one of the following: community health, school health (teacher certification) or health and fitness in business and industry.

Academic advising for students seeking this degree is available in the Office of Teacher Advising, Certification, and Placement.

Core Curriculum requirements: Students seeking the Bachelor of Science degree in Health, regardless of the emphasis they choose, 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric** (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
| **Domain I: Mathematics and Science** | **Mathematics** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
**Science** (6 semester credit hours)  
BIO 1203 (& 1212 as support work)  
Any additional three hours listed under the Level 2 section in the list of core courses will satisfy this core requirement. |
| **Domain II: Society and Culture** | **United States History and Diversity** (6 semester credit hours)  
Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
**Political Studies** (6 semester credit hours)  
Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
**Social and Behavioral Sciences** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
**Economics** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement. |
### Community Health Emphasis

The minimum number of semester credit hours for this degree, including the Core Curriculum requirements, is 124, at least 39 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 Requirements

A. 36 semester credit hours of health (Common Body of Knowledge):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTH 2513</td>
<td>Personal Health Management</td>
</tr>
<tr>
<td>HTH 2523</td>
<td>First Aid and Safety</td>
</tr>
<tr>
<td>HTH 3503</td>
<td>Foundations of Health Theory</td>
</tr>
<tr>
<td>HTH 3513</td>
<td>Issues in Community Health</td>
</tr>
<tr>
<td>HTH 3523</td>
<td>Worksite Health Promotion</td>
</tr>
<tr>
<td>HTH 3533</td>
<td>Drugs and Health</td>
</tr>
<tr>
<td>HTH 3543</td>
<td>Growth and Development</td>
</tr>
<tr>
<td>HTH 3553</td>
<td>Emotional Wellness</td>
</tr>
<tr>
<td>HTH 4503</td>
<td>Survey of Human Disease</td>
</tr>
<tr>
<td>HTH 4513</td>
<td>Consumer Health</td>
</tr>
<tr>
<td>HTH 4523</td>
<td>Understanding Human Sexuality</td>
</tr>
<tr>
<td>HTH 4533</td>
<td>Nutrition and Health</td>
</tr>
</tbody>
</table>

B. 19 semester credit hours of required support work:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHS 2083</td>
<td>Human Biology: Anatomy</td>
</tr>
<tr>
<td>AHS 2091</td>
<td>Human Biology: Anatomy Laboratory (or BIO 2123 &amp; 2132)</td>
</tr>
<tr>
<td>AHS 2103</td>
<td>Human Biology: Physiology</td>
</tr>
<tr>
<td>AHS 2111</td>
<td>Human Biology: Physiology Laboratory (or BIO 3413 &amp; 3422)</td>
</tr>
<tr>
<td>BIO 1212</td>
<td>Laboratory Investigations in Biology</td>
</tr>
<tr>
<td>COM 2123</td>
<td>Oral Interpretation</td>
</tr>
<tr>
<td>KIN 3003</td>
<td>Computer Applications in Kinesiology and Health</td>
</tr>
<tr>
<td>MGT 3013</td>
<td>Introduction to Organization Theory, Behavior, and Management</td>
</tr>
</tbody>
</table>

C. 6 semester credit hours of Internship:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTH 4936</td>
<td>Internship in Health for Community Health</td>
</tr>
</tbody>
</table>
D. 21 semester credit hours of electives, 9 of which must be upper division, chosen from the following:

- KIN 3433 Exercise Physiology
- KIN 3443 Exercise Prescription
- KIN 4103 Motor Development
- KIN 4113 Evaluation
- MGT 3803 Strategic Management of Nonprofit Organizations
- MKT 3013 Principles of Marketing
- POL 3293 Political Movements
- POL 3553 Social Policy in Modern Welfare States
- POL 3603 Public Policy Formulation and Implementation
- PSY 2533 Social Psychology
- PSY 4253 Psychology and Health
- SOC 2013 Social Problems
- SOC 2053 Marriage and the Family
- SOC 3203 Gerontology
- SOC 3213 Medical Sociology
- SOC 3423 Mass Media in Society
- YHS 3003 Fundraising in Nonprofit Agencies

**School Health Emphasis**

The minimum number of semester credit hours for this degree, including the Core Curriculum requirements, is 124, at least 39 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 Requirements**

A. 36 semester credit hours of health (Common Body of Knowledge):

- 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 Survey of Human Disease
- HTH 4513 Consumer Health
- HTH 4523 Understanding Human Sexuality
- HTH 4533 Nutrition and Health

B. 16 semester credit hours of required support work:

- AHS 2083 Human Biology: Anatomy
- AHS 2091 Human Biology: Anatomy Laboratory
- AHS 2103 Human Biology: Physiology
- AHS 2111 Human Biology: Physiology Laboratory
- BIO 1212 Laboratory Investigations in Biology
- COM 2123 Oral Interpretation
- KIN 3003 Computer Applications in Kinesiology and Health
C. 9 semester credit hours of electives, chosen from the following:

- KIN 3433 Exercise Physiology
- KIN 3443 Exercise Prescription
- KIN 4103 Motor Development
- KIN 4113 Evaluation
- PSY 4253 Psychology and Health
- SOC 2053 Marriage and the Family
- SOC 3423 Mass Media in Society

D. 21 hours of Professional Education, Reading and Student Teaching coursework

1. Professional Education and Reading Coursework:

   The State Board for Educator Certification has required that the three sections of the TASP must be passed before enrolling in Professional Education and Student Teaching coursework.

   - EDU 3103 Education in American Society
   - EDP 3203 Learning and Development in the Secondary School Adolescent
   - EDP 4203 Assessment and Evaluation for Secondary Teachers
   - RDG 3773 Introduction to Content Area Reading-Secondary
   - C&I 4203 Models of Teaching in the Content Area of the Secondary School

   EDP 4203, RDG 3773 and C&I 4203 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.

2. Student Teaching Component (6 semester credit hours):

   - EDU 4116 Student Teaching: Secondary
     or
   - EDU 4126 Student Teaching: Secondary-ESL

**Health and Fitness in Business and Industry Emphasis**

The minimum number of semester credit hours for this degree, including the Core Curriculum requirements, is 125, at least 39 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 Requirements**

A. 21 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 3523 Worksite Health Promotion
- HTH 3553 Emotional Wellness
- HTH 4513 Consumer Health
- HTH 4533 Nutrition and Health
B. 44 semester credit hours of required Professional Preparation courses:

1. 38 semester credit hours of required courses:

   KIN 2001  Skill Analysis in Physical Activity: Individual Activities
   KIN 2303  Cultural and Scientific Foundations
   KIN 2401  Gymnastics and Fitness Training
   KIN 2423  Management and Organization in Athletics and Sports
   KIN 3003  Computer Applications in Kinesiology and Health
   KIN 3303  Athletic Injuries and Training Procedures
   KIN 3313  Anatomical Kinesiology
   KIN 3323  Biomechanics
   KIN 3433  Exercise Physiology
   KIN 3443  Exercise Prescription
   KIN 4023  Exercise Psychology
   KIN 4103  Motor Development
   KIN 4113  Evaluation
   KIN 4403  Motor Learning

2. 6 semester credit hours from the following:

   KIN 4223  Advanced Topics in Exercise and Sport Psychology
   KIN 4233  Advanced Topics in Exercise Physiology and Fitness Training
   KIN 4243  Advanced Athletic Training

C. 9 semester credit hours of required support work:

   AHS 2083  Human Biology: Anatomy
   AHS 2091  Human Biology: Anatomy Laboratory
   BIO 1212  Laboratory Investigations in Biology
   COM 2123  Oral Communications

D. 9 semester credit hours of Internship:

   KIN 4943  Practicum in Kinesiology
   KIN 4936  Internship in Kinesiology

**Minor in Health**

All students pursuing the Minor in Health must complete 18 semester credit hours.

   HTH 2513  Personal Health Management
   HTH 3513  Issues in Community Health
   HTH 3533  Drugs and Health
   HTH 4513  Consumer Health
   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 Office of Teacher Advising, Certification, and Placement.

**Bachelor of Science Degree in Kinesiology**

This program provides students with the opportunity to pursue a Bachelor of Science degree in Kinesiology with two specialization areas (Teacher Preparation and Degree only).

Academic advising for students seeking the Kinesiology degree is available in the Office of Teacher Advising, Certification, and Placement.
Teacher Preparation Specialization

The minimum number of semester credit hours for this degree, including the Core Curriculum requirements, is 124, of which at least 39 must be at the upper-division level.

All candidates for the degree must complete the following:

**Core Curriculum requirements:** Students seeking the Bachelor of Science degree in Kinesiology with the specialization in Teacher Preparation 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rhetoric</strong> (6 semester credit hours)</td>
<td>All students must take the following six hours to meet this core requirement: ENG 1013 Freshman Composition ENG 1023 Discourse across the Disciplines</td>
</tr>
<tr>
<td><strong>Domain I: Mathematics and Science</strong></td>
<td><strong>Mathematics</strong> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <strong>Science</strong> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.</td>
</tr>
<tr>
<td><strong>Domain II: Society and Culture</strong></td>
<td><strong>United States History and Diversity</strong> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <strong>Political Studies</strong> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <strong>Social and Behavioral Sciences</strong> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <strong>Economics</strong> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td><strong>Domain III: Literature and the Arts</strong></td>
<td><strong>Literature</strong> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <strong>The Arts</strong> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>
**Domain IV: Interdisciplinary Studies**  
(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. 41 semester credit hours of required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTH 2523</td>
<td>First Aid and Safety</td>
</tr>
<tr>
<td>KIN 2001</td>
<td>Skill Analysis in Physical Activity: Individual Activities</td>
</tr>
<tr>
<td>KIN 2101</td>
<td>Skill Analysis in Physical Activity: Team Sports</td>
</tr>
<tr>
<td>KIN 2201</td>
<td>Skill Analysis in Physical Activity: Dual Sports</td>
</tr>
<tr>
<td>KIN 2301</td>
<td>Skill Analysis in Physical Activity: Track and Field</td>
</tr>
<tr>
<td>KIN 2303</td>
<td>Cultural and Scientific Foundations</td>
</tr>
<tr>
<td>KIN 2401</td>
<td>Gymnastics and Fitness Training</td>
</tr>
<tr>
<td>KIN 2423</td>
<td>Management and Organization in Athletics and Sports</td>
</tr>
<tr>
<td>KIN 3003</td>
<td>Computer Applications in Kinesiology and Health</td>
</tr>
<tr>
<td>KIN 3303</td>
<td>Athletic Injuries and Training Procedures</td>
</tr>
<tr>
<td>KIN 3313</td>
<td>Anatomical Kinesiology</td>
</tr>
<tr>
<td>KIN 3323</td>
<td>Biomechanics</td>
</tr>
<tr>
<td>KIN 3433</td>
<td>Exercise Physiology</td>
</tr>
<tr>
<td>KIN 3443</td>
<td>Exercise Prescription</td>
</tr>
<tr>
<td>KIN 4103</td>
<td>Motor Development</td>
</tr>
<tr>
<td>KIN 4113</td>
<td>Evaluation</td>
</tr>
<tr>
<td>KIN 4403</td>
<td>Motor Learning</td>
</tr>
</tbody>
</table>

B. 23 semester credit hours of professional preparation courses:

1. 17 semester credit hours of required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTH 2513</td>
<td>Personal Health Management</td>
</tr>
<tr>
<td>KIN 2411</td>
<td>Rhythmical Activities and Dance</td>
</tr>
<tr>
<td>KIN 2421</td>
<td>Outdoor Activities and Lifetime Sports</td>
</tr>
<tr>
<td>KIN 3413</td>
<td>Tactics</td>
</tr>
<tr>
<td>KIN 4123</td>
<td>Psychosocial Aspects of Exercise and Sport</td>
</tr>
<tr>
<td>KIN 4423</td>
<td>Developmental/Adaptive Physical Activity</td>
</tr>
<tr>
<td>KIN 4343</td>
<td>Movement Awareness</td>
</tr>
</tbody>
</table>

2. 6 semester credit hours from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTH 4533</td>
<td>Nutrition and Health</td>
</tr>
<tr>
<td>KIN 4223</td>
<td>Advanced Topics in Exercise and Sport Psychology</td>
</tr>
<tr>
<td>KIN 4413</td>
<td>Coaching Athletics</td>
</tr>
</tbody>
</table>

C. 6 semester credit hours of support work for certification:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 2123</td>
<td>Oral Interpretation</td>
</tr>
<tr>
<td>English literature elective at the 2000 level or above</td>
<td></td>
</tr>
</tbody>
</table>
D. 12 semester credit hours of Professional Education and Reading coursework:

The TASP must be passed before enrolling in Professional Education and Student Teaching coursework.

- EDU 3103 Education in American Society
- EDP 3203 Learning and Development in the Secondary School Adolescent
- RDG 3623 Introduction to Content Area Reading-Elementary
- ECE 4403 Approaches to Teaching, Grades 3-8

(Restricted class/advisor code issued only if all prerequisites have been completed)

Student Teaching Component

The following student teaching requirements are 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 4203 Models of Teaching in the Content Areas of the Secondary School with concurrent enrollment in
- EDU 4136 Student Teaching: All Level

Degree Only Specialization

The minimum number of semester credit hours for this degree, including the Core Curriculum requirements, is 122, of which at least 39 must be at the upper-division level.

All candidates for the degree must complete the following:

**Core Curriculum requirements**: Students seeking the Bachelor of Science degree in Kinesiology with the Degree only specialization 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric** (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
| **Domain I: Mathematics and Science** | **Mathematics** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
**Science** (6 semester credit hours)  
Three hours from Level One and three hours from Level Two will satisfy this core requirement. |
Degree Requirements

A. 52 semester credit hours of foundation courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTH 2523</td>
<td>First Aid and Safety</td>
</tr>
<tr>
<td>KIN 2001</td>
<td>Skill Analysis in Physical Activity: Individual Activities</td>
</tr>
<tr>
<td>KIN 2101</td>
<td>Skill Analysis in Physical Activity: Team Sports</td>
</tr>
<tr>
<td>KIN 2201</td>
<td>Skill Analysis in Physical Activity: Dual Sports</td>
</tr>
<tr>
<td>KIN 2301</td>
<td>Skill Analysis in Physical Activity: Track and Field</td>
</tr>
<tr>
<td>KIN 2303</td>
<td>Cultural and Scientific Foundations</td>
</tr>
<tr>
<td>KIN 2401</td>
<td>Gymnastics and Fitness Training</td>
</tr>
<tr>
<td>KIN 2411</td>
<td>Rhythmical Activities and Dance</td>
</tr>
<tr>
<td>KIN 2421</td>
<td>Outdoor Activities and Lifetime Sports</td>
</tr>
<tr>
<td>KIN 2423</td>
<td>Management and Organization in Athletics and Sports</td>
</tr>
<tr>
<td>KIN 3003</td>
<td>Computer Applications in Kinesiology and Health</td>
</tr>
<tr>
<td>KIN 3303</td>
<td>Athletic Injuries and Training Procedures</td>
</tr>
<tr>
<td>KIN 3313</td>
<td>Anatomical Kinesiology</td>
</tr>
<tr>
<td>KIN 3323</td>
<td>Biomechanics</td>
</tr>
<tr>
<td>KIN 3433</td>
<td>Exercise Physiology</td>
</tr>
<tr>
<td>KIN 3443</td>
<td>Exercise Prescription</td>
</tr>
<tr>
<td>KIN 4023</td>
<td>Exercise Psychology</td>
</tr>
<tr>
<td>KIN 4103</td>
<td>Motor Development</td>
</tr>
<tr>
<td>KIN 4113</td>
<td>Evaluation</td>
</tr>
<tr>
<td>KIN 4403</td>
<td>Motor Learning</td>
</tr>
<tr>
<td>KIN 4936</td>
<td>Internship in Kinesiology</td>
</tr>
</tbody>
</table>

B. 13 to 15 semester credit hours of support courses:

1. 4 to 5 semester credit hours from the following:
   
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHS 2083</td>
<td>Human Biology: Anatomy and Laboratory</td>
</tr>
<tr>
<td>AHS 2091</td>
<td>Human Biology: Anatomy and Laboratory</td>
</tr>
<tr>
<td>BIO 2123</td>
<td>Comparative Anatomy of Vertebrates and Laboratory</td>
</tr>
<tr>
<td>BIO 2132</td>
<td>Comparative Anatomy of Vertebrates and Laboratory</td>
</tr>
</tbody>
</table>
2. 4 to 5 semester credit hours from the following:

   AHS  2103, 2111 Human Physiology and Laboratory
   or
   BIO  3413, 3422 General Physiology and Laboratory

3. BIO  1212  Laboratory Investigations in Biology
   COM  2123  Oral Interpretation

C. 15 semester credit hours of application courses predetermined and approved by the program advisor from the following:

   HTH  2513  Personal Health Management
   HTH  3523  Worksite Health Promotion
   HTH  3533  Drugs and Health
   HTH  4513  Consumer Health
   HTH  4533  Nutrition and Health
   KIN  4243  Advanced Athletic Training
   MKT  3013  Principles in Marketing

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: Completion of all requirements for admission to teacher certification program, including but not limited to passing scores on all three sections of the TASP and completion of EDP 3103 and EDU 3103. Prior or concurrent enrollment in EDP 4203 is required.
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 hours of observation in the school setting 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.

4913 Independent Study
3 hours credit. Prerequisites: Permission in writing (form available) of the instructor, the student’s advisor, the 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 Curriculum and Instruction
(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 within any one discipline will apply to a bachelor’s degree.

COURSE DESCRIPTIONS
EARLY CHILDHOOD
(ECE)

3103 Young Children’s Literature
(3-0) 3 hours credit.
Study of the written and oral literature for children from birth to second grade, from the combined perspectives of literacy and child development. The history and development of children’s books are stressed, as well as genres, elements, and devices found in the literature. Social, language, and cognitive development of children, technological advances, and diversity of children are considered in relation to children’s literature. Field-based experiences required.
3113 Developmental Play in Early Childhood  
(3-0) 3 hours credit.  
Study of the role of development in play and creative expression during early childhood. Emphasis on physical, cognitive, aesthetic, social, and affective development and creative experiences in structured and unstructured indoor and outdoor environments. Introduction to therapeutic functions of play and adaptive play environments for children with disabilities. Field-based experiences required.

3123 Early Childhood Development  
(3-0) 3 hours credit.  

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.

3203 Tests and Measurements in Early Childhood  
(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 children in the early childhood years. Emphasis on differentiation among criterion-referenced, norm-referenced, individual, informal, authentic, and group tests and measurements. Field-based experiences required.

4103 Guidance of Young Children in Groups  
(3-0) 3 hours credit.  
Study of effective strategies for guiding the socio-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.

4113 Language Development in Early Childhood  
(3-0) 3 hours credit.  

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 child rearing 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. Field-based experiences required.
4303 Approaches to Teaching, Pre-K-Grade 2
(2-2) 3 hours credit. Prerequisites: Completion of all requirements for admission to teacher certification program, including but not limited to passing scores on all three sections of the TASP and completion of EDP 3103, EDU 3103, and IDS 2003.
Study of developmental approaches to teaching diverse groups of children representing a wide range of abilities in preschool and primary grades. Emphasis on development of child-centered curriculum for culturally responsive classroom instruction, evaluation, management, and use of instructional technology. Twenty hours of directed field-based experience in preschool and elementary school classrooms are required. Restricted course; advisor code required for registration.

4403 Approaches to Teaching Grades 3-8
(2-2) 3 hours credit. Prerequisites: Completion of all requirements for admission to teacher certification program, including but not limited to passing scores on all three sections of the TASP and completion of EDP 3103, EDU 3103, IDS 2003, and ECE 4303.
Examination of different pedagogical approaches to the teaching and learning process and how they can be applied in the upper elementary and middle school curriculum, with emphasis on designing interdisciplinary learning experiences, developing children’s cognitive skills, and evaluating teaching and learning. Twenty-five hours of directed field experience in elementary/middle school classrooms are required. Restricted course; advisor code required for registration.

4913 Independent Study
3 hours credit. Prerequisites: Permission in writing (form available) of the instructor, the student’s advisor, the 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 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.

COURSE DESCRIPTIONS
EDUCATIONAL PSYCHOLOGY (EDP)

1702 College Success Seminar
(1-1) 2 hours credit.
Training in the application of self-assessment, time management, budgeting, social skills, and learning/study strategies, with emphasis on the student’s need to succeed in higher education. Laboratory required.

3103 Learning and Development in the Elementary School Child
(3-0) 3 hours credit. Prerequisites: Sophomore standing and passing scores on all three sections of the TASP. IDS 2103 recommended.
An introduction to major theories of learning and development, with an emphasis on applications at the elementary school level. Topics also include individual and group differences, tests and measurements, motivation, and elementary-level classroom management.

3203 Learning and Development in the Secondary School Adolescent
(3-0) 3 hours credit. Prerequisites: Sophomore standing and passing scores on all three sections of the TASP.
An introduction to major theories of learning and development, with an emphasis on applications at the secondary level. Topics include individual and group differences, tests and measurements, motivation, and secondary-level classroom management.
3603  **Introduction to Exceptionality**  
(3-0) 3 hours credit. Prerequisite: Must be taken concurrently with EDP 3643 and EDP 3653 during the Fall Semester.  
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. (Credit may not be earned for both EDP 3603 and IDS 3303.)

3613  **Issues in Deaf Culture and Education: Practicum**  
(3-0) 3 hours credit. Prerequisites: ASL 1013, 1023, 2013, and 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.

3623  **Assessment of Exceptional Children**  
(3-0) 3 hours credit. Prerequisite: EDP 3603 or consent of instructor; must be taken concurrently with EDP 3633 and 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.

3633  **Behavior Management of Exceptional Children**  
(3-0) 3 hours credit. Prerequisite: EDP 3603 or consent of instructor; must be taken concurrently with EDP 3623 and 3663 during the Spring Semester.  
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. Offered in the Spring Semester.

3643  **Language and Cognitive Development and Dysfunction**  
(3-0) 3 hours credit. Prerequisite: Must be taken concurrently with EDP 3603 and 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.

3653  **Practicum in Special Education (Introduction)**  
3 hours credit. Prerequisites: Must be taken concurrently with EDP 3603 and 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. Offered in the Fall Semester.

3663  **Practicum in Special Education (Intermediate)**  
3 hours credit. Prerequisites: EDP 3603, 3643, and 3653; must be taken concurrently with EDP 3623 and 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. Offered in the Spring Semester.
4203  **Assessment and Evaluation for Secondary Teachers**  
(3-0) 3 hours credit. Prerequisites: Completion of all requirements for admission to the teacher certification program, including but not limited to passing scores on all three sections of the TASP, and completion of EDU 3103 and EDP 3203.  
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, norm- and criterion-referenced assessments will also be discussed as well as theoretical and ethical issues related to testing and evaluation. This course is required of all students seeking secondary certification. Restricted course; advisor code required for registration.

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 EDP 4653 during the Summer Session.  
A study of theories, research, and practices of parent and family involvement in the habilitative 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.

4653  **Practicum in Special Education (Advanced)**  
3 hours credit. Prerequisites: EDP 3603, 3623, 3633, 3643, 3653, and 3663; must be taken concurrently with EDP 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.

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.

---

**COURSE DESCRIPTIONS**  
**EDUCATION**  
(EDU)

3103  **Education in American Society**  
(3-0) 3 hours credit. Prerequisites: Sophomore standing and passing scores on all three sections of the TASP. Study of education as a social, economic, and moral force in our nation’s development. Contemporary issues are related to their historical antecedents in order to demonstrate education’s role in a democratic society. Topics discussed include religion and education, the development and structure of American schooling, and legal and ethical aspects of education. (Formerly EDU 3003. Credit cannot be earned for both EDU 3103 and EDU 3003.)

4003  **Student Teaching: Endorsement**  
3 hours credit. Prerequisites: Completion of student teaching requirements for a basic teaching certificate and consent of the director of 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 endorsement area. Individuals pursuing an early childhood endorsement will student teach in a kindergarten classroom; individuals pursuing an English as a second language endorsement (ESL) will be placed in an approved ESL program.  
NOTE: EDU 4003 may **not** be taken concurrently with EDU 4106, 4116, 4126, 4136, 4206, 4403, 4413, 4926, 4933, or 4943.
4106 **Student Teaching: Elementary**
6 hours credit. Prerequisites: Completion of all requirements for admission to the teacher certification program; completion of all requirements for admission to the student teaching semester, including but not limited to a 2.5 cumulative grade point average; passing scores on all three sections of the TASP; and completion of EDU 3103, EDP 3103, ECE 4303, and ECE 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 elementary classroom under the supervision of university faculty. Weekly seminars explore issues in teaching practice.

4116 **Student Teaching: Secondary**
6 hours credit. Prerequisites: Completion of all requirements for admission to the teacher certification program; completion of all requirements for admission to the student teaching semester, including but not limited to a 2.5 cumulative grade point average; passing scores on all three sections of the TASP; and completion of EDU 3103, EDP 3203, EDP 4203, and 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 6–12. Individuals pursuing a Basic Secondary Certificate, Option I, will student teach in the single teaching field for which certification is sought. Individuals pursuing a Basic Secondary Certificate, Options II or IV, will student teach in two of the teaching fields for which certification is sought. Meets student teaching requirements for a Secondary Certificate, Options I, II, and IV.

4126 **Student Teaching: Secondary-ESL**
6 hours credit. Prerequisites: Completion of all requirements for admission to the teacher certification program; completion of all requirements for admission to the student teaching semester, including but not limited to a 2.5 cumulative grade point average; passing scores on all three sections of the TASP; completion of a minimum of 6 semester credit hours of the ESL endorsement; and completion of EDU 3103, EDP 3203, EDP 4203, and 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 6-12, 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. 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. Meets student teaching requirements for a Secondary Certificate, Options I, II, or IV, with an ESL endorsement.

4136 **Student Teaching: All Level**
6 hours credit. Prerequisites: Completion of all requirements for admission to the teacher certification program; completion of all requirements for admission to the student teaching semester, including but not limited to a 2.5 cumulative grade point average; passing scores on all three sections of the TASP; and completion of EDU 3103, EDP 3203, and ECE 4403. 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 school (grades 1-8) and six weeks of full days in a secondary school (grades 6-12) in the certificate area sought. Meets student teaching requirements for the all-level certificate. NOTE: Individuals may not concurrently pursue an all-level certificate and an endorsement in early childhood and/or English as a second language (ESL).

4206 **Student Teaching-Dual Placement: Elementary with Early Childhood, Elementary with Generic Special Education, or Bilingual Education with Early Childhood Endorsement**
6 hours credit. Prerequisites: Completion of all requirements for admission to the teacher certification program; completion of all requirements for admission to the student teaching semester, including but not limited to a 2.5 cumulative grade point average; passing scores on all three sections of the TASP; and completion of EDU 3103, EDP 3103, ECE 4303, and ECE 4403. Individuals must apply to the director of student teaching one semester in advance. For elementary with early childhood and elementary with generic special education endorsements, six consecutive weeks of full-day student teaching in a regular elementary classroom and six consecutive weeks in an early childhood or special education classroom under the supervision of University faculty. For bilingual education with early childhood endorsement, both the elementary and early childhood placements must be in bilingual classrooms. Weekly seminars explore issues in teaching practice.
4403  **Student Teaching: All-Level Music-Elementary**
3 hours credit. Prerequisites: Concurrent enrollment in EDU 4413; completion of all requirements for admission to the teacher certification program; completion of all requirements for admission to the student teaching semester, including but not limited to a 2.5 cumulative grade point average; passing scores on all three sections of the TASP; and completion of EDU 3103, EDP 3103, ECE 4403, 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 school (grades 1-8) under the supervision of university faculty. Meets student teaching requirements for the elementary component of the all-level certificate.

4413  **Student Teaching: All-Level Music-Secondary**
3 hours credit. Prerequisites: Concurrent enrollment in EDU 4403; completion of all requirements for admission to the teacher certification program; completion of all requirements for admission to the student teaching semester, including but not limited to a 2.5 cumulative grade point average; passing scores on all three sections of the TASP; and completion of EDU 3103, EDP 3103, ECE 4403, 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 a secondary school (grades 6-12) under the supervision of University faculty. Meets student teaching requirements for the secondary component of the all-level certificate.

4926  **Internship in Education**
6 hours credit. Prerequisites: A bachelor’s degree; completion of all requirements for admission to the teacher certification program; completion of all coursework requirements for the certification program; consent of the Office of Teacher Advising, Certification, and Placement; 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. Weekly seminars explore issues in teaching practice.

4933  **Internship in Education-IDS**
3 hours credit. Prerequisites: A bachelor’s degree; completion of all requirements for admission to the teacher certification program; completion of all coursework requirements for the certification program; consent of the Office of Teacher Advising, Certification, and Placement; and consent of the director of student teaching.
Internship 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. Students may register for this course more than once, but no more than 6 semester credit hours will apply to the postbaccalaureate program.

4943  **Internship in Education-Secondary**
3 hours credit. Prerequisites: A bachelor’s degree; completion of all requirements for admission to the teacher certification program; completion of all coursework requirements for the certification program; consent of the Office of Teacher Advising, Certification, and Placement; consent of the director of student teaching.
Internship 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. Students may register for this course more than once, but no more than 6 semester credit hours will apply to the postbaccalaureate program.

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.

4993  **Honors Thesis**
3 hours credit. Prerequisites: Enrollment limited to candidates for honors in the Division of Education during the last two semesters; approval by the honors program coordinator.
Supervised research and preparation for an honors thesis. May be repeated once with advisor’s approval.
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 less 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 three semester credit hours of freshman topics courses may apply to a bachelor’s degree, although this specific topic may be taken only once.

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. (Formerly KAH 2513. Credit cannot be earned for both HTH 2513 and KAH 2513.)

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. Opportunity to earn Texas Department of Health Emergency Care Attendant Certificate. (Formerly KAH 4543. Credit cannot be earned for both HTH 2523 and KAH 4543.) [TCCN: PHED 1306.]

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. (Formerly KAH 2503. Credit cannot be earned for both HTH 3503 and KAH 2503.)

3513  Issues in Community Health
(3-0) 3 hours credit. Prerequisite: HTH 3503 or consent of instructor.
Study of community health problems and the function and organization of public, private, and voluntary health agencies. (Formerly KAH 3513. Credit cannot be earned for both HTH 3513 and KAH 3513.)

3523  Worksite Health Promotion
(3-0) 3 hours credit. Prerequisite: HTH 3513, KIN 2303, or consent of instructor.
Organization, administration, and supervision of health programs in the community, school, business, or industry setting. (Formerly KAH 3523. Credit cannot be earned for both HTH 3523 and KAH 3523.)

3533  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. (Formerly KAH 3533. Credit cannot be earned for both HTH 3533 and KAH 3533.)

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. (Formerly KAH 3543. Credit cannot be earned for both HTH 3543 and KAH 3543.)

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. (Credit cannot be earned for both HTH 3553 and the section of KAH 4953 that was offered in Spring 1993.)
4503  **Survey of Human Disease**  
(3-0) 3 hours credit.  
An in-depth look at the etiology, prevention, and treatment of chronic and contagious diseases afflicting humans.

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. (Formerly KAH 4513. Credit cannot be earned for both HTH 4513 and KAH 4513.)

4523  **Understanding Human Sexuality**  
(3-0) 3 hours credit.  
Study of the psychosocial and physical aspects of human sexuality and their impact on our lives. (Formerly KAH 4523. Credit cannot be earned for both HTH 4523 and KAH 4523.)

4533  **Nutrition and Health**  
(3-0) 3 hours credit.  
A practical approach to understanding the principles of nutrition and their effect on health and fitness. (Formerly KAH 4533. Credit cannot be earned for both HTH 4533 and KAH 4533.)

4913  **Independent Study**  
3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student’s advisor, and the 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.

4936  **Internship in Health**  
6 hours credit. Prerequisites: 18 semester credit hours of health coursework and permission of the 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 KAH 4956.)

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.

**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 less 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 three semester credit hours of freshman topics courses may apply to a bachelor’s degree, although this specific topic may be taken only once.
2003  **Modes of Inquiry across the Fields of Study**  
(3-0) 3 hours credit. Prerequisites: ENG 1013 and 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 4113. Credit cannot be earned for both IDS 2003 and IDS 4113.)

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 lab 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.

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.

2123  **Wellness and Fitness Management**  
(3-0) 3 hours credit.  
This course is designed to provide IDS students with developmentally appropriate knowledge and skills in health and fitness. Part one of the course will address health-related issues in personal, interpersonal, and community settings. The second part of the course will discuss the development and acquisition of motor-perceptual and sport skills.

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 fifteenth 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. [TCCN: HIST 2321.]

2213  **World Civilization since the Fifteenth Century**  
(3-0) 3 hours credit.  
A general introduction to World History since the late fifteenth 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. [TCCN: HIST 2322.]

2303  **World Literature I: The Narrative Mode**  
(3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent.  
Explorations of the narrative mode in literature across the world and across time. Readings include such works as *Genesis*, the *Odyssey*, *Black Elk Speaks*, *Things Fall Apart*, and a variety of short fiction. [TCCN: ENGL 2331.]

2313  **World Literature II: Dramatic and Lyric Modes**  
(3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent.  
Exploration of the dramatic and lyric modes in literature across the world and across time. Works such as *Medea*, *Blood Wedding*, the screenplay for *Citizen Kane*, and an anthology of lyric poetry will be studied. Films will be viewed in class in conjunction with the reading of screenplays; the question of translation will be addressed in conjunction with lyric poetry. [TCCN: ENGL 2333.]
**3001 Laboratory Workshop**  
(0-1) 1 hour credit. Prerequisite: Completion of or concurrent enrollment in IDS 3003 required.  
This course is designed to provide pre-service teachers of elementary school children with an enhanced knowledge of physical and life science content. The main topics addressed in this laboratory workshop are an introduction to scientific problem solving and the basic operations of a science laboratory. Additionally, some direction on how to organize a science laboratory, maintain safety equipment, the use, storage and disposal of toxic substances, and the legal aspects of the Texas Right to Know Laws will be addressed. This course may not be applied to a degree in a science discipline.

**3003 Science and Humanity**  
(3-0) 3 hours credit. Prerequisite: Successful completion of MAT 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.

**3103 Language and Culture in a Pluralistic Society**  
(3-0) 3 hours credit.  
Investigation of research findings related to cultural processes in institutional and societal contexts. The course examines theoretical principles related to different facets of language in society, including bilingualism, and explores culturally inclusive responses to human needs in pluralistic settings.

**3303 Studies in Exceptionality**  
(3-0) 3 hours credit.  
Study of the nature, needs, characteristics, causes, and incidence of exceptional children, including historical and legal foundations for identifying and serving exceptional children under state and federal regulations. Community options for exceptional children at various levels of ability will also be addressed. (Credit may not be earned for both IDS 3303 and EDP 3603.)

**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) of the instructor, the student’s advisor, the 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 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.
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 not more than 6 semester credit hours of KIN 1011 or KAH 1011, alone or in combination with KIN 1101 or KAH 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 less 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 three 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 not more than 6 semester credit hours of KIN 1101 or KAH 1101, alone or in combination with KIN 1001 or KAH 1001, will apply to a bachelor’s degree.

2001 Skill Analysis in Physical Activity: Individual Activities
(0-3) 1 hour credit.
Specialized activity instruction involving skills, drills, rules, regulations, and skill performance in a variety of selected individual activities. (Formerly KAH 2001. Credit cannot be earned for both KIN 2001 and KAH 2001.)

2101 Skill Analysis in Physical Activity: Team Sports
(0-3) 1 hour credit.
Specialized activity instruction involving skills, drills, rules, regulations, and skill performance in a variety of selected team sports. (Formerly KAH 2101. Credit cannot be earned for both KIN 2101 and KAH 2101.)

2201 Skill Analysis in Physical Activity: Dual Sports
(0-3) 1 hour credit.
Specialized activity instruction involving skills, drills, rules, regulations, and skill performance in a variety of selected dual sports.

2301 Skill Analysis in Physical Activity: Track and Field
(0-3) 1 hour credit.
Specialized activity instruction involving skills, drills, rules, regulations, and skill performance in a variety of selected track and field events.

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. (Formerly KAH 2303. Credit cannot be earned for both KIN 2303 and KAH 2303.) [TCCN: KINS 1301.]

2401 Gymnastics and Fitness Training
(0-3) 1 hour credit.
Practice in gymnastic and fitness activities for the kinesiology major. (Formerly KAH 2401. Credit cannot be earned for both KIN 2401 and KAH 2401.)
2411  Rhythmical Activities and Dance  
(0-3) 1 hour credit.  
Practice in rhythmical techniques and various types of dance. (Formerly KAH 2411. Credit cannot be earned for both KIN 2411 and KAH 2411.)

2421  Outdoor Activities and Lifetime Sports  
(1-2) 1 hour credit. Prerequisites: HTH 2523 or consent of instructor.  
Practice in outdoor activities and life sports. Weekend class field trips required. Lab fee will be assessed. (Formerly KIN 2433 and KAH 2433. Credit cannot be earned for both KIN 2421 and either KIN 2433 or KAH 2433.)

2423  Management and Organization in Athletics 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.]

3003  Computer Applications in Kinesiology and Health  
(3-0) 3 hours credit. Prerequisites: KIN 2303 or HTH 3503 or consent of instructor.  
Application of computer and multimedia technology in Kinesiology and Health disciplines.

3303  Athletic Injuries and Training Procedures  
(3-0) 3 hours credit. Prerequisite: HTH 2523.  
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. (Formerly KAH 3303. Credit cannot be earned for both KIN 3303 and KAH 3303.)

3313  Anatomic Kinesiology  
(3-0) 3 hours credit. Prerequisite: KIN 2303.  
Study of the systems of the human body that cause movement and motion. The science of kinesiology involves basic musculoskeletal concepts, applied myology, and the application of kinesiology theory. (Formerly AHS 3113. Credit cannot be earned for both KIN 3313 and AHS 3113.)

3323  Biomechanics  
(2-2) 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 or consent of instructor.  
Administration of games, sports, and physical fitness activities for the adolescent through adulthood. Some fieldwork experience may be required. (Formerly KAH 3413. Credit cannot be earned for both KIN 3413 and KAH 3413.)

3433  Exercise Physiology  
(2-2) 3 hours credit. Prerequisites: KIN 2303 or HTH 3503 or consent of instructor.  
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  Exercise Prescription  
(3-0) 3 hours credit. Prerequisite: KIN 3433 or consent of instructor  
Analysis of the nature of physical fitness, basic principles and concepts of exercise and fitness, and the development and implementation of individually prescribed exercise training programs. An individual fitness requirement is mandatory for passing the course. (Formerly KAH 3443. Credit cannot be earned for both KIN 3443 and KAH 3443.)
4023 Exercise Psychology  
(3-0) 3 hours credit. Prerequisite: KIN 2303 or consent of instructor.  
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.

4103 Motor Development  
(3-0) 3 hours credit. Prerequisite: KIN 2303 or HTH 3503 or consent of instructor.  
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.

4113 Evaluation  
(3-0) 3 hours credit. Prerequisite: KIN 3003 or consent of instructor.  
Application of test, measurement, and evaluation theory. Emphasis is on proper selection and administration of tests  
and appropriate evaluation of test results using basic statistical procedures. (Formerly KAH 4113. Credit cannot be  
earned for both KIN 4113 and KAH 4113.)

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 personalogy,  
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 rehabilitation, the use of modalities, and  
various taping and wrapping techniques, along with hands-on evaluations. A two-hour lab will accompany this class.  
Lab fee will be assessed.

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  
(3-0) 3 hours credit. Prerequisites: KIN 3433 and KIN 3443 or consent of instructor.  
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.

4343 Movement Awareness  
(3-0) 3 hours credit. Prerequisite: KIN 2303.  
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. (Formerly KAH 4343. Credit  
cannot be earned for both KIN 4343 and KAH 4343.)

4403 Motor Learning  
(3-0) 3 hours credit. Prerequisite: KIN 2303.  
Functional applications of motor control and learning theory in skill instruction and sports performance. Motor  
learning laboratory required. Lab fee will be assessed. (Formerly KAH 4403. Credit cannot be earned for both KIN  
4403 and KAH 4403.)

4413 Coaching Athletics  
(3-0) 3 hours credit. Prerequisite: KIN 2303.  
Theory of coaching relevant to athletics. Emphasis on organization and content involved in coaching a variety of  
sports. (Formerly KAH 4413. Credit cannot be earned for both KIN 4413 and KAH 4413.)
4423  Developmental/Adaptive Physical Activity  
(3-0) 3 hours credit. Prerequisite: KIN 4103 or consent of instructor.  
A developmental approach to the study of disabilities in physical activity. Legislation, pathologies, and adaptation principles. Class field trips required. (Formerly KAH 4423. Credit cannot be earned for both KIN 4423 and KAH 4423.)

4913  Independent Study  
3 hours credit. Prerequisite: Permission in writing (form available) from the instructor, the student’s advisor, the 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.

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 not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor’s degree.

COURSE DESCRIPTIONS  
READING  
(RDG)

0011  Reading Review  
(1-0) 1 hour credit.  
Individualized instruction to help students succeed at reading university-level materials. Students receive focused guidance on developing specific strategies that improve performance, including determining word meaning, understanding main ideas, identifying the writer’s purpose, and using critical reasoning and study skills. Course does not count toward any degree at UTSA.

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.

3603  Introduction to Developmental Reading  
(3-0) 3 hours credit.  
An overview of the development of reading across the grades. Special emphasis is placed on how reading is learned and taught from kindergarten through eighth grade. The course focuses on teaching techniques for developing oral and written language facility, word identification, and comprehension in readers of various sociocultural backgrounds and abilities, and addresses the issue of classroom assessment of reading. (Formerly RDG 3703. Credit cannot be earned for both RDG 3603 and RDG 3703.)
3613 Early Literacy Learning
(3-0) 3 hours credit. Prerequisite: RDG 3603.
Focuses on the study of early literacy learning and the way in which it is related to oral language development, with a particular focus on cultural diversity. Special emphasis is placed on emergent reading and writing, development of phonemic awareness, decoding, and other early word analysis strategies, and ways in which these strategies support meaning construction. Additional emphasis will be placed on the role of the family in early literacy development and the assessment of early literacy learning. Ten hours of field-based experience required.

3623 Introduction to Content Area Reading-Elementary
(3-0) 3 hours credit. Prerequisite: RDG 3603.
Study of the learning and teaching of reading in the various content areas of the elementary school. The course considers the range of reading abilities of elementary students, texts used in elementary schools, and strategies for teaching and evaluating vocabulary, comprehension, and thinking skills in the elementary content areas. (Formerly RDG 3713. Credit cannot be earned for both RDG 3623 and RDG 3713.)

3723 Children’s and Adolescent Literature
(3-0) 3 hours credit.
Study of written and oral literature for children and adolescents from the combined perspectives of literary and child-adolescent development. The history and development of children’s and adolescent books are stressed, as well as genres, elements, and devices found in the literature. Such factors are discussed in light of the learner’s social and cognitive development.

3733 Reading Problems
(3-0) 3 hours credit. Prerequisites: RDG 3603, 3613, 3623, and 4103.
Study of intellectual, psycholinguistic, neuropsychological, affective, and social factors related to difficulty in decoding and comprehending written text. Attention is also given to a variety of means for assessing literacy achievement and skill and to how reading problems can be addressed. Thirty hours of directed field experience in elementary/middle school classrooms are required.

3743 Language, Literacy, and Culture
(3-0) 3 hours credit. Prerequisites: RDG 3603, 3613, and 3623.
Considers language development, first- and second-language reading and writing processes, the role of culture and ethnicity, social and regional language variation, socioeconomic factors, and linguistic and cultural diversity as they relate to literacy in various communities and school settings.

3753 Oral Language and Reading
(3-0) 3 hours credit. Prerequisites: RDG 3603, 3613, and 3623.
Study of the relations between oral language and reading. Topics include sound-symbol relations and the reading process, dialect and reading, second-language learning and reading, and relations between oral and written discourse.

3763 Reading and Studying as a Cognitive Process
(3-0) 3 hours credit. Prerequisites: RDG 3603 and 3623.
Examines reading as a cognitive process and its role in study practices in school. Considers attitude and motivational factors, text types and study, use of outlines, note-taking, summary writing, synthesis, and critical thinking and analysis. Cognitive processes, memory, metacognitive strategies, and test-taking skills are addressed.

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 passing scores on all three sections of the TASP, and completion of EDU 3103 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, comprehension, and learning in a variety of content areas. Directed field experiences in secondary school classrooms are required. Opportunities for cross-disciplinary applications. Not offered in the summer. Restricted course; advisor code required for registration.
Assessment Practices in Reading
(3-0) 3 hours credit. Prerequisites: RDG 3603, 3613, and 3623.
Examines current issues, practices, and perspectives about assessment in literacy. The focus is on a broad view of
assessment that includes examination of different levels and forms of evaluation currently used in schools. Explores
the strengths and weaknesses of assessment tools for reading and writing, including formal and informal practices.

Reading Comprehension
(3-0) 3 hours credit. Prerequisites: RDG 3603, 3613, and 3623.
Study of the reading comprehension process, including how various textual, reader-based, and contextual factors
affect the understanding of written text and how reading comprehension can be maximized. Twenty hours of directed
field experience in elementary/middle school classrooms are required.

Relationships between Reading and Writing
(3-0) 3 hours credit. Prerequisites: RDG 3603, 3613, and 3623.
Examines how knowledge of written language and the writing process can help individuals become more effective
readers and writers. Focuses on the role of author-reader relationships, audience, text structure, purpose, and meaning
across reading-writing situations.

The Social Psychology of Literacy
(3-0) 3 hours credit. Prerequisites: RDG 3603 and 3623.
Social and sociolinguistic factors that influence speaking, reading, and writing in various social situations are
considered. Attention is given to adult-child interaction, peer groups, discourse community, school organization, and
student and teacher expectations, beliefs, and values about learning and teaching.

Critical Issues in Reading Research
(3-0) 3 hours credit. Prerequisites: RDG 3603, 3613, and 3623.
Examines issues critical to the field of reading and reading education using a special topics format. Critical research
issues, including such themes as text processing, text response and interpretation, beginning reading, and assessment
of literacy learning will be addressed, as well as new research measures and implications of research findings for
educational theory and practice.

Independent Study
3 hours credit. Prerequisites: Permission in writing (form available) of the instructor, the student’s advisor, the
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.

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.

Minor in Youth and Human Services

The Minor in Youth and Human Services provides the opportunity to prepare for leadership positions in youth and human
service nonprofit agencies. In addition to the formal courses, students minoring in youth and human services are expected to
actively participate in the Youth and Human Services Student Organization, an integral part of their training.
All students pursuing a Minor in Youth and Human Services must complete 22 semester credit hours.

- **ACC 2003** Foundations of Accounting
  or  
- **ACC 2013** Principles of Accounting I

- **MGT 3803** Strategic Management of Nonprofit Organizations  
- **MKT 3013** Principles of Marketing  
- **YHS 3003** Fundraising in Nonprofit Agencies  
- **YHS 3013** Introduction to Youth and Human Service Agencies  
- **YHS 4901** American Humanics Management Institute  

- **YHS 4933** Internship in Youth and Human Services (2 semesters)  
  or  
- **YHS 4936** Internship in Youth and Human Services

To declare a Minor in Youth and Human Services, obtain advice, obtain lists of relevant courses, or seek approval of substitutions for course requirements, students should consult the coordinator of the Youth and Human Services Program located in the Division of Education.

### COURSE DESCRIPTIONS

#### YOUTH AND HUMAN SERVICES (YHS)

**3003 Fundraising in Nonprofit Agencies**  
(3-0) 3 hours credit.  
Examines methods, techniques, and directed experience in fundraising for youth and human service not-for-profit agencies. Explores relationships with umbrella organizations, government funding, grantsmanship, budget control, and accountability.

**3013 Introduction to Youth and Human Service 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, fundraising, 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 are modalities utilized in this course. (Formerly YHS 1003. Credit cannot be earned for both YHS 3013 and YHS 1003.)

**4901 American Humanics Management Institute**  
1 hour credit.  
A one-hour course requiring students to pay their own expenses to attend one American Humanics Management Institute. May be repeated once for credit.

**4933 Internship in Youth and Human Services**  
3 hours credit. Prerequisite: Approval of youth and human services coordinator.  
Supervised experience relevant to youth and human services within selected youth and human service not-for-profit agencies. May be repeated for credit, but not more than 6 semester credit hours may be earned through the internship.

**4936 Internship in Youth and Human Services**  
6 hours credit. Prerequisite: Approval of youth and human services coordinator.  
Supervised experience relevant to youth and human services within selected youth and human service not-for-profit agencies.
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 and demonstrate in writing basic knowledge of ASL grammar rules.

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.

2013 American Sign Language: Intermediate I
(3-0) 3 hours credit. Prerequisites: ASL 1013 and 1023, or consent of instructor.
This course is designed to help students improve their expressive, receptive, and general conversational ASL proficiency, particularly in phonology, morphology, semantics, syntax, lexicon, and discourse. Students will demonstrate their use of ASL for interactive purposes.

2023 American Sign Language: Intermediate II
(3-0) 3 hours credit. Prerequisites: ASL 1013, 1023, and 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.
DIVISION OF BICULTURAL-BILINGUAL STUDIES

The Division of Bicultural-Bilingual Studies offers a Bachelor of Arts degree in Mexican American Studies (offered jointly with the Divisions of Behavioral and Cultural Sciences, Social and Policy Sciences, and Foreign Languages), as well as Minors in Bicultural Studies and English as a Second Language. 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 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 they 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.

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 four options: history, 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric** (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
| **Domain I: Mathematics and Science** | **Mathematics** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
**Science** (6 semester credit hours)  
Three hours from Level One and three hours from Level Two will satisfy this core requirement. |
Degree Requirements

A. 21 semester credit hours of Mexican American studies:

1. 18 required semester credit hours:
   - **United States History and Diversity** (6 semester credit hours)
     Any six hours listed under this section in the list of core courses will satisfy this core requirement.
   - **Political Studies** (6 semester credit hours)
     Any six hours listed under this section in the list of core courses will satisfy this core requirement.
   - **Social and Behavioral Sciences** (3 semester credit hours)
     BBL 2003 Language, Culture, and Society
     or
     BBL 3133 Communicative Competence in a Multilingual Society
     BBL 2013 Introduction to Chicano(a) Studies
     BBL 2023 Latino Cultural Expressions
     SOC 1013 Introduction to the Study of Society
   - **Economics** (3 semester credit hours)
     Any three hours listed under this section in the list of core courses will satisfy this core requirement.

2. 3 semester credit hours selected from the following:
   - **Psychosocial Processes in Bicultural-Bilingual Environments**
     BBL 3043
   - **Mexican American Politics (required for political science option)**
     POL 3093
   - **Mexican American Stratification (required for sociology option)**
     SOC 3403

---

**Domain II: Society and Culture**

<table>
<thead>
<tr>
<th>United States History and Diversity</th>
<th>(6 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any six hours listed under this section in the list of core courses will satisfy this core requirement.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Political Studies</th>
<th>(6 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any six hours listed under this section in the list of core courses will satisfy this core requirement.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social and Behavioral Sciences</th>
<th>(3 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBL 2003 Language, Culture, and Society</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>BBL 3133 Communicative Competence in a Multilingual Society</td>
<td></td>
</tr>
<tr>
<td>BBL 2013 Introduction to Chicano(a) Studies</td>
<td></td>
</tr>
<tr>
<td>BBL 2023 Latino Cultural Expressions</td>
<td></td>
</tr>
<tr>
<td>SOC 1013 Introduction to the Study of Society</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Economics</th>
<th>(3 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
<td></td>
</tr>
</tbody>
</table>

**Domain III: Literature and the Arts**

<table>
<thead>
<tr>
<th>Literature</th>
<th>(3 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The Arts</th>
<th>(3 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBL 2023 Latino Cultural Expressions</td>
<td></td>
</tr>
</tbody>
</table>

**Domain IV: Interdisciplinary Studies**

<table>
<thead>
<tr>
<th>(3 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>
B. 18 semester credit hours of required courses completed in one of the following options:

**Option in History**

a. 6 required semester credit hours:

HIS 2003 Historical Methods

HIS 4303 Quantitative Methods in History

or

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 3163 The Stranger in America

HIS 3463 History of Religion in the United States

HIS 3473 History of Women 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

b. 3 semester credit hours from the following:

ENG 2383 Minority Voices in American Literature

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:

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.]

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.]

d. 3 semester credit hours:

ENG 4613 Topics in Mexican American Literature
e. 3 semester credit hours from the following:

AMS 3043  Topics in Ethnic American Cultures [When taught by a MAS affiliate or when focus is on Chicano/Latino content.]
BBL 3023  Mexican American Culture

f. 3 semester credit hours:

ENG 4953  Special Studies in English

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
SOC 3343  Classical Sociological Theory
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 and Adjustment
SOC 3283  Poverty
SOC 3293  Sex Roles
SOC 3413  Mexican American Family
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
     or
   SPN 4103 Composition Workshop
   SPN 3463 Latin American Literature to Modernism
     or
   SPN 3473 Latin American Literature since Modernism
   SPN 3623 Latin American Culture and Civilization
     or
   SPN 3663 Contemporary Latin America
     or
   SPN 3673 Hispanic Cultural Systems
   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 Communicative Competence in a Multilingual Society
   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 (For BBL 4953 to count toward this minor, the student must obtain permission from the undergraduate advisor in the Division of Bicultural-Bilingual Studies.)
To declare a Minor in Bicultural Studies, obtain advice, or seek approval of substitutions for course requirements; students should consult the undergraduate advisor in the Division of Bicultural-Bilingual Studies.

**COURSE DESCRIPTIONS**

**BICULTURAL—BILINGUAL STUDIES (BBL)**

1001 Freshman Topics in Mexican American Studies  
(1-1) 1 hour credit.  
Offered for entering freshmen with less than 15 hours of college credit. Critical study of topics in Mexican American 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 three semester credit hours of freshman topics courses may apply to a bachelor’s degree, although this specific topic may be taken only once.

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. [TCCN: SOCI 2319.]

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. [TCCN: SPAN 2324.]

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. (Formerly BBL 3003. Credit cannot be earned for both BBL 2033 and BBL 3003.) [TCCN: SOCI 2320.]

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.

3133 Communicative Competence in a Multilingual Society  
(3-0) 3 hours credit.  
A study of language in its social and cultural contexts, with emphasis on factors affecting language choice and attitudes in multilingual settings. Examination of strategies to promote first- and second-language acquisition in schools and communities.

4023 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.

4033 Assessing Language and Learning in Bicultural-Bilingual Contexts  
(3-0) 3 hours credit.  
A survey of evaluation and testing procedures in bicultural-bilingual settings, including formal and informal assessment of language proficiency for instructional purposes and the appropriate use of standardized tests with multicultural populations.

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 language distribution strategies. Taught in Spanish.

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.

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) of 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.
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 undergraduate advisor is required.

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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESL 3003</td>
<td>Applications of Linguistics</td>
</tr>
<tr>
<td>ESL 3033</td>
<td>Foundations in English as a Second Language</td>
</tr>
<tr>
<td>ESL 3053</td>
<td>Literacy in a Second Language</td>
</tr>
</tbody>
</table>

And one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBL 3013</td>
<td>Language Analysis and Bilingualism</td>
</tr>
<tr>
<td>BBL 3133</td>
<td>Communicative Competence in a Multilingual Society</td>
</tr>
</tbody>
</table>

B. 3 semester credit hours of courses on culture and society selected from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBL 2033</td>
<td>Multiculturalism in the Southwest</td>
</tr>
<tr>
<td>BBL 3023</td>
<td>Mexican American Culture</td>
</tr>
<tr>
<td>BBL 3033</td>
<td>The Mexican American in the Southwest</td>
</tr>
</tbody>
</table>

C. 3 semester credit hours of courses on language minority education selected from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBL 4023</td>
<td>Foundations of Bilingual Studies</td>
</tr>
<tr>
<td>BBL 4033</td>
<td>Assessing Language and Learning in Bicultural-Bilingual Contexts</td>
</tr>
<tr>
<td>BBL 4953</td>
<td>Special Studies in Bilingual and Bicultural Studies*</td>
</tr>
</tbody>
</table>

*For BBL 4953 to count toward this minor, the student must obtain permission from the undergraduate advisor in the Division of Bicultural-Bilingual Studies.

To declare a Minor in English as a Second Language, obtain advice, or seek approval of substitutions for course requirements,
students should consult the undergraduate advisor in the Division of Bicultural-Bilingual Studies.

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.
3033 **Foundations in English as a Second Language**
(3-0) 3 hours credit.
Introduction to the field of English as a second language, with attention to basic concepts of second-language processing in various language learning contexts.

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.

**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 **ESL for International Students: Reading**
(3-0) 3 hours credit.
Development of reading proficiency needed in various disciplines for academic purposes. (Formerly ESL 1083. Credit cannot be earned for both EIS 1083 and ESL 1083.)

1093 **ESL for International Students: Writing**
(3-0) 3 hours credit.
Development of writing proficiency needed in various disciplines for academic purposes. (Formerly ESL 1093. Credit cannot be earned for both EIS 1093 and ESL 1093.)
TABLE OF CONTENTS

CHAPTER FOUR
COLLEGE OF ENGINEERING

College of Engineering ......................................................................................................................139
  Cooperative Education in Engineering Program ..............................................................................139
  Degree Requirements Common to All Programs .............................................................................139
  B.S. in Civil Engineering ..............................................................................................................141
  B.S. in Electrical Engineering ......................................................................................................147
  B.S. in Mechanical Engineering ..................................................................................................156

Reserve Officer Training Corps Programs ......................................................................................165
  Air Force ......................................................................................................................................165
  Minor in Aerospace Studies .........................................................................................................166
  Army ........................................................................................................................................168
CHAPTER 4

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 student’s 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 1-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. 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 29 semester credit hours:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 1103</td>
<td>General Chemistry</td>
<td></td>
</tr>
<tr>
<td>EGR 1303</td>
<td>Exploring the Engineering Profession</td>
<td></td>
</tr>
<tr>
<td>EGR 2213</td>
<td>Statics and Dynamics</td>
<td></td>
</tr>
<tr>
<td>EGR 2323</td>
<td>Applied Engineering Analysis I</td>
<td></td>
</tr>
<tr>
<td>MAT 1214</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MAT 1223</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>PHY 1904, 1911</td>
<td>Technical Physics I and Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHY 1924, 1931</td>
<td>Technical Physics II and Laboratory</td>
<td></td>
</tr>
</tbody>
</table>

COURSE DESCRIPTIONS

ENGINEERING

(EGR)

1303 Exploring the Engineering Profession
(3-1) 3 hours credit.
Engineering as a career; professional and ethical responsibility including case studies; effective team membership; application of modern tools for effective written and oral communication; approaches to engineering problem formulation and solution; and engineering design. One hour of problem solving recitation, experiments, and laboratory demonstrations.

2213 Statics and Dynamics
(3-0) 3 hours credit. Prerequisites: MAT 1223 and PHY 1904.
Force, moment, equilibrium, centroids and moments of inertia, kinematics, and kinetics of particles.

2323 Applied Engineering Analysis I
(3-1) 3 hours credit. Prerequisite: MAT 1223.
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: Junior or senior standing in the Division of Engineering. 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. 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.

Bachelor of Science Degree in Civil Engineering  
The Bachelor of Science degree in Civil Engineering is a broad-based program designed to prepare students for careers in areas traditionally associated with civil engineering and several modern areas of high technology.

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 educational objectives of the Bachelor of Science degree in Civil Engineering are to prepare students to enter the profession of civil engineering, to prepare students for graduate study, and to prepare students to engage in life-long learning. The curriculum is designed to provide a foundation for work in most areas of the profession including environmental engineering, geotechnical engineering, hydraulics, hydrology, water resources, structural engineering, and transportation/traffic engineering.
Specifically the graduates will have the opportunity to develop:

1. an ability to apply their knowledge of mathematics and science
2. an ability to collect, analyze, and interpret data
3. an ability to design a system, component or process to meet desired needs
4. an ability to function on a team
5. an ability to identify, formulate, and solve civil engineering problems using techniques, skills, and modern tools necessary for civil engineering practice
6. an understanding of professional and ethical responsibility, particularly the ASCE Code of Ethics
7. an ability to communicate effectively
8. breadth in their general education as well as depth in their technical education

Senior civil engineering students are encouraged to take the Fundamentals of Engineering Exam. 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 division’s general engineering requirements. These general engineering requirements are selected to provide the necessary technical abilities and skills to meet the educational objectives of the division. These courses include the introductory engineering course, EGR 1303 Exploring the Engineering Profession, and EGR 2213 Statics and 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 3413 Geotechnical Engineering and Applications, CE 3633 Water and Wastewater Treatment, CE 4123 Highway Engineering, and CE 4603 Water Resources Engineering. Design also is included in many of the elective courses, including CE 3233 Steel Design, CE 3723 Applied Hydrology, CE 4233 Transportation Systems, CE 4413 Foundation Analysis and Design, and CE 4653 Design of Pollution Control Systems. The design experience culminates in a major senior capstone design course, CE 4813 Civil Engineering Design. The capstone design project is multi-disciplinary 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 5-10 of this catalog.
### Core Curriculum Requirements

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rhetoric</strong> (6 semester credit hours)</td>
<td>All students must take the following six hours to meet this core requirement:</td>
</tr>
<tr>
<td></td>
<td>ENG 1013 Freshman Composition</td>
</tr>
<tr>
<td></td>
<td>ENG 1023 Discourse across the Disciplines</td>
</tr>
<tr>
<td><strong>Domain I: Mathematics and Science</strong></td>
<td><strong>Mathematics</strong> (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td><strong>Science</strong> (6 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Three hours from Level One and three hours from Level Two will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Domain II: Society and Culture</strong></td>
<td><strong>United States History and Diversity</strong> (6 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any six hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td><strong>Political Studies</strong> (6 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any six hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td><strong>Social and Behavioral Sciences</strong> (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td><strong>Economics</strong> (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td><strong>Domain III: Literature and the Arts</strong></td>
<td><strong>Literature</strong> (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td><strong>The Arts</strong> (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td><strong>Domain IV: Interdisciplinary Studies</strong></td>
<td>(3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>

### General Engineering Requirements

All degree-seeking candidates in engineering must complete the following 29 semester credit hours, as well as the Core Curriculum requirements and major requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 1103</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>EGR 1303</td>
<td>Exploring the Engineering Profession</td>
</tr>
<tr>
<td>EGR 2213</td>
<td>Statics and Dynamics</td>
</tr>
<tr>
<td>EGR 2323</td>
<td>Applied Engineering Analysis I</td>
</tr>
</tbody>
</table>
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. 57 semester credit hours of required courses:

CE 1403 Engineering Communication
CE 2103 Civil Engineering Measurements
CE 2633 Environmental Engineering
CE 3103 Mechanics of Solids
CE 3113 Structural Analysis
CE 3213 Reinforced Concrete 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 4603 Water Resources Engineering
CE 4803 Engineering Practice
CE 4813 Civil Engineering Design
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 3233 Steel Design
CE 3723 Applied Hydrology
CE 4233 Transportation Systems
CE 4413 Foundation Analysis and Design
CE 4543 Construction Planning
CE 4653 Design of Pollution Control Systems

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. Prerequisite: 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.)

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, wastewaster 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. Prerequisite: EGR 2213 and 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.)

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 2103, 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.

3413 Geotechnical Engineering and Applications
(2-3) 3 hours credit. Prerequisite: CE 3103 and STA 2303. 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; strength and compressibility of geotechnical materials; introduction to shallow and deep foundations; and basics of slope stability. (Formerly CE 4213. Credit cannot be earned for both CE 3413 and CE 4213.)

3603 Fluid Mechanics
(2-3) 3 hours credit. Prerequisite: EGR 2213 and STA 2303.
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: Junior standing in civil engineering.  
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 CE 4123.  
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: Senior standing in civil engineering.  
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; footings and beams on elastic foundations; earth pressures and mechanically stabilized earth; design of retaining walls, piers and drilled piers; and soil improvement and ground modification.

4543  Construction Planning  
(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 3603.  
Analysis and design of surface and subsurface water resource systems; dam and reservoir design for recharge, flood control, and water supply; and 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, 4603, and senior standing in Civil Engineering.
Analysis and design of surface and subsurface water resource systems; dam and reservoir design for recharge, flood control, and water supply, and demand forecasting, optimization of multi-objective systems, and allocations planning and management.

**4803 Engineering Practice**
(3-0) 3 hours credit. Prerequisites: Senior standing in Civil Engineering.
Civil Engineering design process, project proposal, project specifications, and project management. Develop design team, define a multi-disciplinary 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 3213, 3413, 3633, 3713, 4603, and 4803.
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) of the instructor, the student’s advisor, the Division Director 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.

---

**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 digital systems processing (DSP) system engineering, and control systems engineering. At least three technical elective courses must be selected from a single technical area.

The educational objectives of the Electrical Engineering program are:

1. Integrate computer-assisted analysis and design methods throughout the curriculum
2. Provide sound knowledge in fundamental areas of electrical engineering
3. Develop effective written and oral technical communication skills
4. Provide opportunities for “hands-on” laboratory and design experiences throughout the curriculum
5. Provide state of the art design and analysis software tools to complement theoretical course content
6. Provide opportunities for practical experiences through co-op programs
7. Prepare UTSA students for graduate research and education
8. Provide opportunities for advanced studies in electrical engineering graduate programs
9. Become a national center of excellence for the education of minorities at the undergraduate and graduate levels.

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 systems 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 relate to objectives 2, 3, and 4. 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, 5, and 7.

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 credit hours) may be selected either from the same area or from other two areas, including one course at the graduate-level and/or three credit hours from an engineering co-op program. The engineering co-operative program provides an opportunity to the students for obtaining 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. These senior-level electives relate to objectives 1, 6, 7, 8, and 9.

The electrical engineering program uses six sources for assessment of its program:

1. Faculty assessment;
2. Student assessment prior to graduation;
3. Oral exit interview of graduating seniors by the EE program chair;
4. Written exit interview of graduating seniors by the Division Director;
5. Assessment by companies/graduate schools that hire/accept EE graduates; and
6. Results of the Fundamentals of Engineering (FE) examination.
Engineering Design Experience

The engineering design experience is especially important in meeting objectives 4 and 5 and 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, 3413 Analysis and Design of Control Systems, 3423 Signals and Systems I, 3463 Microcomputer Systems I, 3563 Digital Systems Design I, and 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 I, which deals with design and simulation of sequential digital systems. During the fourth semester, students take EE 3313 Electronic Circuits I and EE 3113 Electronics 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric** (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
| **Domain I: Mathematics and Science** | **Mathematics** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
**Science** (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. |
| **Domain II: Society and Culture** | **United States History and Diversity** (6 semester credit hours)  
Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
**Political Studies** (6 semester credit hours)  
Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
**Social and Behavioral Sciences** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
**Economics** (3 semester credit hours)  
ECO 2023 Introductory Microeconomics |
General Engineering Requirements

All degree-seeking candidates in engineering must complete the following 29 semester credit hours, as well as the Core Curriculum requirements and major requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 1103</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>EGR 1303</td>
<td>Exploring the Engineering Profession</td>
</tr>
<tr>
<td>EGR 2213</td>
<td>Statics and Dynamics</td>
</tr>
<tr>
<td>EGR 2323</td>
<td>Applied Engineering Analysis I</td>
</tr>
<tr>
<td>MAT 1214</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MAT 1223</td>
<td>Calculus II</td>
</tr>
<tr>
<td>PHY 1904</td>
<td>Technical Physics I and Laboratory</td>
</tr>
<tr>
<td>PHY 1911</td>
<td>Technical Physics II and Laboratory</td>
</tr>
</tbody>
</table>

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. 52 semester credit hours of required courses:

1. 46 semester credit hours of electrical engineering:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGR 3323</td>
<td>Applied Engineering Analysis II</td>
</tr>
<tr>
<td>EE 2423</td>
<td>Network Theory</td>
</tr>
<tr>
<td>EE 2513</td>
<td>Logic Design</td>
</tr>
<tr>
<td>EE 3113</td>
<td>Electrical Engineering Laboratory I</td>
</tr>
<tr>
<td>EE 3213</td>
<td>Electromagnetic Engineering</td>
</tr>
<tr>
<td>EE 3313</td>
<td>Electronic Circuits I</td>
</tr>
<tr>
<td>EE 3413</td>
<td>Analysis and Design of Control Systems</td>
</tr>
<tr>
<td>EE 3423</td>
<td>Signals and Systems I</td>
</tr>
<tr>
<td>EE 3463</td>
<td>Microcomputer Systems I</td>
</tr>
<tr>
<td>EE 3513</td>
<td>Electromechanical Systems</td>
</tr>
<tr>
<td>EE 3523</td>
<td>Signals and Systems II</td>
</tr>
<tr>
<td>EE 3563</td>
<td>Digital Systems Design I</td>
</tr>
<tr>
<td>EE 4113</td>
<td>Electrical Engineering Laboratory II</td>
</tr>
<tr>
<td>EE 4313</td>
<td>Electronic Circuits II</td>
</tr>
<tr>
<td>EE 4811</td>
<td>Electrical Engineering Design I</td>
</tr>
<tr>
<td>EE 4813</td>
<td>Electrical Engineering Design II</td>
</tr>
</tbody>
</table>

Domain III: Literature and the Arts

<table>
<thead>
<tr>
<th>Literature (3 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>

Domain IV: Interdisciplinary Studies

<table>
<thead>
<tr>
<th>The Arts (3 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>
2. 6 semester credit hours of supporting courses:

   CS  2073  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**

   CS  3323  Topics in Programming Languages
   or
   CS  3733  Operating Systems

   EE  4243  Digital Systems Design II
   EE  4323  Advanced Electrical Engineering Laboratory
   EE  4513  LSI and VLSI Design
   EE  4553  VLSI Testing
   EE  4573  Engineering Workstations
   EE  4583  Microcomputer Systems II

**Communication and DSP System Engineering**

   EE  4323  Advanced Electrical Engineering Laboratory
   EE  4613  Communication Systems
   EE  4623  Digital Filtering
   EE  4643  Digital Signal Processing
   EE  4653  Digital Communication
   EE  4663  Digital Image Processing
   EE  4673  Data Communication and Networks
   EE  4683  Wireless Communications

**Control System Engineering**

   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  4333  Instrumentation Systems
   EE  4343  Active Filter Synthesis
   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. Prerequisites: PHY 1924 and 1931; corequisite: MAT 3253 or 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
(3-2) 3 hours credit. Prerequisites: completion of or concurrent enrollment in PHY 1924 and MAT 3253 or EE 2323,
or 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. Two hours of problem solving
recitation per week. (Formerly EE 2424. Credit cannot be earned for both EE 2423 and EE 2424.)

2513 Logic Design
(3-2) 3 hours credit. Prerequisite: Major in computer science, or completion of or concurrent enrollment in CS 2073.
Number systems, Boolean algebra, combinational and sequential circuit design; and minimization and
implementation. (Formerly EE 2514. Credit cannot be earned for both EE 2513 and EE 2514.) Two hours of problem
solving recitation per week.

3113 Electrical Engineering Laboratory I
(1-6) 3 hours credit. Prerequisites: EE 2423, 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.

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 or MAT 3253; EE 3423 for electrical engineering majors; 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 or EE 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. Prerequisites: 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 I  
(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, 3413, 3463, and 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  Digital Systems Design II  
(2-3) 3 hours credit. Prerequisites: EE 3463 and 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.

4333  Instrumentation Systems  
(2-3) 3 hours credit. Prerequisites: EE 3463 and completion of or concurrent enrollment in EE 4113. 
Principles of instrumentation system design, transducers, power supplies, and signal conditioning; noise analysis and 
reduction techniques; and standard protocol instrumentation buses.
4343  **Active Filter Synthesis**  
(2-3) 3 hours credit. Prerequisite: EE 4313.  
Analysis and design of active filter networks; sensitivity analysis and filter design techniques; and passive synthesis, switched capacitor filters, and other topics.

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, 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  **LSI and VLSI Design**  
(2-3) 3 hours credit. Prerequisites: EE 3213, 4313, and completion of or concurrent enrollment in EE 4243 or 4583 or consent of instructor.  
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 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.  
Fundamentals of communication systems engineering using analog and digital techniques; and signal analysis, signal-to-noise ratio, and circuit implementations.

4623  **Digital Filtering**  
(3-0) 3 hours credit. Prerequisites: EE 4643 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. Prerequisite: EE 3423 and STA 3533 or EE 3533. 
Matched filtering; bit error rate; inter-symbol interference; equalization; signal constellations; coherent versus non-coherent receivers; ASK, BPSK, QPSK, FSK, and QAM modulation; spread spectrum; TDMA versus CDMA; source coding and channel capacity; and error control coding.

4663  **Digital Image Processing**  
(3-0) 3 hours credit. Prerequisite: EE 4643. 
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. Prerequisites: EE 3423, STA 3533 or EE 3533. 
Cellular radio concepts: frequency reuse and handoff strategies. Large scale path loss models; fading and multipath: flat fading versus frequency selective fading; modulation schemes for mobile communication: narrowband versus spread spectrum; equalization; RAKE receiver; multiple access techniques: FDMA, TDMA, CDMA; and co-channel interference and channel capacity. Common wireless standards.

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. Prerequisite: Completion or concurrent enrollment in EE 3463 or EE 3413. 
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 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. Prerequisites: Permission in writing (form available) of the instructor, the student’s advisor, the
Division Director 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.

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 3513
Mechanism 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 and thermal and fluid laboratories. Students may receive
additional experimental 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 the
honors program may work on more individualized projects. Students also have an opportunity to participate in an approved co-
op program and receive up to three semester credit hours for their experience.

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 conversion, petroleum, manufacturing, and
research.
The educational objectives of the mechanical engineering program are:

1. to develop the understanding of and ability to apply the fundamentals of mathematics and physical sciences to practical engineering problems
2. to develop the capacity for lifelong learning needed by professional engineers
3. to develop the capacity for effective technical communication
4. to prepare students to be effective engineers in the rapidly changing 21st century
5. to prepare students to work in teams and understand the advantages of teamwork
6. to develop creative problem solving and innovative design skills for thermal and mechanical systems
7. to instill an appreciation for the role of the engineering profession and its ethical responsibilities in society

The mechanical engineering program has implemented a procedure to assess the following outcomes:

1. an ability to identify, formulate, and analyze the performance of thermal and mechanical systems using principles from chemistry, calculus-based physics, statistics, linear algebra, multivariate calculus, and differential equations
2. an ability to comprehend, interpret, and apply technical advances in science, mathematics, and engineering
3. an ability to use modern computer-based tools for engineering applications
4. an ability to communicate effectively through written, oral, and graphical presentations
5. an ability to design and conduct experiments to gauge or verify the performance of systems, as well as analyze and interpret experimental data
6. an ability to work effectively on a team project
7. an ability to creatively develop designs that achieve desired performance criteria within specified constraints and limitations
8. an understanding of ethical and societal responsibilities of professional 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rhetoric</strong> (6 semester credit hours)</td>
<td>All students must take the following six hours to meet this core requirement: ENG 1013 Freshman Composition, ENG 1023 Discourse across the Disciplines</td>
</tr>
</tbody>
</table>
| **Domain I: Mathematics and Science** | **Mathematics** (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
**Science** (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. |
# General Engineering Requirements

All degree-seeking candidates in engineering must complete the following 29 semester credit hours, as well as the Core Curriculum requirements and major requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 1103</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>EGR 1303</td>
<td>Exploring the Engineering Profession</td>
</tr>
<tr>
<td>EGR 2213</td>
<td>Statics and Dynamics</td>
</tr>
<tr>
<td>EGR 2323</td>
<td>Applied Engineering Analysis I</td>
</tr>
<tr>
<td>MAT 1214</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MAT 1223</td>
<td>Calculus II</td>
</tr>
<tr>
<td>PHY 1904, 1911</td>
<td>Technical Physics I and Laboratory</td>
</tr>
<tr>
<td>PHY 1924, 1931</td>
<td>Technical Physics II and Laboratory</td>
</tr>
</tbody>
</table>

# 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. 31 semester credit hours of required foundation and general mechanical engineering courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 2023</td>
<td>Introductory Microeconomics</td>
</tr>
<tr>
<td>EE 2213</td>
<td>Electric Circuits and Electronics</td>
</tr>
<tr>
<td>EGR 3323</td>
<td>Applied Engineering Analysis II</td>
</tr>
<tr>
<td>ME 1403</td>
<td>Engineering Graphics and Design</td>
</tr>
<tr>
<td>ME 3173</td>
<td>Numerical Methods in Mechanical Engineering</td>
</tr>
<tr>
<td>ME 3241</td>
<td>Materials Engineering Laboratory</td>
</tr>
<tr>
<td>ME 3243</td>
<td>Materials Engineering</td>
</tr>
</tbody>
</table>
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 3513  Mechanism Design
ME 3813  Solid Mechanics
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 3, 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 or ME 4953 Special Studies in Mechanical Engineering may be used as a technical elective.

Option I-Specialization in Energy (Thermal/Fluid Systems):

ME 3503  Alternative Energy Sources
ME 4183  Propulsion
ME 4213  Finite Element Analysis
ME 4323  Thermal Systems Design
ME 4343  Heating, Air Conditioning, and Refrigeration Design
ME 4353  Gas Dynamics
ME 4363  Intermediate Heat and Mass Transfer
ME 4613  Power Plant Systems Design
ME 4623  Internal Combustion Engines
ME 4663  Intermediate Fluid Mechanics

Option II-Specialization in Structures and Motions of Mechanical Systems:

ME 3263  Materials Processing
ME 3323  Dynamics of Mechanical Systems
ME 3823  Machine Element Design
ME 4113  Engineering Fracture Mechanics
ME 4213  Finite Element Analysis
ME 4243  Intermediate Materials Engineering
ME  4263  Nondestructive Evaluation  
ME  4413  Intermediate Mechanism Design  
ME  4433  Intermediate Machine Element Design  
ME  4503  Intermediate Dynamics  
ME  4513  Mechanical Vibrations and Dynamics of Machinery  
ME  4723  Reliability and Quality Control in Engineering Design  

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 2213 and 2323.  
Kinematics and kinetics of 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 2213.  
Fundamental aspects of the structure, properties, and 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 3243.  
Casting, joining, forming, and machining; methods of processing modern engineering materials; forming and joining techniques; 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 2213. 
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.

3303  **Probability Models and Engineering Data Analysis**  
(3-0) 3 hours credit. Prerequisites: PHY 1904 and MAT 1223. 
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. Prerequisite: STA 2303 and credit 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.

3313  **Measurements and Instrumentation**  
(2-3) 3 hours credit. Prerequisite: EGR 2213 and EE 2213; corequisite: EGR 2323. 
Fundamentals of measurement systems; standards and treatment of data; transducers and signal conditioning; strain, force, acceleration, pressure, temperature, pressure, and fluid flow.

3323  **Dynamics of Mechanical Systems**  
(3-0) 3 hours credit. Prerequisite: ME 3103. 
Mechanical system dynamics, linear systems, modeling techniques, analytical dynamics, and vibrations.

3503  **Alternative Energy Sources**  
(3-0) 3 hours credit. Prerequisite: ME 3293. 

3513  **Mechanism Design**  
(3-1) 3 hours credit. Prerequisites: ME 1403 and ME 3103. 
Introduction to mechanisms; displacement, velocity, and acceleration analysis of mechanisms; graphical and linear analytical methods for kinematic synthesis and gear trains, and computer-aided design projects.

3663  **Fluid Mechanics**  
(3-0) 3 hours credit. Prerequisites: EGR 3323, ME 3103; and credit for or enrollment in ME 3293. 
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  **Solid Mechanics**  
(3-1) 3 hours credit. Prerequisites: EGR 2213 and 2323. 
Internal forces and deformations in solids; stress, strain and their relations, torsion, stresses and deflections in beams, elastic behavior of columns, and energy methods. One hour of problem solving recitation.

3823  **Machine Element Design**  
(3-1) 3 hours credit. Prerequisites: ME 1403 and 3813. 
Introduction to design of machine elements, static and fatigue theories of failures, welded and bolted connections, design of spur and helical gears, and computer-aided design projects. (Formerly ME 4423. Credit cannot be earned for both ME 3823 and ME 4423).
4113  **Engineering Fracture Mechanics**  
(3-0) 3 hours credit. Prerequisites: ME 3241, 3243, and 3813.  
Introduction to the theory of fracture mechanics through the Griffith energy balance, Irwin’s stress intensity and strain energy release rate, and Rice’s conservation integral. Fracture mechanics will be applied to several modern engineering problems. (Formerly EGR 4113. Credit cannot be earned for both ME 4113 and EGR 4113.)

4183  **Propulsion**  
(3-0) 3 hours credit. Prerequisites: ME 3293 and 3663.  
Introduction to analysis, design, control of air-breathing engines, including performance and cycle analysis, heat transfer, material considerations, and shocks; design and analysis of inlets, compressors, combustors, turbines, and nozzles. Applications to aeronautical and ground transportation. (Formerly EGR 4183. Credit cannot be earned for both ME 4183 and EGR 4183.)

4213  **Finite Element Analysis**  
(3-0) 3 hours credit. Prerequisite: EGR 3323.  
Introduction to the theory of finite element analysis. The method will be applied to the solution of boundary-valued and time-dependent problems in solid/fluid mechanics and heat transfer. (Formerly EGR 4213. Credit cannot be earned for both ME 4213 and EGR 4213.)

4243  **Intermediate Materials Engineering**  
(3-0) 3 hours credit. Prerequisites: ME 3241, 3243, and 3813.  
Selected topics in macroscopic and microscopic aspects of the mechanical behavior of metals, ceramics, and polymers; introduction to dislocation theory, temperature dependent deformations, engineering failures, and fracture mechanics.

4263  **Nondestructive Evaluation**  
(2-3) 3 hours credit. Prerequisites: EE 2213, ME 3241, and ME 3243.  
Defect detection. Materials and defect characterization using nondestructive evaluation methods such as ultrasonic, eddy current, magnetic and electromagnetic methods, radiography, and thermography.

4293  **Thermodynamics II**  
(3-0) 3 hours credit. Prerequisites: EGR 3323 and ME 3293.  
Energy and availability analysis, reactive and non-reactive 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: EGR 3323, ME 3293, ME 3173, and credit or enrollment in ME 3663.  
Generalized potential distribution and gradients; transient and steady mass and heat transfer including conduction, forced and free convection, and radiation.

4323  **Thermal Systems Design**  
(2-3) 3 hours credit. Prerequisites: ME 3663 and credit 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 4293 and credit 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.

4353  **Gas Dynamics**  
(3-0) 3 hours credit. Prerequisites: ME 3663 and 3713.  
Application of mass, energy, and force balance to compressible fluids; treatment of one-dimensional steady and transient flows, isentropic flow, adiabatic flow, and flow with friction. Application to duct flows and to jet and rocket propulsion engines.
4363 Intermediate Heat and Mass Transfer  
(3-0) 3 hours credit. Prerequisite: ME 4313.  
Multidimensional heat conduction, numerical solutions, radiative transfer, natural convection, boiling, condensation, mass diffusion, heat exchangers, and thermal storage systems.

4413 Intermediate Mechanism Design  
(3-1) 3 hours credit. Prerequisite: ME 3513.  
Linear and nonlinear analytical methods for kinematic synthesis, static and dynamic force analyses of mechanisms, graphical and analytical design of cam-follower systems, design case studies, and computer-aided design projects.

4433 Intermediate Machine Element Design  
(3-1) 3 hours credit. Prerequisite: ME 3823.  
Design of bevel and worm gears, journal and rolling bearings; design of couplings, clutches, brakes, and flywheels; mechanical springs; design of shafts, axles and computer-aided design projects.

4503 Intermediate Dynamics  
(3-0) 3 hours credit. Prerequisites: EGR 3323 and ME 3103.  
Three-dimensional rigid-body kinetics; vector algebraic and Lagrange methods; integration of equations of motion; and computer-assisted methods.

4513 Mechanical Vibrations and Dynamics of Machinery  
(3-0) 3 hours credit. Prerequisites: EGR 3323 and 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.

4523 Dynamic Systems and Control  
(3-0) 3 hours credit. Prerequisites: EGR 3323, ME 3103, and ME 3313.  
Introduction to modeling and control of dynamic physical systems; analysis and design of control systems for mechanical, electrical, 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. Prerequisites: ME 1403 and 3813.  
Finite element method fundamentals, advanced geometric modeling of mechanical components and systems, finite element modeling of mechanical 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 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. Prerequisite: ME 4293.  
Application of thermodynamics cycles in design, analysis, and modeling of internal combustion engines including spark and compression–ignition cycles; and thermochemistry, fuels, combustion, and emission pollution.

4663 Intermediate Fluid Mechanics  
(3-1) 3 hours credit. Prerequisites: ME 3663 and 3173.  
Review of fundamental laws in integral form; differential continuity, momentum, and energy equations; Navier-Stokes 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, 3813, STA 2303, and credit 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, 3663, STA 2303, and credit or enrollment in ME 4313. Fundamentals of measurement systems; transducers and signal conditioning; strain, force, acceleration, controls and vibration; rotating machinery, and design of experiments.

4811 Mechanical Engineering Design Project Planning
(0-3) 1 hour credit. Prerequisites: ECO 2023 and credit or enrollment in ME 4313 and ME 4603. Development, presentation, and approval of design project proposals, conceptual design, computer-aided synthesis, analysis, and modeling of an open-ended problem. Industrial cooperation is encouraged.

4813 Mechanical Engineering Design Project
(2-3) 3 hours credit. Prerequisite: ME 4811. Development of a working design of an instructor-approved 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) of the instructor, the student’s advisor, the Division Director 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.
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.

Army ROTC: UTSA students may pursue courses in military science designed to develop the knowledge and skills required for a commission as an officer in the U.S. Army. The Army Reserve Officers’ Training Corps (ROTC) is open to all qualified students on a voluntary basis at both UTSA and The University of Texas Health Science Center. All courses for those enrolled in the program are held on the UTSA campus.

Air Force Reserve Officer Training Corps Program

To obtain a commission as an officer in the U.S. 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:

- CRJ 4733 Intelligence Programs and National Security
- GRG 1023 World Regional Geography
- GRG 3313 Cartography and Geographic Information Systems
- GRG 3643 Political Geography
- HIS 3823 History of American Foreign Policy
- POL 1083 The United States in the World
- POL 2603 International Politics
- POL 3293 Political Movements
- POL 3343 Communism and Post-Communism
- POL 3403 European Politics
- POL 3423 Politics in Russia and the Post-Soviet States
- 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
- PSY 2533 Social Psychology
- SSC 3103 Complex Organization
- SSC 4063 Civil-Military Relations
- SSC 3303 Economy and Polity
- SSC 4353 Leadership and Elites

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.
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.

Army Reserve Officer Training Corps Program

This program is now housed in the College of Business. For more information on this program students should see an advisor in the College of Business.

To obtain a commission as an officer in the U.S. 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 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 to the degree requirements for each major. 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 or challenging extracurricular activities are associated with these courses. Students can qualify for entry into the Advanced Course by completing Camp Challenge, the summer encampment.

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 Advanced 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 three 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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSC 1011</td>
<td>Introduction to ROTC</td>
</tr>
<tr>
<td>MSC 1021</td>
<td>Introduction to Leadership</td>
</tr>
<tr>
<td>MSC 2012</td>
<td>Self/Team Development</td>
</tr>
<tr>
<td>MSC 2022</td>
<td>Individual/Team Military Tactics</td>
</tr>
</tbody>
</table>
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

COURSE DESCRIPTIONS
MILITARY SCIENCE
(MSC)

1011 Introduction to 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 lab 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 lab 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 lab 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 preexecution 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 lab plus required participation in two one-hour sessions for physical fitness.

3013 Leading Small Organizations I
(3-2) 3 hours credit. Prerequisites: MSC 1011, 1021, 2012, and 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 lab 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 lab 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 lab 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 lab 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.
# TABLE OF CONTENTS

## CHAPTER FIVE
### COLLEGE OF LIBERAL AND FINE ARTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>School of Architecture</td>
<td>175</td>
</tr>
<tr>
<td>B.S. in Architecture</td>
<td>175</td>
</tr>
<tr>
<td>B.S. In Interior Design</td>
<td>178</td>
</tr>
<tr>
<td>Division of Behavioral and Cultural Sciences</td>
<td>186</td>
</tr>
<tr>
<td>B.A. in American Studies</td>
<td>186</td>
</tr>
<tr>
<td>Minor in American Studies</td>
<td>188</td>
</tr>
<tr>
<td>B.A. in Anthropology</td>
<td>190</td>
</tr>
<tr>
<td>Minor in Anthropology</td>
<td>192</td>
</tr>
<tr>
<td>B.A. in History</td>
<td>197</td>
</tr>
<tr>
<td>Minor in History</td>
<td>199</td>
</tr>
<tr>
<td>B.A. in Psychology</td>
<td>208</td>
</tr>
<tr>
<td>Minor in Psychology</td>
<td>210</td>
</tr>
<tr>
<td>Minor in American Indian Studies</td>
<td>217</td>
</tr>
<tr>
<td>Minor in Women and Gender Studies</td>
<td>217</td>
</tr>
<tr>
<td>Division of English, Classics, Philosophy, and Communication</td>
<td>219</td>
</tr>
<tr>
<td>B.A. in Communication</td>
<td>219</td>
</tr>
<tr>
<td>Speech Communication Concentration</td>
<td>219</td>
</tr>
<tr>
<td>Technical Communication Concentration</td>
<td>221</td>
</tr>
<tr>
<td>Electronic Media Concentration</td>
<td>223</td>
</tr>
<tr>
<td>Public Relations Concentration</td>
<td>225</td>
</tr>
<tr>
<td>Minor in Communication</td>
<td>227</td>
</tr>
<tr>
<td>B.A. in English</td>
<td>231</td>
</tr>
<tr>
<td>Minor in English Literature</td>
<td>233</td>
</tr>
<tr>
<td>B.A. in Humanities</td>
<td>239</td>
</tr>
<tr>
<td>Minor in Humanities</td>
<td>241</td>
</tr>
<tr>
<td>B.A. in Philosophy</td>
<td>243</td>
</tr>
<tr>
<td>Minor in Philosophy</td>
<td>245</td>
</tr>
<tr>
<td>B.A. in Classical Studies</td>
<td>248</td>
</tr>
<tr>
<td>Minor in Classical Studies</td>
<td>249</td>
</tr>
<tr>
<td>Division of Foreign Languages</td>
<td>253</td>
</tr>
<tr>
<td>B.A. in French</td>
<td>253</td>
</tr>
<tr>
<td>Minor in French</td>
<td>255</td>
</tr>
<tr>
<td>B.A. in German</td>
<td>256</td>
</tr>
<tr>
<td>Minor in German</td>
<td>258</td>
</tr>
<tr>
<td>B.A. in Spanish</td>
<td>260</td>
</tr>
<tr>
<td>Minor in Spanish</td>
<td>262</td>
</tr>
<tr>
<td>Minor in Comparative Literature</td>
<td>268</td>
</tr>
<tr>
<td>Minor in Foreign Languages</td>
<td>269</td>
</tr>
<tr>
<td>Minor in Linguistics</td>
<td>271</td>
</tr>
<tr>
<td>Minor in Russian</td>
<td>272</td>
</tr>
<tr>
<td>Division of Music</td>
<td>276</td>
</tr>
<tr>
<td>Bachelor of Music</td>
<td>276</td>
</tr>
<tr>
<td>Program</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Music Performance Emphasis</td>
<td>278</td>
</tr>
<tr>
<td>Composition Emphasis</td>
<td>280</td>
</tr>
<tr>
<td>Music Marketing Emphasis</td>
<td>281</td>
</tr>
<tr>
<td>Music Studies Emphasis</td>
<td>282</td>
</tr>
<tr>
<td>Minor in Music</td>
<td>284</td>
</tr>
<tr>
<td>Division of Social and Policy Sciences</td>
<td></td>
</tr>
<tr>
<td>B.A. in Geography</td>
<td>295</td>
</tr>
<tr>
<td>Minor in Geography</td>
<td>297</td>
</tr>
<tr>
<td>B.A. in Political Science</td>
<td>301</td>
</tr>
<tr>
<td>Minor in Political Science</td>
<td>303</td>
</tr>
<tr>
<td>B.A. in Sociology</td>
<td>313</td>
</tr>
<tr>
<td>Minor in Sociology</td>
<td>315</td>
</tr>
<tr>
<td>Minor in International Studies</td>
<td>322</td>
</tr>
<tr>
<td>Division of Visual Arts</td>
<td></td>
</tr>
<tr>
<td>B.F.A. in Art</td>
<td>325</td>
</tr>
<tr>
<td>Minor in Art History and Criticism</td>
<td>330</td>
</tr>
</tbody>
</table>
This page left blank
CHAPTER 5
COLLEGE OF LIBERAL AND FINE ARTS

SCHOOL OF ARCHITECTURE

Bachelor of Science Degree in Architecture

The Bachelor of Science 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.

The division reserves the right to retain, exhibit, and reproduce work submitted by students. Work submitted for grading is the property of the division and remains such until it is returned to the student.

All transfer students must submit a bound portfolio (maximum size 11 inches x 17 inches) to the School of Architecture as soon as admittance to the University is approved. The portfolio must clearly demonstrate creative and communicative skills in graphic and written form. A complete transcript of all professional courses accompanied by the catalog descriptions from the originating institution must be included. Do not send slides or original work. A postage paid, self-addressed return envelope must be included for return of work to the candidate. The portfolio will be reviewed by a faculty committee to determine the student’s placement in the studio sequence.

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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric** (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
<table>
<thead>
<tr>
<th>Domain I: Mathematics and Science</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mathematics</strong> (3 semester credit hours)</td>
<td></td>
</tr>
<tr>
<td>MAT 1093 Precalculus</td>
<td></td>
</tr>
<tr>
<td><strong>Science</strong> (6 semester credit hours)</td>
<td></td>
</tr>
<tr>
<td>PHY 1603 General Physics I</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>PHY 1904 Technical Physics I</td>
<td></td>
</tr>
<tr>
<td>And one other science course; the following are recommended:</td>
<td></td>
</tr>
<tr>
<td>ANT 2033 Introduction to Physical Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 2043 Introduction to Archaeology</td>
<td></td>
</tr>
<tr>
<td>AST 1013 Introduction to Astronomy</td>
<td></td>
</tr>
<tr>
<td>CHE 1073 Basic Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHE 1103 General Chemistry</td>
<td></td>
</tr>
<tr>
<td>ES 2013 Introduction to Environmental Systems</td>
<td></td>
</tr>
<tr>
<td>GEO 1013 The Third Planet</td>
<td></td>
</tr>
<tr>
<td>GEO 1103 Introduction to Earth Systems</td>
<td></td>
</tr>
<tr>
<td>GRG 2613 Physical Geography</td>
<td></td>
</tr>
<tr>
<td>PHY 1623 General Physics II</td>
<td></td>
</tr>
<tr>
<td>PHY 2004 Understanding Physics</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain II: Society and Culture</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>United States History and Diversity</strong> (6 semester credit hours)</td>
<td></td>
</tr>
<tr>
<td>Any six hours listed under this section in the list of core courses will satisfy this core requirement.</td>
<td></td>
</tr>
<tr>
<td><strong>Political Studies</strong> (6 semester credit hours)</td>
<td></td>
</tr>
<tr>
<td>Any six hours listed under this section in the list of core courses will satisfy this core requirement.</td>
<td></td>
</tr>
<tr>
<td><strong>Social and Behavioral Sciences</strong> (3 semester credit hours)</td>
<td></td>
</tr>
<tr>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
<td></td>
</tr>
<tr>
<td><strong>Economics</strong> (3 semester credit hours)</td>
<td></td>
</tr>
<tr>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain III: Literature and the Arts</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Literature</strong> (3 semester credit hours)</td>
<td></td>
</tr>
<tr>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
<td></td>
</tr>
<tr>
<td><strong>The Arts</strong> (3 semester credit hours)</td>
<td></td>
</tr>
<tr>
<td>ARC 2413 History of Architecture I</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain IV: Interdisciplinary Studies</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(3 semester credit hours)</td>
<td></td>
</tr>
<tr>
<td>ARC 1413 Architecture and Culture</td>
<td></td>
</tr>
</tbody>
</table>
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 I
ARC 1413 Architecture and Culture
ARC 1423 Architecture and Thought
ARC 2116 Design III
ARC 2126 Design IV
ARC 2213 Construction Materials and Concepts I
ARC 2223 Structures I
ARC 2413 History of Architecture I
ARC 2423 History of Architecture II
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 Senior Studio
ARC 4513 Professional Practice and Ethics

C. 15 semester credit hours of electives

According to the National Architectural Accrediting Board:

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board, (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes two types of degrees: the Bachelor of Architecture and the Master of Architecture. A program may be granted a five-year, three-year, or two-year term of accreditation, depending on its degree of conformance with established educational standards.

Masters degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree, which, when earned sequentially, comprise an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.
The NAAB grants candidacy status to new programs that have developed viable plans for achieving initial accreditation. Candidacy status indicates that a program should be accredited within six years of achieving candidacy, if its plan is properly implemented. (*NAAB Guidelines*, 1998, Appendix A2)

The graduate program has been granted candidacy status for the Master of Architecture degree.

**Bachelor of Science Degree in Interior Design**

The Bachelor of Science in Interior Design is a four-year degree. The minimum number of semester credit hours required for the degree, including Core Curriculum requirements, is 132.

The school reserves the right to retain, exhibit, and reproduce work submitted by students. Work submitted for grading is the property of the division and remains such until it is returned to the student.

All transfer students must submit a bound portfolio (maximum size 11 inches x 17 inches) to the School of Architecture as soon as admittance to the University is approved. The portfolio must clearly demonstrate creative and communicative skills in graphic and written form. A complete transcript of all professional courses accompanied by the catalog descriptions from the originating institution must be included. Do not send slides or original work. A postage paid, self-addressed return envelope must be included for return of work to the candidate. The portfolio will be reviewed by a faculty committee to determine the student’s placement in the studio sequence.

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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric** (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
| **Domain I: Mathematics and Science** | **Mathematics** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
**Science** (6 semester credit hours)  
Three hours from Level One and three hours from Level Two will satisfy this core requirement. |
Degree Requirements

A. 90 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. 36 semester credit hours of required lower-division architectural courses:

   ARC 1213 Design I
   ARC 1223 Design II
   ARC 1313 Visual Communication I
   ARC 1413 Architecture and Culture
   ARC 2116 Design III
   ARC 2126 Design IV
   ARC 2213 Construction Materials and Concepts I
   ARC 2413 History of Architecture I
   ARC 2423 History of Architecture II
   ARC 2513 Introduction to Digital Design Media

2. 54 semester credit hours of required upper-division interior design courses:

   ARC 3143 Interior Materials I
   ARC 3153 Interior Materials II
   ARC 3213 History of Interiors and Furniture I
   ARC 3223 History of Interiors and Furniture II
   ARC 3236 Interior Design Studio I
   ARC 3246 Interior Design Studio II
   ARC 3343 Environmental Systems I
   ARC 3353 Environmental Systems II
   ARC 3613 History of Modern Architecture
ARC 4203  Interior Design Details
ARC 4266  Interior Design Systems Studio
ARC 4276  Interior Design Senior Studio
ARC 4313  Construction Graphics
ARC 4513  Professional Practice and Ethics

B. 6 semester credit hours of electives

**COURSE DESCRIPTIONS**

**ARCHITECTURE (ARC)**

1213  **Design I**
(1-6) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in ARC 1313.
Introduction to design theories and principles with a strong focus on visual literacy. Explorations into the elements and principles of design, including line, form, color, and texture, and rhythm, balance, proportion, and scale. Offers an introduction into the pragmatics of design which involves vertical elements, horizontal elements, stairs and ramps, and enclosure. The use of drawings, in particular plans and elevations, and models as tools for thinking and communicating are stressed. Includes a weekly one-hour studio lecture on design theory and/or pragmatics. (Formerly ARC 1233. Credit cannot be earned for both ARC 1213 and ARC 1233.)

1223  **Design II**
(1-6) 3 hours credit. Prerequisite: ARC 1213, 1313.
Introduction to spatial perception, human dimensions and the behavioral determinants of design with a strong emphasis on the concepts of space volume, color and light. Reinforcement of the elements and principles of design approached from the inside; explorations into space making and planning, spatial sequence, ordering, and relationships. The development of drawings, in particular sections, interior perspectives and axonometrics, and models is continued. Includes a weekly one-hour studio lecture on design theory and/or pragmatics.

1313  **Visual Communication I**
(1-6) 3 hours credit.
Introduction to methods and techniques used by architects and interior designers to give graphic expression to spatial ideas. Introduction to freehand drawing, including representational and diagrammatic sketching; principles of orthographic projection in plan, section, and elevation; axonometrics; and perspective. Completion of or concurrent enrollment in this course is required in order to take ARC 1213. [TCCN: ARCH 1307.]

1323  **Visual Communication II**
(1-6) 3 hours credit. Prerequisites: ARC 1213 and 1313.
A continuation of ARC 1313. Deals with more complex problems in orthographic projection, axonometrics, and constructed perspectives. Includes measured drawings of buildings and introduction of site plan graphics, shadow casting, and presentation media [TCCN: ARCH 1308.]

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. Prerequisites: ARC or 1223 or 1233.  
Introduction to the process of architectural and interior design with particular emphasis given to the analysis and complexities of site and context. Concurrently introduced are concept, elementary programming, circulation, tectonics, and day lighting with a reinforcement of spatial ordering and sequencing. Continued development of drawings, in particular analytical, descriptive, and diagrammatic drawings, as well as take-apart sketch and final models. Particular emphasis on a team approach to analysis and design. Includes a weekly one-hour studio lecture on design theory and/or pragmatics, and mandatory attendance at the school’s guest lecture series. (Formerly ARC 2113. Credit cannot be earned for both ARC 2116 and ARC 2113.)

2126  Design IV  
(2-12) 6 hours credit. Prerequisite: ARC 2116, and concurrent enrollment in ARC 2513 and 2223 or 3143.  
The continuing application of architectural and interior design with emphasis given to the simultaneous aspects of design synthesis, giving particular attention to increasingly complex programming located on increasingly diverse sites. Concurrently introduced are strategies for developing the master plan and issues of topographic manipulation with an integration of concept, organization, structure and enclosure. Continued development of drawing conventions, in particular the use of computer-aided drawings, as well as conceptual, structural, sketch and finished models. Includes a weekly one-hour study lecture on design theory and/or pragmatics, and mandatory attendance at the school’s guest lecture series. (Formerly ARC 2123. Credit cannot be earned for both ARC 2126 and ARC 2123.)

2213  Construction Materials and Concepts I  
(3-0) 3 hours credit. Prerequisites: ARC 1223 or 1233 or enrollment as a major in construction management.  
Analysis of materials, components, and assemblies. Concepts and principles of their selection and application to problems of structure, enclosure, and interior systems. Historical role of materials in architecture and interior design. Concurrent enrollment in ARC 2116 is recommended for majors. Completion of or concurrent enrollment in this course is required in order to take ARC 2223.

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, including statics and strengths of materials. Special emphasis on the graphical design of structural systems and their articulation in the creation of built form and space.

2233  Construction Materials and Concepts II  
(3-0) 3 hours credit. Prerequisites: ARC 2213.  
Continuation of ARC 2213. Emphasis is on sustainable material selection, methods, techniques and sequences for the construction of buildings.

2413  History of Architecture I  
(3-0) 3 hours credit.  
Survey of the architectural interpretation of environmental, social, aesthetic, technical, religious, and cultural forces that influenced design from prehistory to 1650. Concurrent enrollment in ARC 2116 is recommended for majors. [TCCN: ARCH 1301.]

2423  History of Architecture II  
(3-0) 3 hours credit.  
Survey of architectural interpretation of social, aesthetic, technical, political, and cultural forces that influenced design from 1650 into the twentieth century. Concurrent enrollment in ARC 2126 is recommended for 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 ARC 3143. 
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.

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.

3113  **Presentation Graphics**  
(1-6) 3 hours credit. Prerequisites: ARC 1223 and 1313. 
Principles and techniques of composition for presentation graphics. Exercises in architectural rendering in various 
media.

3143  **Interior Materials I**  
(3-0) 3 hours credit. Prerequisite: ARC 2126. 
Study of materials used in interior spaces and their specification, installation, maintenance, and performance.

3153  **Interior Materials II**  
(3-0) 3 hours credit. Prerequisite: ARC 3143. 
A continued study of materials used in interior spaces with an emphasis on textiles. Interior code issues are explored 
in relation to finishes and physical conditions.

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.

3213  **History of Interiors and Furniture I**  
(3-0) 3 hours credit. Prerequisites: ARC 2413 and 2423. 
Survey of the 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.

3216  **Architecture Studio I**  
(2-12) 6 hours credit. Prerequisites: ARC 2126, 2223, 2413, 2423, and completion of or concurrent enrollment in 
ARC 3233. 
Application of basic architectural principles emphasizing the design of particular building types using a variety of 
scales. Includes concern for urban design principles as shaped by individual buildings, site analysis, program 
development, schematic design, and design development. Integrates structural concepts and environmental concerns. 
Includes a weekly two-hour lecture on related topics.

3223  **History of Interiors and Furniture II**  
(3-0) 3 hours credit. Prerequisites: ARC 2413 and 2423. 
Survey of the social, aesthetic, technical, cultural, and professional forces that historically have influenced the use of 
interior space and furniture design in different cultures from 1600 through the present.

3226  **Architecture Studio II**  
(2-12) 6 hours credit. Prerequisite: ARC 3216. 
A continuation of ARC 3216 with emphasis on urban design context and its relationship to individual buildings. 
Includes a weekly two-hour lecture on related topics.
3233 Structures II
(3-0) 3 hours credit. Prerequisites: ARC 2126, and 2223.
Introduction to the principles and systems of structural materials with special emphasis on their articulation in built form and space to reveal their spatial, structural, and aesthetic qualities. Completion of this course is required in order to take ARC 4246.

3236 Interior Design Studio I
(2-12) 6 hours credit. Prerequisites: ARC 2126, 2213, 2413, and 2423.
The study of the process of researching, programming, and developing physical design solutions of various interior types, including the integration of finishes, fixtures, and furnishings within design. Includes a weekly two-hour lecture on related topics.

3243 Structures III
(3-0) 3 hours credit. Prerequisite: ARC 3233.
Advanced topics in structural materials and systems.

3246 Interior Design Studio II
(2-12) 6 hours credit. Prerequisites: ARC 3236.
A continuation of ARC 3236 with emphasis on building types and special populations. Includes a weekly two-hour lecture on related topics.

3343 Environmental Systems I
(3-0) 3 hours credit. Prerequisites: ARC 2126 and 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 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, sub-contracting 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.

4133 Interior Design Topics
(3-0) 3 hours credit. Prerequisite: ARC 2126 or consent of instructor.
A study of current trends and issues in interior design. May be repeated once for credit when topics vary.
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Hours</th>
<th>Credit</th>
<th>Prerequisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>4143</td>
<td>Architecture Topics</td>
<td>3-0</td>
<td>3</td>
<td>(3-0) 3 hours credit. Prerequisite: ARC 2126 or consent of instructor. A study of current trends and issues in architecture. May be repeated once for credit when topics vary.</td>
</tr>
<tr>
<td>4153</td>
<td>Topics in International Architecture</td>
<td>3-0</td>
<td>3</td>
<td>(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.</td>
</tr>
<tr>
<td>4203</td>
<td>Interior Design Details</td>
<td>3-0</td>
<td>3</td>
<td>(3-0) 3 hours credit. Prerequisites: ARC 3213 and 3153. A lecture studio course focusing on the connections and integration of various materials used in interior construction, millwork, and casework.</td>
</tr>
<tr>
<td>4223</td>
<td>Topics in Design Computing</td>
<td>2-2</td>
<td>3</td>
<td>(2-2) 3 hours credit. Prerequisites: ARC 2513 or equivalent experience in the use of CAAD software. Topics course in advanced digital media and design management applications for design practices.</td>
</tr>
<tr>
<td>4233</td>
<td>Computer Projects in Design</td>
<td>2-2</td>
<td>3</td>
<td>(2-2) 3 hours credit. Prerequisite: ARC 2513 or equivalent experience in the use of CAAD software. The course will explore selected advanced issues of 3 dimensional digital design, animation, photo-realistic visualization, computer-aided manufacturing and web-based media and their role in the design process.</td>
</tr>
<tr>
<td>4246</td>
<td>Architecture Systems Studio</td>
<td>2-12</td>
<td>6</td>
<td>(2-12) 6 hours credit. Prerequisites: ARC 3226, 3233, and 3353. Integration of building systems in architectural design development. Focuses on civil, mechanical, and structural considerations as design criteria, including a concern for energy efficiency, code and zoning regulations, and use of natural light. Includes a weekly two-hour lecture on related topics.</td>
</tr>
<tr>
<td>4256</td>
<td>Architecture Senior Studio</td>
<td>2-12</td>
<td>6</td>
<td>(2-12) 6 hours credit. Prerequisite: ARC 4246. Exploration and application of advanced design theory relative to architecture and urban design. Covers design philosophy, programming, transformation processes, and design development. Includes a weekly two-hour lecture on related topics.</td>
</tr>
<tr>
<td>4266</td>
<td>Interior Design Systems Studio</td>
<td>2-12</td>
<td>6</td>
<td>(2-12) 6 hours credit. Prerequisites: ARC 3153, 3246, 3353, and 4203. Integration of building systems in the design development of spaces with emphasis on materials, technical factors, and codes. Includes a weekly two-hour lecture on related topics.</td>
</tr>
<tr>
<td>4276</td>
<td>Interior Design Senior Studio</td>
<td>2-12</td>
<td>6</td>
<td>(2-12) 6 hours credit. Prerequisite: ARC 4266. Exploration and application of theoretical and cultural contexts in planning, design, and detail of interior space. Includes a weekly two-hour lecture on related topics.</td>
</tr>
<tr>
<td>4313</td>
<td>Construction Graphics</td>
<td>1-4</td>
<td>3</td>
<td>(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.</td>
</tr>
</tbody>
</table>
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, 2413, and 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 Division Director, 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.
DIVISION OF BEHAVIORAL AND CULTURAL SCIENCES

The Division of Behavioral and Cultural Sciences offers Bachelor of Arts degrees in American Studies (offered jointly with the Division of English, Classics, Philosophy, and Communication), Anthropology, History, and Psychology. American Studies is an interdisciplinary examination of the relationships among the diverse elements of American culture. Anthropology is the study of human cultural behavior. History is the study of the past of human society. Psychology is the study of animal and human behavior and of cognitive processes and thought. Each major combines a specialization in one of these sciences with support work in a related area. The support work area involves a specific number of semester credit hours outside the major discipline which forms a cohesive whole and is approved by the student’s advisor. The division also offers Minors in American Indian Studies, American Studies, Anthropology, History, Psychology, and Women and Gender Studies.

INTERNERSHIP STUDY

Internship entails supervised experience within selected organizations in the San Antonio area. Placement is arranged with the internship coordinator of the Division of Behavioral and Cultural Sciences. Supervision and grading of the internship experience are normally done by division faculty members. The various degree plans within the division place different restrictions on whether an internship must be taken on a credit/no-credit basis and on whether an internship may be counted toward major requirements. Up to 6 semester credit hours may be counted toward a bachelor’s degree. Students from majors other than the social sciences 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.

DIVISION HONORS

The Division of Behavioral and Cultural Sciences awards Division 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 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 divisional faculty member.

Students interested in this program should contact their faculty advisors for additional information.

Bachelor of Arts Degree in American Studies

American Studies is the interdisciplinary analysis of American cultures. While this program focuses on the cultures of the United States, study may extend through the Americas. The program links different modes of expression such as literature, music, art, film and visual expression, sports, architecture, technology, and religion to describe the cultural and intellectual life of American people. The methodology of American Studies encourages students to look to other disciplines such as anthropology, folklore, history, literature, economics, philosophy, political science, sociology, and women’s studies and to find the connections among them. The major allows students to develop a course of study adapted to their own interests and undergraduate needs, with the consultation of the American Studies advisor. Students will find the program excellent preparation for careers in many fields, such as communications, human resources, museum studies, non-profit organizations, public affairs, public relations, journalism, criminal justice, law, and the military. Many students continue in graduate work in American Studies, anthropology, communications, English, history, law, or religion.

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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric (6 semester credit hours)** | All students must take the following six hours to meet this core requirement:  
  ENG 1013 Freshman Composition  
  ENG 1023 Discourse across the Disciplines                                                                                     |
| **Domain I: Mathematics and Science** | Mathematics (3 semester credit hours)  
  Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
  Science (6 semester credit hours)  
  Three hours from Level One and three hours from Level Two will satisfy this core requirement. |
| **Domain II: Society and Culture** | United States History and Diversity (6 semester credit hours)  
  Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
  Political Studies (6 semester credit hours)  
  Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
  Social and Behavioral Sciences (3 semester credit hours)  
  AMS 2013 Basic Issues in American Culture  
  Economics (3 semester credit hours)  
  Any three hours listed under this section in the list of core courses will satisfy this core requirement. |
| **Domain III: Literature and the Arts** | Literature (3 semester credit hours)  
  Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
  The Arts (3 semester credit hours)  
  Any three hours listed under this section in the list of core courses will satisfy this core requirement. |
| **Domain IV: Interdisciplinary Studies** | (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 courses approved by the American studies advisor, 21 of which must be at the upper-division level:

1. 21 semester credit hours of required courses:
   a. AMS 2013 Basic Issues in American Culture
      AMS 3013 Early American Culture
      AMS 3023 Modern American Culture
   b. 6 semester credit hours selected from the following:
      AMS 3033 Topics in Regional American Cultures
      AMS 3043 Topics in Ethnic American Cultures
      AMS 3053 Topics in Women and American Culture
   c. 6 semester credit hours of AMS 4823 Topics in American Culture

2. 15 semester credit hours of support work with American content from at least two disciplines. American content may be interpreted as North, South, and Central America and the Caribbean. Support work may be chosen with the consent of the American Studies faculty advisor and must be approved by the American Studies faculty advisor.

   3 semester credit hours of AMS 4933 Internship in American Studies may be taken in partial fulfillment of this requirement.

B. 42 semester credit hours of electives

Minor in American Studies

All students pursuing a Minor in American Studies must complete 18 semester credit hours.

A. 12 semester credit hours of required courses:

   AMS 2013 Basic Issues in American Culture
   AMS 3013 Early American Culture
   AMS 3023 Modern American Culture
   AMS 4823 Topics in American Culture

B. 6 additional semester credit hours selected from the following:

   AMS 3033 Topics in Regional American Cultures
   AMS 3043 Topics in Ethnic American Cultures
   AMS 3053 Topics in Women and American Culture

To declare a Minor in American Studies, obtain advice, or seek approval of substitutions for course requirements, students should consult the undergraduate advisor in the Division of Behavioral and Cultural Sciences.
# COURSE DESCRIPTIONS

## AMERICAN STUDIES (AMS)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Credit Hours</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>1001</td>
<td>Freshman Topics in American Studies</td>
<td>1-1</td>
<td>1 hour</td>
<td>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 American Studies. Critical study of topics in American 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 three semester credit hours of freshman topics courses may apply to a bachelor’s degree, although this specific topic may be taken only once.</td>
</tr>
<tr>
<td>2013</td>
<td>Basic Issues in American Culture</td>
<td>3-0</td>
<td>3 hours</td>
<td>No prerequisite. Introduces students to the study of culture in the United States using the interdisciplinary American studies approach. American identity, which includes race and ethnicity, class, gender, sexual orientation, and religion, will be explored both historically and through popular culture.</td>
</tr>
<tr>
<td>3013</td>
<td>Early American Culture</td>
<td>3-0</td>
<td>3 hours</td>
<td>Examines the influences that shaped American culture to the twentieth-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.</td>
</tr>
<tr>
<td>3023</td>
<td>Modern American Culture</td>
<td>3-0</td>
<td>3 hours</td>
<td>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.</td>
</tr>
<tr>
<td>3033</td>
<td>Topics in Regional American Cultures</td>
<td>3-0</td>
<td>3 hours</td>
<td>A study of the culture(s) of a distinct region or regions within the United States. Emphasis is on works that analyze the region’s culture, literature by authors from that particular area, history, and folk traditions. Topics may include southern, western, suburban, or other identifiable regional cultures. May be repeated for credit when topics vary.</td>
</tr>
<tr>
<td>3043</td>
<td>Topics in Ethnic American Cultures</td>
<td>3-0</td>
<td>3 hours</td>
<td>A study of the cultural expressions of a particular racial or ethnic group or groups in the United States. Topics may include Native American, African American, Latino, Asian, Jewish, or other cultural groups. May be repeated for credit when topics vary.</td>
</tr>
<tr>
<td>3053</td>
<td>Topics in Women and American Culture</td>
<td>3-0</td>
<td>3 hours</td>
<td>A study of the cultural expressions of women in America. Topics may include literature, art, music, and philosophy by and about women; women’s roles in history; folklore relating to women; and similarities and differences in men’s and women’s culture. May be repeated for credit when topics vary.</td>
</tr>
<tr>
<td>4823</td>
<td>Topics in American Culture</td>
<td>3-0</td>
<td>3 hours</td>
<td>An in-depth study of a selected topic, such as American reform movements and political change, music in American culture, sports in American culture, childhood in America, modernism and postmodernism, literary expressions of American culture, and cultural currents in various periods of American history. May be repeated for credit when topics vary. Two or more topics courses may be taken concurrently.</td>
</tr>
</tbody>
</table>
4913 Independent Study
3 hours credit. Prerequisites: Permission in writing (form available) of the instructor, the student’s advisor, the 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.

4933,6 Internship in American Studies
3 or 6 hours credit. Prerequisite: Consent of program director.
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.

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 approval by the Honors Program coordinator.
Supervised research and preparation of an honors thesis. May be repeated once with advisor’s approval.

Bachelor of Arts Degree in Anthropology

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 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhetoric (6 semester credit hours)</td>
<td>All students must take the following six hours to meet this core requirement: ENG 1013 Freshman Composition ENG 1023 Discourse across the Disciplines</td>
</tr>
<tr>
<td>Domain I: Mathematics and Science</td>
<td>Mathematics (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. Science (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.</td>
</tr>
</tbody>
</table>
Degree Requirements

A. 33 semester credit hours in the major, 21 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. 12 additional upper-division semester credit hours of anthropology electives excluding ANT 4913 Independent Study, chosen in consultation with the student’s advisor. The following courses may be used to satisfy all or part of this requirement:
   - ENG 3343 Principles of English Linguistics
   - GRG 3213 Cultural Geography
   - HIS 3113 The American Indian
   - LNG 3813 Introduction to Linguistics
   - PHI 3033 Philosophy of Science
   - PSY 3053 Cross-Cultural Psychology
   - SSC 3103 Major Theories of the Social Sciences
B. 6 semester credit hours of social science courses, from courses outside the major, chosen with the consent of the faculty advisor.

C. 9 upper-division 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. The student should file a statement of intent and the list of courses to be taken in the support area with the undergraduate advisor in the Division of Behavioral and Cultural Sciences.

D. 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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 2033</td>
<td>Introduction to Physical Anthropology</td>
</tr>
<tr>
<td>ANT 2043</td>
<td>Introduction to Archaeology</td>
</tr>
<tr>
<td>ANT 2053</td>
<td>Introduction to Cultural Anthropology</td>
</tr>
<tr>
<td>ANT 2063</td>
<td>Language, Thought, and Culture</td>
</tr>
</tbody>
</table>

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 in the Division of Behavioral and Cultural Sciences.

**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. (Credit cannot be earned for both ANT 2023 and ANT 2053.) [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. (Credit cannot be earned for both ANT 2023 and ANT 2063.) [TCCN: ANTH 2351.]

3103 **Social Organization**  
(3-0) 3 hours credit. Prerequisite: ANT 1013 or 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 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 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 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 2053 recommended.  
Human adaptation to the environment and interaction with it, comparing simple and complex societies in various environmental contexts.

3263 **Archaeology of North America**  
(3-0) 3 hours credit. Prerequisite: ANT 1013 or 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 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 2023 or 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 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 pre-contact to the present day.

3333  **Physical Anthropology of Human Populations**  
(3-0) 3 hours credit. Prerequisite: ANT 1013 or 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 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 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 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  **Field Course in Archaeology**  
3 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. (Formerly ANT 3406. Credit cannot be earned for both ANT 3403 and ANT 3406.)

3413  **The Fieldwork Experience**  
(3-0) 3 hours credit. Prerequisite: ANT 2023, 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 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 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, 2033, or 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 2033 recommended.  
Examination of the biological and cultural sources of differences between men and women.

3653  **Mexico: Transforming Cultures**  
(3-0) 3 hours credit. Prerequisite: ANT 1013 or 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, 2043, or 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 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 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. Prerequisite: 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 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 **Anthropology of Business**  
(3-0) 3 hours credit. Prerequisite: ANT 1013 or 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 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.

4113 **Archaeology of Texas**  
(3-0) 3 hours credit. Prerequisite: ANT 2043, 3263, or 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 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.

4133 **Indians of Texas**  
(3-0) 3 hours credit. Prerequisite: ANT 1013 or 2053 recommended.  
Ethnological survey of the Indian populations of Texas from the early historic period to the present.

4243 **Ethnographic Film**  
(3-0) 3 hours credit. Prerequisite: ANT 1013 or 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 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
(2-4) 3 hours credit. Prerequisites: ANT 3403 or 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 or 3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student’s advisor, the 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.

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.

4993 Honors Thesis
3 hours credit. Prerequisites: Enrollment limited to candidates for Honors in Anthropology during their 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.

Bachelor of Arts Degree in History

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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhetoric (6 semester credit hours)</td>
<td>All students must take the following six hours to meet this core requirement: ENG 1013 Freshman Composition ENG 1023 Discourse across the Disciplines</td>
</tr>
</tbody>
</table>
Degree Requirements

A. 33 semester credit hours in the major, 21 of which must be at the upper-division level:

1. HIS 2003 Historical Methods (students should take this course as early as possible in their program and no later than their second semester after declaring the major)

2. 9 semester credit hours selected from the world civilization sequence (IDS 2203 and 2213) or from courses numbered HIS 2203 to 2573

3. 18 upper-division semester credit hours of history courses, including at least one U.S., one European, and one Latin American or Asian studies. Up to 6 semester credit hours from the following may be used to fulfill this requirement:
   
   AMS 3013 Early American Culture
   AMS 3023 Modern American Culture
   ANT 3273 Ancient Civilizations of Mesoamerica
ANT 3673 Ancient Civilizations of the Near East, Egypt, and Europe
ECO 3163 Evolution of Economic Thought
ECO 3183 Economic History of the United States
POL 3113 American Political Theory
POL 3133 Political Philosophy: Ancient and Medieval
POL 3143 Political Philosophy: Modern
POL 3323 Constitutional Law
PSY 4003 History of Psychology
SSC 3533 Inter-American Relations

4. 3 semester credit hours from HIS 4973 Seminar in History

B. 9 semester credit hours in approved support work from one of the following areas outside history: social and behavioral sciences, research methodology, or cultural studies. The student must consult with his or her faculty advisor to define a cohesive support area, and the faculty advisor’s approval is required.

C. 36 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
IDS 2203 World Civilization to the Fifteenth Century
IDS 2213 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

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 undergraduate advisor in the Division of Behavioral and Cultural Sciences.

COURSE DESCRIPTIONS
HISTORY
(HIS)

1001 Freshman Topics in History
(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 History. Critical study of topics in history. 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.
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: ENG 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.

2013   Daily Life in Early Modern Europe
(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
A study of some of the major historical and historiographical themes in the field of daily life in early modern Europe. Among the topics to be explored: sexuality, orthodox and nonorthodox; marriage and the family; the condition of women; attitudes toward children; deviants and outgroups. (Formerly HIS 4503. Credit cannot be earned for both HIS 2013 and HIS 4503.)

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 nineteenth and twentieth 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.]

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. [TCCN: HIST 2331.]
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. [TCCN: HIST 2312.]

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 seventeenth and eighteenth 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.

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. [TCCN: HIST 2312.]

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 seventeenth and eighteenth centuries, with special emphasis on family and community studies as measures of social change.

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.

3033  American Reform  
(3-0) 3 hours credit.  
An analysis and comparison of the origins and development of American reform from 1730 to the New Deal. Topics may include the Great Awakening, antislavery, temperance, abolitionism, populism, progressivism, and the New Deal.

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 United States history.
3083 **History of the American West**  
(3-0) 3 hours credit.  
An examination of the American westward movement in the nineteenth and twentieth 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 sixteenth- and seventeenth-century Spanish exploration, with emphasis on eighteenth-century colonization, and culminating in nineteenth-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.

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.

3163 **The Stranger in America**  
(3-0) 3 hours credit.  
An examination of immigrants and their reception in American society from the eighteenth century to the present, including the immigrants’ motives for moving to the United States, the problems they encountered in adjusting to their new surroundings, and the contributions they made to the nation’s development.

3173 **Modern America**  
(3-0) 3 hours credit.  
This course examines United States history since the onset of the Great Depression. Topics may include social change, popular culture, evolving political structures, and the role of the United States in the world.

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.

3233  Germany since 1806  
(3-0) 3 hours credit. 
The history of Germany since the Battle of Jena, emphasizing the crisis of the Prussian state, the effects of industrialization, the rise of German culture, Germany's unification and attainment of world power, and Germany's history since World War I.

3243  Europe in the Nineteenth Century  
(3-0) 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.

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 seventeenth century and the Baroque, the rise of science, and the culture of the Enlightenment.

3273  Medieval Europe  
(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 nineteenth 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 United States relations with Latin America from the Monroe Doctrine to the present. General themes 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 nineteenth and twentieth 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 nineteenth and twentieth 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 nineteenth- and twentieth-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.

3423 The Republic Transformed, 1820-1877
(3-0) 3 hours credit.
A study of the political, economic, social, and cultural developments in the United States from the age of Andrew Jackson through Reconstruction.

3433 The Emergence of Modern America, 1877-1929
(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.
3473 History of Women in the United States
(3-0) 3 hours credit.
Analysis of women's lives in American history, including how women have been affected by the economic, social, cultural, and political structures in different periods; how this experience has been altered by class, ethnicity, region, and age; and how women have coped with and promoted change throughout American history.

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.

3513 The Economic and Social History of Europe, A.D. 200-1500
(3-0) 3 hours credit.
A survey of European economic and social history from the end of the Roman Empire to early modern times. Among the topics to be considered are the third-century crisis, the effects of the Germanic and Muslim invasions, feudalism, the recovery of Europe in the High Middle Ages, and the impact of the Black Death.

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.

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 nineteenth- and twentieth-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.

3723 The European 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 fourteenth century and the emergence of a new, anti-medieval culture in Early Renaissance Italy, to about 1450.
3733  Europe in the Age of the 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  Russia, 1682-1917  
(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 twentieth-century Russia to the outside world.

3763  Russia before Peter the Great  
(3-0) 3 hours credit.  
An introduction to the period of Russian history beginning with the founding of the Kievan State in the ninth century A.D. and ending with Peter the Great. Topics may include the Mongol conquest, the use of Muscovite patrimonial autocracy, Ivan the Terrible's Oprichnina, the Time of Troubles, and the reattachment of Russia to Europe in the seventeenth century.

3813  American Political History  
(3-0) 3 hours credit.  
A study of American political history from the eighteenth 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 Policy  
(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.

3903  Modern Japan  
(3-0) 3 hours credit.  
An overview of Japanese history since the end of the sixteenth 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 twentieth-century China. The course will analyze and characterize the different phases of revolutionary changes in China and examine the sources of its revolutionary impulse.

4003  History of Organized Crime  
(3-0) 3 hours credit.  
A study of the emergence and development of various types of syndicated crime and their impact on American society since the nineteenth century.
4103  Growing Up In America  
(3-0) 3 hours credit.  
The course examines the concepts of childhood and adolescence in their historical contexts and examines how these concepts may change in the future. This investigation will utilize perspectives from history, the social sciences, psychology, literature, and film.

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 eighteenth 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  Uses and Abuses of History  
(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.

4303  Quantitative Methods in History  
(3-0) 3 hours credit. Prerequisites: HIS 2003 and CS 1033.  
An introduction to the use of statistics and computers in historical research. Topics will include social science methodology, statistics, and the use of database and statistical software. Students will prepare and analyze a statistical database as part of organizing and writing a major research paper.

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. Prerequisites: Permission in writing (form available) of the instructor, the student’s advisor, the 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.
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. Prerequisite: Consent of internship coordinator.  
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 approval of the honors program coordinator.  
Supervised research and preparation of an honors thesis. May be repeated once with advisor’s approval.

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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric (6 semester credit hours)** | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
Degree Requirements

A. 36 semester credit hours in the major, 21 of which must be at the upper-division level:

1. 15 semester credit hours of lower-division courses:
   
a. PSY 1013 Introduction to Psychology
   or
   PSY 1203 Principles of 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. 6 semester credit hours selected from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 2543</td>
<td>Theories of Learning</td>
</tr>
<tr>
<td>PSY 2553</td>
<td>Perception</td>
</tr>
<tr>
<td>PSY 2573</td>
<td>Psychology of Thought</td>
</tr>
<tr>
<td>PSY 2583</td>
<td>Psychology of Language</td>
</tr>
</tbody>
</table>

2. 21 semester credit hours of upper-division courses:

a. PSY 3403 Experimental Psychology
    PSY 3413 Experimental Psychology Laboratory

b. 3 semester credit hours selected from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 3103</td>
<td>Cognition</td>
</tr>
<tr>
<td>PSY 4113</td>
<td>Cognitive Development</td>
</tr>
<tr>
<td>PSY 4143</td>
<td>Memory</td>
</tr>
<tr>
<td>PSY 4163</td>
<td>Sensory Processes</td>
</tr>
<tr>
<td>PSY 4213</td>
<td>Social Cognition</td>
</tr>
<tr>
<td>PSY 4273</td>
<td>Styles of Thought</td>
</tr>
<tr>
<td>PSY 4293</td>
<td>Visual Information Processing</td>
</tr>
</tbody>
</table>

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 1073 Statistics for Psychology or approved substitute (Prerequisites: MAT 1023 or MAT 1033 and one psychology course)

NOTE: Requirement C must be satisfied before enrolling in PSY 3403 and 3413 and should be completed during the freshman or sophomore year.

D. 27 semester credit hours of electives

**Minor in Psychology**

All students pursing a Minor in Psychology must complete 18 semester credit hours.

A. 6 semester credit hours of required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 1013</td>
<td>Introduction to Psychology (This course may be used to satisfy the Core Curriculum requirement in Domain IIC.)</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>PSY 1203</td>
<td>Principles of Psychology (This course may be used to satisfy the Core Curriculum requirement in Domain IIC.)</td>
</tr>
<tr>
<td>PSY 3403</td>
<td>Experimental Psychology (concurrent enrollment in PSY 3413 waived; prerequisite of STA 1073 or equivalent required)</td>
</tr>
</tbody>
</table>
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 2553 Perception
- PSY 2573 Psychology of Thought
- PSY 2583 Psychology of Language

D. 6 additional upper-division semester credit hours of psychology courses, no more than 3 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 Division of Behavioral and Cultural Sciences.

**COURSE DESCRIPTIONS**

**PSYCHOLOGY**

(PSY)

**1001 Freshman Topics in Psychology**
(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 Psychology. Critical study of topics in psychology. 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 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 2013, or PSY 1203.) [TCCN: PSYC 2301.]

**1203 Principles of Psychology**
(3-0) hours credit. Prerequisite: Minimum TASP Math score of 270 or MAT 1023.
An introduction to the ways the scientific method has been used to understand behavior and mental processes. Topics will include learning, sensation, perception, memory, cognition, cognitive and social development, social cognition, social influences, motivation, personality, abnormal behavior, and psychotherapy. The relationship between psychology and the other sciences (especially biology) will be emphasized. Participation in illustrative research required. (Credit may be earned for only one of the following: PSY 1203, PSY 1013, or PSY 2013.) [TCCN: PSYC 2301.]
1513  **Knowledge and Learning**  
(2-2) 3 hours credit. Does not substitute for PSY 1013 or 1203 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. [TCCN: PSYC 2340.]

2503  **Developmental Psychology**  
(3-0) 3 hours credit. Prerequisite: PSY 1013 or 1203. 
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 or 1203. 
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 or 1203. 
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 or 1203. 
Problems, methods, major theories, and results in the study of social interaction and interpersonal influence; self-
identity, values and attitudes, role behavior, social perception, and behavior within groups. [TCCN: PSYC 2319.]

2543  **Theories of Learning**  
(3-0) 3 hours credit. Prerequisites: PSY 1013 or 1203; and MAT 1023 or the equivalent. 
An examination of major theories about the nature of the learning process. Discussion will focus on the construction 
and evaluation of learning models. The practical implications of theoretical findings for the acquisition, maintenance, 
and elimination of behavior will be considered.

2553  **Perception**  
(3-0) 3 hours credit. Prerequisites: PSY 1013 or 1203; and MAT 1023 or the equivalent. 
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. Examination of elementary sensory physiology, illusions, pattern recognition, perceptual development, 
and memory structures, and an introduction to information processing.

2573  **Psychology of Thought**  
(3-0) 3 hours credit. Prerequisites: PSY 1013 or 1203; and MAT 1023 or the equivalent. 
The processes of reasoning, concept formation, language, problem solving, and creativity. Topics may include the 
role of logic in thinking, information processing models of problem solving, and techniques influencing creativity.

2583  **Psychology of Language**  
(3-0) 3 hours credit. Prerequisite: PSY 1013 or 1203; and MAT 1023 or the equivalent. 
An introduction to the psychology of language. Contemporary research on the psychological aspects of language 
structure, comprehension, production, and development will be surveyed in order to illustrate the ways in which 
humans use verbal symbols to understand and describe events. Topics may include reading, brain-language 
relationships, and social determinants of thought and language.

3013  **Psychological Measurement**  
(3-0) 3 hours credit. Prerequisites: PSY 1013 or 1203; and STA 1053, 1063, or 1073 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 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 or 1203; or ANT 1013.
Perception, learning, cognition and thinking, personality, and social behavior from a cross-cultural perspective.

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, 2553, 2573, or 2583.
Examination of current information-processing models of human cognition theories about how knowledge is represented in the mind. 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. Prerequisites: 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. Prerequisites: PSY 2533 and 3403, 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. Prerequisites: PSY 2523 and 3403.
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.

3143 Social Psychology of the Self
(3-0) 3 hours credit. Prerequisites: PSY 2523 or 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.

3203 Industrial and Organizational Psychology
(3-0) 3 hours credit. Prerequisites: STA 1073 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, 2513, 2523, or 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, 2513, 2523, or 2533; one course from PSY 2543, 2553, 2573, or 2583; a minimum grade of “C” in STA 1073 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 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 1203; 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. Prerequisite: PSY 1013, 1203 or 2013. 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 nineteenth century.

4103  Prejudice
(3-0) 3 hours credit. Prerequisite: PSY 2533 and 3403 or consent of instructor. 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. Prerequisite: PSY 2503, 2573, and 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, 2523, or 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, 2553, 2573, 2583, or consent of instructor.  

4163  **Sensory Processes**  
(3-0) 3 hours credit. Prerequisites: PSY 2553 and 3403, 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 1203; or consent of instructor.  
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 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. (Credit cannot be earned for both PSY 4193 and 4203.)

4213  **Social Cognition**  
(3-0) 3 hours credit. Prerequisites: PSY 3403 or an equivalent; PSY 2533 or 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.

4223  **Environmental Psychology**  
(3-0) 3 hours credit. Prerequisite: PSY 2533 or consent of instructor.  
Analysis of the ways natural, architectural, and social environments structure the behavior of individuals and groups. Topics may include environmental perception, spatial behavior, manipulation of the environment, and the nature of the person-environment interaction.

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 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.

4283  **Freudian Psychology**  
(3-0) 3 hours credit. Prerequisites: PSY 2523 and upper-class standing.  
Development of Freud’s thought through a reading of his major works and a consideration of his life. The influence  
of Freud’s theories on neo-Freudian theorists and psychological theory and research.

4293  **Visual Information Processing**  
(3-0) 3 hours credit. Prerequisites: PSY 3403 and PSY 2553 or 2573; 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. Prerequisite: MGT 3013 and STA 1063; 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.

4911,3  **Independent Study**  
1 or 3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student’s advisor, the  
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. 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 or 1203; 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.

**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 3263 Archaeology of North America
- ANT 3273 Ancient Civilizations of Mesoamerica
- ANT 3363 Indians of Mesoamerica
- ANT 4113 Archaeology of Texas
- ANT 4123 Archaeology of the American Southwest
- ANT 4133 Indians of Texas
- 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 in the Division of Behavioral and Cultural Sciences.

**Minor in Women and Gender Studies**

The Minor in Women and Gender Studies 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 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 4013 Research on Contemporary Policy Issues

B. 12 additional semester credit hours, in at least two disciplines other than the student’s major, selected from the following:

- AMS 3053 Topics in Women and American Culture
- 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 Human Sex and Reproduction
- CRJ 4313 Minorities and Women in the Criminal Justice System
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 Division of Behavioral and Cultural Sciences.

**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. [TCCN: HUMA 2319.]

4013  **Research on Contemporary Policy Issues**

(3-0) 3 hours credit.

This course will allow the student to participate in directed research on a selected contemporary policy issue of relevance to women and/or gender. Students will research the issue and work together to formulate a policy recommendation. Women and gender studies minors are encouraged to recommend issues for examination to the women and gender studies advisor.

4913  **Independent Study in Women and Gender Studies**

3 hours credit. Prerequisites: Permission in writing (form available) from the instructor, the student’s advisor, the Division Director 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 internship coordinator.

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.
DIVISION OF ENGLISH, CLASSICS, PHILOSOPHY, AND COMMUNICATION

The division offers Bachelor of Arts degrees and minors in Communication, English, Humanities, Philosophy, and Classical Studies. Honors can also be earned in Communication, English, Humanities, Philosophy, and Classical Studies. If a student majors in Communication, he or she has the option of concentrating his or her course work in one of the following areas: Speech Communication, Technical Communication, Electronic Media, or Public Relations.

Honors in Communication

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 approved by the Division 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.

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.

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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhetoric (6 semester credit hours)</td>
<td>All students must take the following six hours to meet this core requirement:</td>
</tr>
<tr>
<td></td>
<td>ENG 1013 Freshman Composition</td>
</tr>
<tr>
<td></td>
<td>ENG 1023 Discourse across the Disciplines</td>
</tr>
<tr>
<td>Domain I: Mathematics and Science</td>
<td>Mathematics (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>Science (6 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Three hours from Level One and three hours from Level Two will satisfy this core requirement.</td>
</tr>
</tbody>
</table>
### Degree Requirements

**A. 27 semester credit hours of required coursework:**

1. **Common communication degree requirements**
   - COM 2213 Foundations of Communication
   - COM 3073 Conduct of Communication Inquiry
   - COM 3083 Language and Communication Theory
   - ENG 2413 Technical Writing

2. **Other required courses:**
   - COM 2113 Public Speaking
   - COM 2383 Relational Communication
   - COM 3243 Persuasion
   - COM 3253 Rhetorical Communication Analysis
   - COM 3553 Intercultural Communication or
   - COM 3563 International Communication

**B. 9 additional semester credit hours in communication at the upper-division level**

---

<table>
<thead>
<tr>
<th>Domain II: Society and Culture</th>
<th>United States History and Diversity (6 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any six hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>Political Studies (6 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any six hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>Social and Behavioral Sciences (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>Economics (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain III: Literature and the Arts</th>
<th>Literature (3 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>The Arts (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain IV: Interdisciplinary Studies</th>
<th>(3 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>
C. 6 semester credit hours in a single foreign language

D. 12 semester credit hours of approved support work in one of the following areas, which may also be used to satisfy a Core Curriculum requirement:

1. Intercultural/international studies
2. English language, composition, and visual arts
3. Social and behavioral sciences
4. Business, management, and marketing
5. Other subjects as may be individually justified by the student and approved by the undergraduate advisor

E. 24 semester credit hours of free electives

Technical 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 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| Rhetoric (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
| Domain I: Mathematics and Science | Mathematics (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
Science (6 semester credit hours)  
Three hours from Level One and three hours from Level Two will satisfy this core requirement. |
| Domain II: Society and Culture | United States History and Diversity (6 semester credit hours)  
Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
Political Studies (6 semester credit hours)  
Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
Social and Behavioral Sciences (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
Economics (3 semester credit hours)  
ECO 2023 Introductory Microeconomics |
Degree Requirements

A. 27 semester credit hours of required coursework:

1. Common communication degree requirements:

   COM 2213  Foundations of Communication
   COM 3073  Conduct of Communication Inquiry
   COM 3083  Language and Communication Theory
   ENG 2413  Technical Writing

2. Other required courses:

   COM 2733  Introduction to Communication Technologies
   COM 3623  Commercial Publications
   ENG 2433  Editing
   ENG 3413  Specialized Professional Writing
   COM 3553  Intercultural Communication
   or
   COM 3563  International Communication

B. 9 additional semester credit hours in communication at the upper-division level

C. 6 semester credit hours in a single foreign language

D. 18 semester credit hours of support work:

1. ACC 2003  Foundations of Accounting
   or
   ACC 2013  Principles of Accounting I

   FIN 3003  Survey of Finance
   ECO 2023  Introductory Microeconomics
2. 9 semester credit hours of approved support work in one of the following areas, which may also be used to satisfy a Core Curriculum requirement:
   a. Intercultural/international studies
   b. English language, composition, and visual arts
   c. Social and behavioral sciences
   d. Business, management, and marketing
   e. Other subjects as may be individually justified by the student and approved by the undergraduate advisor

E. 18 semester credit hours of free electives

**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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rhetoric (6 semester credit hours)</strong></td>
<td>All students must take the following six hours to meet this core requirement: ENG 1013 Freshman Composition ENG 1023 Discourse across the Disciplines</td>
</tr>
<tr>
<td><strong>Domain I: Mathematics and Science</strong></td>
<td><strong>Mathematics</strong> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <strong>Science</strong> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.</td>
</tr>
<tr>
<td><strong>Domain II: Society and Culture</strong></td>
<td><strong>United States History and Diversity</strong> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <strong>Political Studies</strong> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <strong>Social and Behavioral Sciences</strong> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <strong>Economics</strong> (3 semester credit hours) ECO 2023 Introductory Microeconomics</td>
</tr>
</tbody>
</table>
**Degree Requirements**

A. 27 semester credit hours of required coursework:

1. **Common communication degree requirements:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 2213</td>
<td>Foundations of Communication</td>
</tr>
<tr>
<td>COM 3073</td>
<td>Conduct of Communication Inquiry</td>
</tr>
<tr>
<td>COM 3083</td>
<td>Language and Communication Theory</td>
</tr>
<tr>
<td>ENG 2413</td>
<td>Technical Writing</td>
</tr>
</tbody>
</table>

2. **Other required courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 2733</td>
<td>Introduction to Communication Technologies</td>
</tr>
<tr>
<td>COM 3633</td>
<td>Professional Presentation</td>
</tr>
<tr>
<td>COM 3733</td>
<td>Fundamentals of Communications Media</td>
</tr>
<tr>
<td>COM 4733</td>
<td>Communications Design and Innovation</td>
</tr>
<tr>
<td>COM 3553</td>
<td>Intercultural Communication</td>
</tr>
<tr>
<td></td>
<td>or</td>
</tr>
<tr>
<td>COM 3563</td>
<td>International Communication</td>
</tr>
</tbody>
</table>

B. 9 additional semester credit hours in communication, at least 6 of which must be at the upper-division level

C. 6 semester credit hours in a single foreign language

D. 18 semester credit hours of support work:

1. **ACC 2003** Foundations of Accounting  
   
   or  
   
   **ACC 2013** Principles of Accounting I

2. **FIN 3003** Survey of Finance

3. **ECO 2023** Introductory Microeconomics

---

**Domain III: Literature and the Arts**

**Literature** (3 semester credit hours)

Any three hours listed under this section in the list of core courses will satisfy this core requirement.

**The Arts** (3 semester credit hours)

Any three hours listed under this section in the list of core courses will satisfy this core requirement.

**Domain IV: Interdisciplinary Studies**

(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.
2. 9 semester credit hours of approved support work in one of the following areas, which may also be used to satisfy a Core Curriculum requirement:
   a. Intercultural/international studies
   b. English language, composition, and visual arts
   c. Social and behavioral sciences
   d. Business, management, and marketing
   e. 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

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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric** (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
  ENG 1013 Freshman Composition  
  ENG 1023 Discourse across the Disciplines |
| **Domain I: Mathematics and Science** | **Mathematics** (3 semester credit hours)  
  Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
  **Science** (6 semester credit hours)  
  Three hours from Level One and three hours from Level Two will satisfy this core requirement. |
| **Domain II: Society and Culture** | **United States History and Diversity** (6 semester credit hours)  
  Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
  **Political Studies** (6 semester credit hours)  
  Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
  **Social and Behavioral Sciences** (3 semester credit hours)  
  Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
  **Economics** (3 semester credit hours)  
  ECO 2023 Introductory Microeconomics |
Degree Requirements

A. 30 semester credit hours of required coursework:

1. Common communication degree requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 2213</td>
<td>Foundations of Communication</td>
</tr>
<tr>
<td>COM 3073</td>
<td>Conduct of Communication Inquiry</td>
</tr>
<tr>
<td>COM 3083</td>
<td>Language and Communication Theory</td>
</tr>
<tr>
<td>ENG 2413</td>
<td>Technical Writing</td>
</tr>
</tbody>
</table>

2. Other required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 2733</td>
<td>Introduction to Communication Technologies</td>
</tr>
<tr>
<td>COM 3523</td>
<td>Public Relations</td>
</tr>
<tr>
<td>COM 4523</td>
<td>Case Studies in Public Relations</td>
</tr>
<tr>
<td>COM 4533</td>
<td>Public Relations Planning and Campaigns</td>
</tr>
<tr>
<td>ENG 3413</td>
<td>Specialized Professional Writing</td>
</tr>
<tr>
<td>COM 3553</td>
<td>Intercultural Communication</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>COM 3563</td>
<td>International Communication</td>
</tr>
</tbody>
</table>

B. 9 additional semester credit hours in communication, at least 3 of which must be at the upper-division level

C. 6 semester credit hours in a single foreign language

D. 18 semester credit hours of support work:

1. ACC 2003 Foundations of Accounting or
   ACC 2013 Principles of Accounting I

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 3003</td>
<td>Survey of Finance</td>
</tr>
<tr>
<td>ECO 2023</td>
<td>Introductory Microeconomics</td>
</tr>
</tbody>
</table>
2. 9 semester credit hours of approved support work in one of the following areas, which may also be used to satisfy a Core Curriculum requirement:
   a. Intercultural/international studies
   b. English language, composition, and visual arts
   c. Social and behavioral sciences
   d. Business, management, and marketing
   e. 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. 9 semester credit hours of required courses:

   COM 2213  Foundations of Communication
   COM 3083  Language and Communication Theory
   ENG 2413  Technical Writing

B. One of the following options:

   1. 12 additional semester credit hours of communication, at least 6 of which must be upper-division

   2. 12 additional hours as follows, at least 6 of which must be upper-division:
      
      6 semester credit hours of communication
      
      6 semester credit hours of English courses selected from
      
      ENG 2433  Editing
      ENG 3313  Advanced Composition
      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 three 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: ENG 1013 or the equivalent.
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.]
2113 **Public Speaking**  
(3-0) 3 hours credit. Prerequisite: COM 1043 or the equivalent.  

2123 **Oral Interpretation**  
(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement or the equivalent.  
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.]

2213 **Foundations of Communication**  
(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement or the equivalent.  
Introduction for communication majors to fundamental concepts in speech communication, technical communication, electronic media, and public relations. Students will have an opportunity to learn and develop essential skills, including the basic strategies and technologies used for information access, retrieval, and processing. Required of and restricted to students majoring in communication.

2343 **Introduction to Mass Communication**  
(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement or the equivalent.  
Critical examination of how the mass media interact with individuals and social groups. Exploration of media industries, products, and processes from various disciplinary perspectives. Comparative analysis of media products from different cultural and national contexts. [TCCN: COMM 1307.]

2383 **Relational Communication**  
(3-0) 3 hours credit. Prerequisite: COM 1043 or 2213.  
Analysis of research and theories concerning the role and effects of communication in the creation and maintenance of human relationships in friendship, marriage, family, and the professions. [TCCN: SPCH 1318.]

2733 **Introduction to Communication Technologies**  
(3-0) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in COM 2213.  
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. Does not count toward major requirements. [TCCN: SPCH 2144.]

3073 **Conduct of Communication Inquiry**  
(3-0) 3 hours credit. Prerequisite: COM 2213.  
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: COM 2213.  
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. Prerequisites: COM 1043 or COM 2213, and completion of Core Curriculum rhetoric requirement or the equivalent.  
Offers the opportunity to train in the preparation, construction, and critical analysis of argumentation. Exercises in oral communication in adversarial situations.
Communication Practices in Professional Development
(3-0) 3 hours credit. Prerequisite: COM 1043 or 2213.
Research and theory concerning the role and effects of communication in professional training and development. Focus on learning styles, information processing, motivational factors, gender differences, nonverbal communication, conflict, and communication apprehension.

Persuasion
(3-0) 3 hours credit. Prerequisite: COM 3083.
Theory and practice of influencing attitudes, beliefs, opinions, and actions. Emphasis on critical evaluation of persuasive messages and design of persuasive campaigns.

Rhetorical Communication Analysis
(3-0) 3 hours credit. Prerequisite: COM 2213.
Study of classical and contemporary rhetorical theory. Critical evaluation of communication messages and techniques of delivery.

Theories of Mass Communication
(3-0) 3 hours credit. Prerequisite: COM 2343 or the equivalent.
Overview of theories of mass communication. Includes exploration of the processes and effects of the media in public entertainment and information programming.

Public Relations
(3-0) 3 hours credit. Prerequisites: COM 2213 and ENG 2413.
Introduction to principles and practices of public relations, with emphasis on strategies and execution of campaigns. Some attention to public relations within multicultural communities.

Multicultural Public Communication Practices
(3-0) 3 hours credit. Prerequisite: COM 2213.
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.

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. Credit cannot be earned for both COM 3553 and COM 3573.

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.

Commercial Publications
(3-0) 3 hours credit. Prerequisite: ENG 2413 or the equivalent.
Theory and practice of commercial writing and desktop publishing, including manuals, proposals, and ephemeral publications such as newsletters and brochures. Includes discussion of document design, principles of layout, and typography.

Professional Presentation
(3-0) 3 hours credit. Prerequisites: COM 2213 and ENG 2413.
Fundamentals of professional presentations including information exchange, problem solving, persuasive proposals, and interviewing. Emphasis on the integration of oral presentation with written, graphic, and other media materials.
3733  **Fundamentals of Communications Media**  
(3-0) 3 hours credit. Prerequisite: COM 2733. 
Examination of basic technical concepts and their application to telecommunications technologies. Introduction to organizational processes of telecommunications development.

4413  **Topics in Speech Communication**  
(3-0) 3 hours credit. Prerequisite: COM 2213 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 2213 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 2213 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 2213 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. Prerequisite: COM 3523.  
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**  
1-3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student’s advisor, the Division Director, 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. Prerequisite: 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.
4953  **Special Studies in Communication**  
(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 no more than 6 semester  
credit hours, regardless of discipline, will apply toward a bachelor’s degree.

4973  **Seminar for Communication Majors**  
(3-0) 3 hours credit. Prerequisites: 12 upper-division semester credit hours in communication.  
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.

**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 Division 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 Undergraduate Certification Program in Education brochure for  
information. Undergraduates seeking elementary teacher certification must complete the interdisciplinary studies degree.

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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rhetoric</strong> (6 semester credit hours)</td>
<td>All students must take the following six hours to meet this core requirement:</td>
</tr>
<tr>
<td></td>
<td>ENG 1013 Freshman Composition</td>
</tr>
<tr>
<td></td>
<td>ENG 1023 Discourse across the Disciplines</td>
</tr>
<tr>
<td><strong>Domain I: Mathematics and Science</strong></td>
<td><strong>Mathematics</strong> (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td><strong>Science</strong> (6 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Three hours from Level One and three hours from Level Two will satisfy this core requirement.</td>
</tr>
</tbody>
</table>
Degree Requirements

A. 33 semester credit hours in English, 21 of which must be at the upper-division level:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 2213</td>
<td>Literary Criticism and Analysis</td>
</tr>
<tr>
<td>ENG 2223</td>
<td>Major British Writers I</td>
</tr>
<tr>
<td>ENG 2233</td>
<td>Major British Writers II</td>
</tr>
<tr>
<td>ENG 2263</td>
<td>Major American Writers</td>
</tr>
<tr>
<td>ENG 3223</td>
<td>Shakespeare: The Early Plays</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>ENG 3233</td>
<td>Shakespeare: The Later Plays</td>
</tr>
<tr>
<td>ENG 4973</td>
<td>Seminar for English Majors</td>
</tr>
</tbody>
</table>

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 must include the study of American literature; 3 hours of literature may be used to satisfy the Core Curriculum requirement in Domain IIIA.

B. 6 semester credit hours in a single foreign language
C. 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 30 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 30 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. Ethnic studies
9. Women’s studies
10. Other subjects as may be individually justified by the student and approved by the undergraduate advisor

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.

D. 27 semester credit hours of electives

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 of which must include the study of American literature

COURSE DESCRIPTIONS
ENGLISH
(ENG)

0103 Basic English

(3-1) 3 hours credit.
Offers the opportunity for increasing writing skills before enrollment in ENG 1013. Intensive practice in the writing process, including prewriting, organization, sentence structure, and use of grammar, spelling, and punctuation. Includes library research and documentation, and critical reading of academic writing. The course is offered on a credit/no-credit basis. Credit cannot be used to satisfy any degree requirements.
1001  **Freshman Topics in English**  
(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 English. Critical study of topics in English. 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 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  **Freshman Composition**  
(3-0) 3 hours credit. 
Reviews principles of the writing process and of using sources for writing. Introduces the patterns of development, summary and paraphrase, analysis, evaluation, and synthesis of multiple sources drawn from a variety of cultural and intellectual contexts. Includes attention to forms of oral and visual communication and extensive library research and documentation. (This course or an equivalent is required of all undergraduates in fulfilling the Core Curriculum requirement and is normally taken during the first semester of the freshman year.) [TCCN: ENGL 1301.]

1023  **Discourse across the Disciplines**  
(3-0) 3 hours credit. Prerequisite: ENG 1013 or the equivalent. 
Extensive writing practice in the use of logical and organizational patterns and introduction to persuasion in written, oral, and visual form. Develops critical and analytical skills through multidisciplinary and multicultural readings. (This course or an equivalent is required of all undergraduates in fulfilling the Core Curriculum requirement and should be taken as the continuation of ENG 1013.) [TCCN: ENGL 1302.]

2013  **Introduction to Literature**  
(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement or the equivalent. 
Introductory study of great works of literature with an emphasis on novels, plays, and poetry by British and American authors. Designed for nonmajors. [TCCN: ENGL 2331.]

2213  **Literary Criticism and Analysis**  
(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement or the equivalent. 
A study of poetry, fiction, and drama, with close attention to literary terms, literary criticism, and the characteristics of each genre. Required of and restricted to students majoring in English.

2223  **Major British Writers I**  
(3-0) 3 hours credit. Prerequisite: ENG 2213 or 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: ENG 2213 or completion of the Core Curriculum requirement in literature. 
Study of representative works of major British writers from the Age of Pope to the early twentieth century. Required of students majoring in English. [TCCN: ENGL 2323.]

2263  **Major American Writers**  
(3-0) 3 hours credit. Prerequisite: ENG 2213 or 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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2333</td>
<td>Creative Writing: Poetry</td>
<td>(3-0) 3</td>
<td>Requires completion of the Core Curriculum requirement in literature. Offers the opportunity for intensive practice and development of techniques in the writing of poetry.</td>
</tr>
<tr>
<td>2373</td>
<td>Literature for Children and Adolescents</td>
<td>(3-0) 3</td>
<td>Requires completion of the Core Curriculum requirement in literature. Literary analysis of the kinds of reading available for children and adolescents: poetry, drama, biography, science fiction, mystery, and fantasy. Both classics and current trends will be considered. Emphasis on the novel.</td>
</tr>
<tr>
<td>2383</td>
<td>Minority Voices in American Literature</td>
<td>(3-0) 3</td>
<td>Requires completion of Core Curriculum rhetoric requirement or the equivalent. A survey of the literature of various minority groups such as Native American, African American, and Hispanic. Designed for nonmajors.</td>
</tr>
<tr>
<td>2413</td>
<td>Technical Writing</td>
<td>(3-0) 3</td>
<td>Requires completion of Core Curriculum rhetoric requirement or the equivalent. Techniques of expository writing, particularly adapted to students in technological and scientific subjects. [TCCN: ENGL 2311.]</td>
</tr>
<tr>
<td>2423</td>
<td>Literature of Texas and the Southwest</td>
<td>(3-0) 3</td>
<td>Requires completion of Core Curriculum rhetoric requirement or the equivalent. Study of the literature of Texas and the Southwest, including an examination of the region’s multicultural heritage. Designed for nonmajors.</td>
</tr>
<tr>
<td>2433</td>
<td>Editing</td>
<td>(3-0) 3</td>
<td>Requires ENG 2413 or the equivalent. 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.</td>
</tr>
</tbody>
</table>
| 2613        | Introduction to Literary Forms                   | (3-0) 3 | Requires completion of Core Curriculum rhetoric requirement or the equivalent. Offers the opportunity to discuss classic and contemporary selections from a single literary form: fiction, poetry, or drama. May be repeated for credit when topics vary. Designed for nonmajors.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3033</td>
<td>American Literature, 1945 to Present</td>
<td>(3-0) 3</td>
<td>Requires ENG 2213 or 12 semester credit hours of English. Critical study of major American writers of the past five decades.</td>
</tr>
<tr>
<td>3053</td>
<td>American Literature to 1870</td>
<td>(3-0) 3</td>
<td>Requires ENG 2213 or 12 semester credit hours of English. Study of major American writers before the late nineteenth century, including Hawthorne, Melville, and Dickinson.</td>
</tr>
<tr>
<td>3063</td>
<td>American Literature, 1870-1945</td>
<td>(3-0) 3</td>
<td>Requires ENG 2213 or 12 semester credit hours of English. Study of major American writers of the late nineteenth and early twentieth centuries, including Twain, Eliot, Hemingway, and Faulkner.</td>
</tr>
<tr>
<td>3113</td>
<td>Studies in Individual Authors</td>
<td>(3-0) 3</td>
<td>Requires ENG 2213 or 12 semester credit hours of English. 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.</td>
</tr>
</tbody>
</table>
3123   **Modern Fiction**  
(3-0) 3 hours credit. Prerequisite: ENG 2213 or 12 semester credit hours of English.  
Critical survey of American, British, and Continental fiction of the twentieth 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 12 semester credit hours of 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 or 12 semester credit hours of English.  
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 or the equivalent.  
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 or the equivalent.  
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 or 12 semester credit hours of English.  
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 or 12 semester credit hours of English.  
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 or 12 semester credit hours of English.  
Critical survey of English novels, selected chiefly from the eighteenth and nineteenth centuries.

3253   **The American Novel**  
(3-0) 3 hours credit. Prerequisite: ENG 2213 or 12 semester credit hours of English.  
Reading and discussion of representative American novels.

3273   **Milton**  
(3-0) 3 hours credit. Prerequisite: ENG 2213 or 12 semester credit hours of English.  
Reading and analysis of Milton’s major poems and selected prose in the context of his times.

3303   **Theory and Practice of Composition**  
(3-0) 3 hours credit. Prerequisite: ENG 2213 or 12 semester credit hours of English.  
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 or 12 semester credit hours of English.  
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.

3393 Theory of Literature
(3-0) 3 hours credit. Prerequisite: ENG 2213 or 12 semester credit hours of English.
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 or the equivalent.
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 12 semester credit hours of English.
Critical study of literature by and about Mexican Americans, including prose, verse, drama, essays, and
autobiography. Concentration on writings since 1959.

4013 Eighteenth-Century Literature
(3-0) 3 hours credit. Prerequisite: ENG 2233 or the equivalent.
Selected readings in the fiction, poetry, and prose of the British literature of the eighteenth century. Emphasis on such
major writers as Defoe, Pope, Swift, Fielding, Johnson, and Burns.

4023 Romantic Literature
(3-0) 3 hours credit. Prerequisite: ENG 2233 or the equivalent.
Selected readings in the fiction, poetry, and prose of the British Romantic period. Emphasis on such major writers as
Wordsworth, Coleridge, Byron, Keats, and Shelley.

4033 Literary Modes and Genres
(3-0) 3 hours credit. Prerequisite: ENG 2223, 2233, or the equivalent.
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, 2263, or the equivalent.
An intensive study of chief modern poets, with emphasis on Yeats, Eliot, Pound, Auden, Stevens, Williams, and
Lowell.
4063 Medieval English Literature  
(3-0) 3 hours credit. Prerequisite: ENG 2223 or the equivalent.  
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 or the equivalent.  
Selected readings from major writers of the sixteenth and seventeenth centuries (excluding Shakespeare), with emphasis on Spenser, Donne, Jonson, Milton, and Marvell.

4143 Victorian Literature  
(3-0) 3 hours credit. Prerequisite: ENG 2233 or the equivalent.  
Selected readings in the fiction, poetry, and nonfiction prose of major Victorian writers, with emphasis on Tennyson, Browning, Eliot, Dickens, Hardy, and Hopkins.

4393 Feminist Theory of Literature  
(3-0) 3 hours credit. Prerequisite: ENG 3133 or 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, LNG 3913, or the equivalent.  
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.

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 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 hours will apply toward the English major.

4613 Topics in Mexican American Literature  
(3-0) 3 hours credit. Prerequisite: ENG 2263, ENG 3513, or the equivalent.  
Critical study of a topic in Mexican American literature: author, genre, or theme. May be repeated for credit when topics vary.

4911-3 Independent Study  
1-3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student’s advisor, the Division Director, 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. Prerequisites: 12 upper-division semester credit hours in English or the equivalent.  
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.

**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 Division 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| Rhetoric (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
| Domain I: Mathematics and Science | **Mathematics** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
**Science** (6 semester credit hours)  
Three hours from Level One and three hours from Level Two will satisfy this core requirement. |
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

   "United States History and Diversity" (6 semester credit hours)
   Any six hours listed under this section in the list of core courses will satisfy this core requirement.

   "Political Studies" (6 semester credit hours)
   Any six hours listed under this section in the list of core courses will satisfy this core requirement.

   "Social and Behavioral Sciences" (3 semester credit hours)
   Any three hours listed under this section in the list of core courses will satisfy this core requirement.

   "Economics" (3 semester credit hours)
   Any three hours listed under this section in the list of core courses will satisfy this core requirement.

Domain II: Society and Culture

Domain III: Literature and the Arts

Domain IV: Interdisciplinary Studies

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.
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 foreign language

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)**

**1001 Freshman Topics in Humanities**

(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 Humanities. Critical study of topics in humanities. 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 three semester credit hours of freshman topics courses may apply to a bachelor’s degree, although this specific topic may be taken only once.
2093 **World Religions**
(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement or the equivalent. Examination of the origins, teachings, development, and philosophical foundations of the world’s chief religious movements, including Hinduism, Buddhism, Shintoism, Confucianism, Taoism, Sikhism, Jainism, 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 or the equivalent. 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 or the equivalent. 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 or the equivalent. 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 or the equivalent. Interdisciplinary investigation of European thought and culture in the later seventeenth and the eighteenth 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 or the equivalent. Interdisciplinary investigation of the development of ideas in literature, philosophy, art, politics, and society at the end of the eighteenth and beginning of the nineteenth century. Figures such as Rousseau, Kant, Wordsworth, Goethe, and Goya will be considered.

3063 **The Modern World**
(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement or the equivalent. Interdisciplinary investigation of modern thought in the late nineteenth and twentieth 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 or the equivalent. 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 or the equivalent. The opportunity for an intensive survey of selected works of writers such as Augustine, Dante, Milton, Bunyan, Pascal, Hopkins, and Eliot, 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 or the equivalent. 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 or the equivalent. 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 Division Director, 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, philosophy, or the equivalent. Undergraduate seminar limited to humanities majors in their senior year. Content varies with each instructor. May be repeated once for credit when topics vary.

**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 Division 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 5-10 of this catalog.
<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric** (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
| | ENG 1013 Freshman Composition  
| | ENG 1023 Discourse across the Disciplines |
| **Domain I: Mathematics and Science** | **Mathematics** (3 semester credit hours)  
| | Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
| **Science** (6 semester credit hours) | Three hours from Level One and three hours from Level Two will satisfy this core requirement. |
| **Domain II: Society and Culture** | **United States History and Diversity** (6 semester credit hours)  
| | Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
| **Political Studies** (6 semester credit hours) | Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
| **Social and Behavioral Sciences** (3 semester credit hours) | Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
| **Economics** (3 semester credit hours) | Any three hours listed under this section in the list of core courses will satisfy this core requirement. |
| **Domain III: Literature and the Arts** | **Literature** (3 semester credit hours)  
| | Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
| **The Arts** (3 semester credit hours) | Any three hours listed under this section in the list of core courses will satisfy this core requirement. |
| **Domain IV: Interdisciplinary Studies** | (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:

- PHI 2013 Basic Philosophical Problems
- PHI 2023 Introduction to Ancient Philosophy
- PHI 2033 Introduction to Modern Philosophy
- PHI 2043 Introductory Logic

UTSA 2000–2002 Undergraduate Catalog
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 foreign language

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:

1. Mathematics and natural sciences: computer science (CS), mathematics (MAT), statistics (STA), chemistry (CHE), geology (GEO), physics (PHY), astronomy (AST), and biology (BIO)
2. Social and behavioral sciences: American studies (AMS), anthropology (ANT), history (HIS), psychology (PSY), economics (ECO), political science (POL), sociology (SOC), and social science (SSC)
3. Language, literature, and humanities: English (ENG), humanities (HUM), classical studies (CLA), communication (COM), comparative studies in the humanities (CSH), linguistics (LNG), and foreign languages
4. History and theory of art and music: art history and criticism (AHC) and music (MUS)
5. 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)

1001  Freshman Topics in Philosophy
(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 Philosophy. Critical study of topics in philosophy. 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 three semester credit hours of freshman topics courses may apply to a bachelor’s degree, although this specific topic may be taken only once.
<table>
<thead>
<tr>
<th>Course code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>Basic Philosophical Problems</td>
<td>3-0</td>
<td>Completion of Core Curriculum rhetoric requirement or the equivalent.</td>
<td>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.]</td>
</tr>
<tr>
<td>2023</td>
<td>Introduction to Ancient Philosophy</td>
<td>3-0</td>
<td>Completion of Core Curriculum rhetoric requirement or the equivalent.</td>
<td>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.]</td>
</tr>
<tr>
<td>2033</td>
<td>Introduction to Modern Philosophy</td>
<td>3-0</td>
<td>Completion of Core Curriculum rhetoric requirement or the equivalent.</td>
<td>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.]</td>
</tr>
<tr>
<td>2043</td>
<td>Introductory Logic</td>
<td>3-0</td>
<td>Completion of Core Curriculum rhetoric requirement or the equivalent.</td>
<td>Study of the principles of valid argument definition, deductive and inductive inference, and fallacies. [TCCN: PHIL 2303.]</td>
</tr>
<tr>
<td>2123</td>
<td>Moral Issues in Contemporary America</td>
<td>3-0</td>
<td>Completion of Core Curriculum rhetoric requirement or the equivalent.</td>
<td>Examination of ethical issues facing American society, with emphasis on medical, social, and business ethics.</td>
</tr>
<tr>
<td>3013</td>
<td>Philosophy of Religion</td>
<td>3-0</td>
<td>Completion of Core Curriculum rhetoric requirement or the equivalent.</td>
<td>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.</td>
</tr>
<tr>
<td>3033</td>
<td>Philosophy of Science</td>
<td>3-0</td>
<td>PHI 2013, 2043, or the equivalent.</td>
<td>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.</td>
</tr>
<tr>
<td>3053</td>
<td>Philosophy of Art</td>
<td>3-0</td>
<td>Completion of Core Curriculum rhetoric requirement or the equivalent.</td>
<td>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.</td>
</tr>
<tr>
<td>3073</td>
<td>Asian Philosophy</td>
<td>3-0</td>
<td>Completion of Core Curriculum rhetoric requirement or the equivalent.</td>
<td>Examination of the philosophical and religious traditions of the East, with emphasis on various schools such as Vedanta, Buddhism, Confucianism, and Taoism.</td>
</tr>
<tr>
<td>3213</td>
<td>Ethics</td>
<td>3-0</td>
<td>PHI 2013 or the equivalent.</td>
<td>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.</td>
</tr>
</tbody>
</table>
Approaches to Knowledge and Reality
(3-0) 3 hours credit. Prerequisite: PHI 2013, 2043, or the equivalent.
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.

Issues and Movements in Twentieth-Century Philosophy
(3-0) 3 hours credit. Prerequisite: PHI 2013 or the equivalent.
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.

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.

Contemporary Analytic Philosophy
(3-0) 3 hours credit. Prerequisite: PHI 2013 or the equivalent.
An in-depth examination of the major trends in the development of the Anglo-American philosophical tradition during the twentieth century, including the early analysts, the development of logical positivism, and the emergence of nonformal linguistic analysis.

Contemporary Continental Philosophy
(3-0) 3 hours credit. Prerequisite: PHI 2013 or the equivalent.
A sustained treatment of the major trends in twentieth-century European philosophy, including movements such as phenomenology, existentialism, hermeneutics, and postmodernism; emphasis on historical development.

Philosophy of Language
(3-0) 3 hours credit. Prerequisite: PHI 2013 or the equivalent.
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.

Independent Study
1–3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student’s advisor, the Division Director, 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.

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 the topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor’s degree.

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 Division 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rhetoric</strong> (6 semester credit hours)</td>
<td>All students must take the following six hours to meet this core requirement: ENG 1013 Freshman Composition ENG 1023 Discourse across the Disciplines</td>
</tr>
<tr>
<td><strong>Domain I: Mathematics and Science</strong></td>
<td><strong>Mathematics</strong> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <strong>Science</strong> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.</td>
</tr>
<tr>
<td><strong>Domain II: Society and Culture</strong></td>
<td><strong>United States History and Diversity</strong> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <strong>Political Studies</strong> (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. <strong>Social and Behavioral Sciences</strong> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <strong>Economics</strong> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td><strong>Domain III: Literature and the Arts</strong></td>
<td><strong>Literature</strong> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <strong>The Arts</strong> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>
Degree Requirements

A. 42 semester credit hours of foundation courses

B. 23 semester credit hours:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAT 1114</td>
<td>Introductory Latin I (or the equivalent)</td>
</tr>
<tr>
<td>LAT 1124</td>
<td>Introductory Latin II (or the equivalent)</td>
</tr>
<tr>
<td>LAT 2113</td>
<td>Intermediate Latin I (or the equivalent)</td>
</tr>
<tr>
<td>LAT 2123</td>
<td>Intermediate Latin II (or the equivalent)</td>
</tr>
<tr>
<td>LAT 3113</td>
<td>Selected Latin Authors</td>
</tr>
<tr>
<td>LAT 4013</td>
<td>Advanced Readings in Latin</td>
</tr>
<tr>
<td>PHI 2023</td>
<td>Introduction to Ancient Philosophy</td>
</tr>
</tbody>
</table>

C. 6 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, or any foreign language of the Division of Foreign Languages in the UTSA 2000-2002 Undergraduate Catalog.

D. 21 semester credit hours of prescribed electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLA 2013</td>
<td>Introduction to Ancient Greece</td>
</tr>
<tr>
<td>CLA 2023</td>
<td>Introduction to Ancient Rome</td>
</tr>
<tr>
<td>CLA 3023</td>
<td>Classical Myths and Literature</td>
</tr>
<tr>
<td>CLA 3053</td>
<td>Topics in Classical Genres</td>
</tr>
<tr>
<td>CLA 3063</td>
<td>Topics in the Art and Architecture of the Classical World</td>
</tr>
<tr>
<td>CLA 3123</td>
<td>Cultural Issues in Classical Antiquity</td>
</tr>
<tr>
<td>CLA 3513</td>
<td>Topics in Classical History</td>
</tr>
<tr>
<td>CLA 4913</td>
<td>Independent Study</td>
</tr>
<tr>
<td>CLA 4953</td>
<td>Special Studies in Classics</td>
</tr>
</tbody>
</table>

E. 28 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 hours of required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLA 2013</td>
<td>Introduction to Ancient Greece</td>
</tr>
<tr>
<td>CLA 2023</td>
<td>Introduction to Ancient Rome</td>
</tr>
<tr>
<td>CLA 2033</td>
<td>Introduction to Classical Literature</td>
</tr>
</tbody>
</table>

D. 9 additional semester hours of upper-division coursework in Classics or Latin.
COURSE DESCRIPTIONS
CLASSICS
(CLA)

1001  Freshman Topics in Classics
(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 Classics. Critical study of topics in classics. 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 three semester credit hours of freshman topics courses may apply to a bachelor’s degree, although this specific topic may be taken only once.

2013  Introduction to Ancient Greece
(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement or equivalent.
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 or equivalent.
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 or equivalent.
Introductory study of selected works of ancient Greek and Roman authors, with emphasis on epic, drama, satire, and lyric. [TCCN: ENGL 2331.]

2323  Classical Mythology
(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum rhetoric requirement or equivalent.
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 or equivalent.
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 or equivalent.
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 or equivalent.
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 or equivalent. 
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**  
1–3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student’s advisor, the Division Director, 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 six 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 six hours, regardless of discipline, will apply to a bachelor’s degree.

**COURSE DESCRIPTIONS**  
**LATIN**  
(LAT)

1114  **Introductory Latin I**  
(4-0) 4 hours credit. 
Fundamentals of Latin grammar and readings in Latin.

1124  **Introductory Latin II**  
(4-0) 4 hours credit. Prerequisite: LAT 1114. 
Fundamentals of Latin grammar and readings in Latin. [TCCN: LATI 2311.]

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.

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.]

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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1013</td>
<td>Acting I</td>
<td>3-0</td>
<td>Completion of the Core Curriculum requirement in literature.</td>
<td>Fundamental techniques of acting, emphasizing the actor’s approach to characterization and relationship to all parts of the play’s production. [TCCN: DRAM 1351.]</td>
</tr>
<tr>
<td>1023</td>
<td>Acting II</td>
<td>3-0</td>
<td>Completion of the Core Curriculum requirement in literature.</td>
<td>Sustained character portrayal. Intensive work in stage movement and vocal techniques, including dialects. [TCCN: DRAM 1352.]</td>
</tr>
</tbody>
</table>
DIVISION OF FOREIGN LANGUAGES

The Division of Foreign Languages offers majors in French, German, and Spanish designed to develop the student’s specialized knowledge of culture, literature, and language. The division also offers minors in French, German, Russian, Spanish, Comparative Literature, Foreign Languages, and Linguistics. The minors give students the opportunity to refine language skills 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 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 (See study abroad options under Course Descriptions-Foreign Languages).

DIVISION 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 division is at least 3.5, and who has completed 18 semester credit hours at the upper division in the major (24 hours for Spanish) may petition the undergraduate 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 Division Honors Committee will evaluate the project the student completed in the honors course and determine whether he or she will be awarded Division 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 Undergraduate Certification Programs in Education brochure for information. Undergraduates seeking elementary teaching certification must complete the interdisciplinary studies degree.

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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric** (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
| **Domain I: Mathematics and Science** | **Mathematics** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
**Science** (6 semester credit hours)  
Three hours from Level One and three hours from Level Two will satisfy this core requirement. |
### Domain II: Society and Culture

**United States History and Diversity** (6 semester credit hours)
Any six hours listed under this section in the list of core courses will satisfy this core requirement.

**Political Studies** (6 semester credit hours)
Any six hours listed under this section in the list of core courses will satisfy this core requirement.

**Social and Behavioral Sciences** (3 semester credit hours)
Any three hours listed under this section in the list of core courses will satisfy this core requirement.

**Economics** (3 semester credit hours)
Any three hours listed under this section in the list of core courses will satisfy this core requirement.

### Domain III: Literature and the Arts

**Literature** (3 semester credit hours)
Any three hours listed under this section in the list of core courses will satisfy this core requirement.

**The Arts** (3 semester credit hours)
Any three hours listed under this section in the list of core courses will satisfy this core requirement.

### Domain IV: Interdisciplinary Studies

(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. 24 semester credit hours in the major, all of which must be at the upper-division level, as follows:

- FRN 3023  Oral Communication and Composition
- FRN 3413  French Literature and Culture until 1800
- FRN 3423  French Literature and Culture since 1800
- 15 additional semester credit hours in French 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  Sociology of Language

2. 6 additional semester credit hours outside the major in another foreign language at the upper-division level and/or a related area, including other literature, culture, or linguistics courses chosen in consultation with the student’s advisor

C. 42 semester credit hours of electives
Minor in French

All students pursuing the Minor in French must complete 18 semester credit hours.

A. 9 semester credit hours of required language skill courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Prerequisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRN 2013</td>
<td>Intermediate French I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>FRN 2023</td>
<td>Intermediate French II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>FRN 3023</td>
<td>Oral Communication and Composition</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

B. 9 additional semester credit hours of upper-division French courses 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, or an appropriate placement test score.
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, or an appropriate placement test score.
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, or an appropriate placement test score.
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.) [TCCN: ENGL 2331.]

3023 Oral Communication and Composition
(3-0) 3 hours credit. Prerequisite: FRN 2023 or consent of instructor.
Conversation correlated with readings, reports, and expository writing, aimed at increasing oral and written fluency and accuracy. Vocabulary expansion and selective grammar review. May be repeated once for credit.

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  French Literature and Culture until 1800  
(3-0) 3 hours credit. Prerequisite: FRN 2023 or consent of instructor.  
Selections from French literature studied as reflections and interpretations of central movements in French literary  
and cultural history until 1800. Introduction to concepts of literary style, genre, and period, with emphasis on poetry  
and drama.

3423  French Literature and Culture since 1800  
(3-0) 3 hours credit. Prerequisite: FRN 2023 or consent of instructor.  
Selections from French literature studied as reflections and interpretations of central movements in French literary  
and cultural history since 1800. Introduction to concepts of literary style, genre, and period, with emphasis on poetry  
and the novel.

3433  French Civilization  
(3-0) 3 hours credit. Prerequisite: FRN 2023 or consent of instructor.  
A chronological survey of French history, society, ideas, and arts, with emphasis on reading and analysis of materials  
from primary sources such as historical documents, memoirs, chronicles, philosophical and scientific discourses, and  
literature.

3613  Contemporary French Culture and Society  
(3-0) 3 hours credit. Prerequisite: FRN 2023 or consent of instructor.  
Social, political, economic, and cultural aspects of contemporary France, with emphasis on reading and analysis of  
materials from primary sources such as official documents, informational publications, newspapers, magazines,  
radio, and television. Attention to current national and regional problems and conflicts.

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 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.

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 Undergraduate Certification Programs in  
Education brochure for information. Undergraduates seeking elementary teacher certification must complete the  
interdisciplinary studies degree.

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 5-10 of this catalog.
### Degree Requirements

A. 24 semester credit hours in the major, all of which must be at the upper-division level, as follows:

<table>
<thead>
<tr>
<th>Major Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>GER 3023 Oral Communication and Composition</td>
</tr>
<tr>
<td>GER 3413 German Literature and Culture I: Middle Ages to 1700</td>
</tr>
<tr>
<td>GER 3423 German Literature and Culture II: 1700 to the Present</td>
</tr>
</tbody>
</table>

15 additional semester credit hours in German chosen in consultation with the student’s advisor

---

### Core Curriculum Requirements

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| Rhetoric (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
  ENG 1013 Freshman Composition  
  ENG 1023 Discourse across the Disciplines |
| Domain I: Mathematics and Science | Mathematics (3 semester credit hours)  
  Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
 Science (6 semester credit hours)  
  Three hours from Level One and three hours from Level Two will satisfy this core requirement. |
| Domain II: Society and Culture | United States History and Diversity (6 semester credit hours)  
  Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
 Political Studies (6 semester credit hours)  
  Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
 Social and Behavioral Sciences (3 semester credit hours)  
  Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
 Economics (3 semester credit hours)  
  Any three hours listed under this section in the list of core courses will satisfy this core requirement. |
| Domain III: Literature and the Arts | Literature (3 semester credit hours)  
  Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
 The Arts (3 semester credit hours)  
  Any three hours listed under this section in the list of core courses will satisfy this core requirement. |
| Domain IV: Interdisciplinary Studies | (3 semester credit hours)  
  Any three hours listed under this section in the list of core courses will satisfy this core requirement. |
B. 12 semester credit hours of support work, as follows:

1. At least 6 semester 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
   - LNG 3833 Sociology of Language

   or

2. Hours remaining to make the total of 12 selected from section B.1 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.

A. 9 semester credit hours of required language skill courses:

1. GER 2013 Intermediate German I
   GER 2023 Intermediate German II

2. GER 3023 Oral Communication and Composition
   or
   GER 3053 Advanced German Grammar and Stylistics

B. 9 additional semester credit hours of upper-division German courses 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, or an appropriate placement test score.
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, or an appropriate placement test score. 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.) [TCCN: ENGL 2331.]

3023 Oral Communication and Composition
(3-0) 3 hours credit. Prerequisite: GER 2023 or consent of instructor. Conversation correlated with contemporary readings in everyday situations. Practical vocabulary in reading, speaking, and writing is stressed. Oral reports and expository writing are aimed at increasing fluency through vocabulary expansion and selective grammar review. Attention is given to individual students' pronunciation, word choice, and syntax. May be repeated once for credit when topics vary.

3053 Advanced German Grammar and Stylistics
(3-0) 3 hours credit. Prerequisite: GER 3023 or consent of instructor. A study of selected syntactic characteristics of the language, with special attention given to advanced grammatical categories and stylistic differentiation of literary and nonliterary language. Application of language skills in relevant situations is stressed. Readings deal with contemporary social, economic, political, intellectual, and/or artistic interests and issues. May be repeated once for credit when topics vary.

3353 Critical Perspectives on Contemporary German Culture
(3-0) 3 hours credit. Prerequisite: GER 2023 or consent of instructor. Systematic development of speaking and writing skills through understanding and analyzing forms of culture production in contemporary German-speaking societies (e.g., German TV, working with German online resources).

3413 German Literature and Culture I: Middle Ages to 1700
(3-0) 3 hours credit. Prerequisite: GER 2023 or consent of instructor. Selected works from the medieval period to 1700 are studied as examples of central movements in German culture and literary history. The course presents the shape of German civilization, emphasizing the major literary periods, styles, movements, and generations.

3423 German Literature and Culture II: 1700 to the Present
(3-0) 3 hours credit. Prerequisite: GER 2023 or consent of instructor. Selected works from 1700 to the present are studied as examples of central movements in German culture and literary history. The course presents the shape of German civilization, emphasizing the major literary periods, styles, movements, and generations.

4003 Topics in Periods of German Literature
(3-0) 3 hours credit. Prerequisite: GER 3413, 3423, or consent of instructor. Focus on a specific period of German literature, from the medieval period through the twentieth century. Selected texts are studied as examples of representative movements in German literary history. May be repeated for credit when topics vary.

4013 Genre Studies
(3-0) 3 hours credit. Prerequisite: GER 3413, 3423, or consent of instructor. Study of a single genre or subgenre in German, such as lyric, drama, novel, and film. May be repeated for credit when topics vary.
4133  **Major German Authors**  
(3-0) 3 hours credit. Prerequisite: GER 3413, 3423, or consent of instructor.  
Study of one or several German literary or intellectual figures, such as Luther, Goethe, Nietzsche, or Brecht. May be repeated for credit when topics vary.

4213  **German Studies: Culture**  
(3-0) 3 hours credit. Prerequisite: GER 3413, 3423, or consent of instructor.  
Focuses on selected topics of cultural history, such as Vienna 1890-1914, Expressionism, or contemporary cultural/political developments. May be repeated when topics vary.

4333  **Studies in German Linguistics**  
(3-0) 3 hours credit. Prerequisite: GER 2023 or consent of instructor.  
Focuses on a selected topic of linguistics. 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 Division Director, 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 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 Division Director.  
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 Undergraduate Certification Programs in Education brochure for information. Undergraduates seeking elementary teacher certification must complete the interdisciplinary studies degree.

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 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rhetoric (6 semester credit hours)</strong></td>
<td>All students must take the following six hours to meet this core requirement:</td>
</tr>
<tr>
<td></td>
<td>ENG 1013 Freshman Composition</td>
</tr>
<tr>
<td></td>
<td>ENG 1023 Discourse across the Disciplines</td>
</tr>
<tr>
<td><strong>Domain I: Mathematics and Science</strong></td>
<td>Mathematics (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td><strong>Domain II: Society and Culture</strong></td>
<td>United States History and Diversity (6 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any six hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>Political Studies (6 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any six hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>Social and Behavioral Sciences (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>Economics (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td><strong>Domain III: Literature and the Arts</strong></td>
<td>Literature (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>The Arts (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td><strong>Domain IV: Interdisciplinary Studies</strong></td>
<td>(3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>
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 4033 Advanced Oral Communication Skills (with placement score of 2+ or above)
   - SPN 3043 Advanced Reading
   - SPN 3063 Grammar and Composition
   - SPN 3073 Advanced Grammar and Composition

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

4. 6 semester credit hours as follows:

   - SPN 3613 Spanish Culture and Civilization
   - SPN 3623 Latin American Culture and Civilization

5. 9 semester hours of Spanish electives, 3 of which must be at the 4000 level

B. 12 additional semester credit hours of coursework not taught in Spanish, in a single area or a combination, selected from the following in consultation with the undergraduate advisor: literature, culture, linguistics, foreign language (translation, cross-cultural communication, dramatic performance, 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 4033 Advanced Oral Communication Skills
(with placement score of 2+ or above)

SPN 3043 Advanced Reading
SPN 3063 Grammar and Composition

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. [TCCN: SPAN 2311.]

2006 Intermediate Spanish-Accelerated
(6-2) 6 hours credit. Prerequisite: SPN 1008, 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, 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.]
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2103</td>
<td>Oral and Written Expression</td>
<td>(3-1) 3 hrs</td>
<td>SPN 2023, the equivalent or an appropriate placement test score.</td>
<td>Conversation, reading, and grammar review toward building literacy skills. Opportunities for composition and oral communication for a variety of situations and topics. [TCCN: SPAN 2312.]</td>
</tr>
<tr>
<td>2333</td>
<td>Hispanic Literature in English Translation</td>
<td>(3-0) 3 hrs</td>
<td>SPN 2023 or the equivalent.</td>
<td>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.) [TCCN: ENGL 2331.]</td>
</tr>
<tr>
<td>2513</td>
<td>Spanish for Special Purposes</td>
<td>(3-1) 3 hrs</td>
<td>SPN 2023, the equivalent or an appropriate placement test score.</td>
<td>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.]</td>
</tr>
<tr>
<td>2523</td>
<td>Hispanic Culture and Communication</td>
<td>(3-1) 3 hrs</td>
<td>SPN 2023, the equivalent or an appropriate placement test score.</td>
<td>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.]</td>
</tr>
<tr>
<td>3013</td>
<td>Spanish Phonetics and Pronunciation</td>
<td>(3-1) 3 hrs</td>
<td>SPN 3063 or consent of instructor.</td>
<td>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.</td>
</tr>
<tr>
<td>3023</td>
<td>Creative Writing</td>
<td>(3-0) 3 hrs</td>
<td>SPN 2023 or the equivalent or consent of instructor.</td>
<td>Writing in various genres. Form, style and techniques of creative writing. May be repeated for credit when topics vary.</td>
</tr>
<tr>
<td>3033</td>
<td>Oral Communication Skills</td>
<td>(3-0) 3 hrs</td>
<td>SPN 2023 or the equivalent or consent of instructor.</td>
<td>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 score is less than 2+.</td>
</tr>
<tr>
<td>3043</td>
<td>Advanced Reading</td>
<td>(3-0) 3 hrs</td>
<td>SPN 3063 or consent of instructor.</td>
<td>Extensive reading practice, comprehension strategies, and vocabulary building with material from a variety of disciplines and different types of texts.</td>
</tr>
<tr>
<td>3063</td>
<td>Grammar and Composition</td>
<td>(3-0) 3 hrs</td>
<td>SPN 2023 or the equivalent.</td>
<td>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. Students may test out of this level through Credit by Examination.</td>
</tr>
</tbody>
</table>
3073  **Advanced Grammar and Composition**  
(3-0) 3 hours credit. Prerequisite: SPN 3063 or the equivalent.  
Extensive review of complex grammatical structures with vocabulary building. Further development of writing skills  
and style through activities directed at the superior level on the ACTFL-ETS proficiency scale. Consideration of  
usage and differences between written and spoken language. Students may not test out of this course through Credit  
by Examination.

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.

3343  **Hispanic Women’s Literature**  
(3-0) 3 hours credit. Prerequisite: SPN 3043 or consent of instructor.  
Readings in Spanish from women writers. Provides the opportunity to explore women’s literature from various  
national perspectives.

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. (Credit cannot be earned for both SPN 3413 and SPN 3313.)

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. (Credit cannot be earned for both SPN 3423 and SPN 3313.)

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. (Credit cannot be earned for both SPN 3463 and SPN 3323.)

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. (Credit cannot be earned for both SPN 3473 and SPN 3323.)

3493  **Mexican American Literature**  
(3-0) 3 hours credit. Prerequisite: SPN 2103 or 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.

3653 Contemporary Spain
(3-0) 3 hours credit. Prerequisite: SPN 3043.
Problems and conflicts determining the cultural development of contemporary Spain. Social, political, economic, and cultural characteristics as seen through intellectual currents, and the role of intellectual leaders in forming Spain’s cultural expression.

3663 Contemporary Latin America
(3-0) 3 hours credit. Prerequisite: SPN 3043.
Problems and conflicts determining the cultural development of contemporary Latin America. Ethnic, social, political, economic, and cultural characteristics. Intellectual currents and the role of intellectual leaders in forming the cultural expression of Latin America.

3673 Hispanic Cultural Systems
(3-0) 3 hours credit. Prerequisite: SPN 3043.
Aspects of everyday culture that affect interaction with native speakers of Spanish in the Hispanic world. Topics may include social norms, customs, language styles, or religion.

4033 Advanced Oral Communication Skills
(3-0) 3 hours credit. Prerequisite: SPN 3033 or a 2+ on the Oral Proficiency Interview Test.

4103 Composition Workshop
(3-0) 3 hours credit. Prerequisite: SPN 3063 or consent of instructor.
Principles and methods of clear, effective writing. Extensive practice in writing and rewriting, with particular attention to stylistics. Diagnostic grammar as needed, tailored to the individual or small group. May be repeated once for credit.

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, 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.

4213 Classic Spanish Literature
(3-0) 3 hours credit. Prerequisite: An upper-division course in literature taught in Spanish or consent of instructor.
An intensive study of the literature of Spain, from either the Medieval or Golden Age period. May be repeated for credit when topics vary.

4223 Twentieth-Century Spanish Literature
(3-0) 3 hours credit. Prerequisite: An upper-division course in literature taught in Spanish or consent of instructor.
Spanish literature from the Generation of 1898 to the present. May be repeated for credit when topics vary.
4233 Nineteenth-Century Literature
(3-0) 3 hours credit. Prerequisite: An upper-division course in literature taught in Spanish or consent of instructor. An intensive study of literature from its eighteenth-century ideological and vital roots through the Modernist movement. May be repeated for credit when topics vary.

4243 Twentieth-Century Latin American Literature
(3-0) 3 hours credit. Prerequisite: An upper-division course in literature taught in Spanish or consent of instructor. An intensive study of Latin American prose, poetry, and/or drama from Modernism to the present. May be repeated for credit when topics vary.

4323 Cervantes' Don Quijote
(3-0) 3 hours credit. Prerequisite: An upper-division course in literature taught in Spanish or consent of instructor. A reading of Don Quijote; analysis of the novel’s structure and themes with special consideration of its stylistic patterns, ideological framework, and symbolic meanings.

4483 National Literatures of Latin America
(3-0) 3 hours credit. Prerequisite: An upper-division course in literature taught in Spanish or consent of instructor. Representative works from the national literatures of Latin America. May be repeated for credit when topics vary.

4513 Hispanic Film
(3-0) 3 hours credit. Prerequisite: SPN 3043 or consent of instructor. Focus on representative Spanish, Latin American and/or U.S. Hispanic films and directors. Film as art and cultural expression. 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 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. No more than 6 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 Division Director. 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. CSH 3013 Theory and Practice of Comparative Literature (3 hours)
2. Three 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. [TCCN: ENGL 2332.]

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. [TCCN: ENGL 2333.]

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. [TCCN: SPAN 2324.]

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, but not more than 6 semester credit hours will apply to a bachelor’s degree. [TCCN: HUMA 2324.]

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. [TCCN: HUMA 1302.]
2313  **Introduction to Literary Studies**  
(3-0) 3 hours credit. Prerequisite: ENG 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).  
[TCCN: ENGL 2331.]

3013  **Theory and Practice of Comparative Literature**  
(3-0) 3 hours credit. Prerequisite: ENG 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: ENG 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.

A. 6 semester credit hours of language skill courses in the same language at the 2013 level or above:

- FL 2023  Culture and Communication in a Foreign Language  
  or  
- SPN 2523  Hispanic Culture and Communication

3 additional semester credit hours in the same language at the 2013 level or above

B. 12 additional semester credit hours of foreign languages courses selected from the following:

- FL 3003  Introduction to Translation  
- FL 3013  Translation for the Language Specialist  
- FL 4013  Cross-Cultural Communications and Foreign Languages  
- FL 4243  Foreign Language Instruction  
- LNG 3813  Introduction to Linguistics  
- LNG 3833  Sociology of Language

**COURSE DESCRIPTIONS**

**FOREIGN LANGUAGES**

(FL)

1034  **Beginning Language Study Abroad**  
4 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, Hebrew, Italian, Japanese, and Russian.
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.

Culture and Communication in a Foreign Language  
3 hours credit. Prerequisites: 2013 (in a foreign language such as French or Spanish), or the equivalent in the target language, or an appropriate placement test score. 
A brief overview of history, geography, worldview, and customs common in the target culture. Use of some target culture materials. Continued opportunity to develop oral and written communication skills in the language and to understand U.S. target group cross-cultural communication. May be repeated for credit when language varies. May be offered in Italian and Japanese.

Intermediate Language Study Abroad  
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. Linguistic and cultural immersion. May be repeated up to 6 semester credit hours in each language. Offered in Spanish, German, French, Hebrew, Italian, Japanese, and Russian.

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.

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.)

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.

Advanced Language Study Abroad  
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. 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.

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.

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: Completion of the Core Curriculum requirement in foreign language. 
A study of second-language-acquisition theories. Emphasis on instruction 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
- FRN 3013 French Phonetics and Pronunciation
- GER 4333 Studies in German Linguistics
- SPN 3013 Spanish Phonetics and Pronunciation
- SPN 3113 Linguistic Structures of Spanish
- SPN 4113 Topics in Spanish Linguistics
- SPN 4123 The Spanish of the Mexican American

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 Communicative Competence in a Multilingual Society
- ESL 3043 Psycholinguistic Concepts in Second-Language Acquisition
- FL 4013 Cross-Cultural Communication and Foreign Languages
- LNG 3833 Sociology of Language
- LNG 3843 Gender Issues in Language
- PSY 2583 Psychology of Language

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:

- COM 3083 Language and Communication Theory
- BBL 2003 Language, Culture, and Society
- BBL 4023 Foundations of Bilingual Studies
- BBL 4033 Assessing Language and Learning in Bicultural-Bilingual Contexts
- ESL 3033 Foundations in 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.

3833 Sociology of Language
(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 earned for both LNG 4013 and LNG 3913.)

Minor in Russian
All students pursuing the Minor in Russian must complete 18 semester credit hours.

A. 6 semester credit hours of required language skill courses:
   RUS 2013 Intermediate Russian I
   RUS 2023 Intermediate Russian II

B. 12 additional semester credit hours of Russian courses, 9 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, or an appropriate placement test score.
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, or an appropriate placement test score. 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, or an appropriate placement test score. 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.) [TCCN: ENGL 2331.]

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.

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
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, or the appropriate placement test score. 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, or the appropriate placement test score. 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, or the appropriate placement test score.  
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.) [TCCN: ENGL 2331.]

**COURSE DESCRIPTIONS**

**JAPANESE**

(JPN)

1014 Elementary Japanese I  
(3-2) 4 hours credit.  
Fundamentals of Japanese offering the opportunity to develop speaking, listening, reading, and writing skills. Read and write hiragana. 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, or the appropriate placement test score.  
Fundamentals of Japanese offering the opportunity to develop speaking, listening, reading, and writing skills. Read and write katakana. 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, or the appropriate placement test score.  
Continued opportunity to develop listening, speaking, reading, and writing skills. Read and write beginning kanji. Grammar review. Further study of Japanese culture. [TCCN: JAPN 2311.]

2023 Intermediate Japanese II  
(3-1) 3 hours credit. Prerequisite: JPN 2013, the equivalent, or the appropriate placement test score.  
Continued opportunity to develop skills in listening, reading, speaking, and writing. Read and write kanji. Study of Japanese culture. Grammar review. [TCCN: JAPN 2312.]

**COURSE DESCRIPTIONS**

**LATIN**

(LAT)

See LAT listings in the Division of English, Classics, Philosophy, and Communication.
DIVISION OF MUSIC

The Division 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 emphases in the Bachelor of Music program: music performance, composition, music marketing, or music studies. Within the Music Studies emphasis, students must select one of two concentrations: all-level instrumental or all-level choral. The division also offers a Minor in Music.

Students entering the Bachelor of Music program with a Music Studies emphasis may be required to satisfy additional requirements as prescribed by the Texas State Board for Educator Certification (SBEC) and are advised to consult the Undergraduate Certification Programs in Education brochure.

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 re-audition 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 emphasis, 130 in the Composition emphasis, 130 in the Music Marketing emphasis, and 136 in the Music Studies emphasis. 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 emphasis 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| Rhetoric (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
## Domain I: Mathematics and Science

**Mathematics** (3 semester credit hours)
Any three hours listed under this section in the list of core courses will satisfy this core requirement. However, if music students wish to meet SBEC teacher certification requirements, they may fulfill the mathematics requirement by successfully completing MAT 1023.

**Science** (6 semester credit hours)
Any six hours listed under this section in the list of core courses will satisfy this core requirement. However, if music students wish to meet SBEC teacher certification requirements, they may fulfill the natural sciences requirement and the Core Curriculum requirement by successfully completing ANT 2033 or 2043 and one science course with a lab.

## Domain II: Society and Culture

**United States History and Diversity** (6 semester credit hours)
Any six hours listed under this section in the list of core courses will satisfy this core requirement.

**Political Studies** (6 semester credit hours)
Any six hours listed under this section in the list of core courses will satisfy this core requirement.

**Social and Behavioral Sciences** (3 semester credit hours)
Any three hours listed under this section in the list of core courses will satisfy this core requirement. However, if music students wish to meet SBEC teacher certification requirements, they may fulfill the society and culture requirement by successfully completing one of the ANT, PSY, or SOC courses that fulfill this Core Curriculum requirement.

**Economics** (3 semester credit hours)
Any three hours listed under this section in the list of core courses will satisfy this core requirement.

## Domain III: Literature and the Arts

**Literature** (3 semester credit hours)
Any three hours listed under this section in the list of core courses will satisfy this core requirement. However, if music students wish to meet SBEC teacher certification requirements, they may fulfill the literature requirement by successfully completing ENG 2013, an English elective, and COM 2123.

**The Arts** (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.

## Domain IV: Interdisciplinary Studies

(3 semester credit hours)
Any three hours listed under this section in the list of core courses will satisfy this core requirement.
Music Degree Requirements

All candidates for the Bachelor of Music degree, regardless of emphasis, 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
- 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

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 emphasis are outlined in the Division of Music Student Handbook (available in the division 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 Division 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 Division of Music Student Handbook.

In addition, candidates for the Bachelor of Music degree must complete the course requirements for the emphasis they declare.

Music Performance Emphasis

All candidates for this emphasis must fulfill the Core Curriculum requirements (42 hours), the music degree requirements (36 hours), as well as the course requirements necessary for this emphasis (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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 1512</td>
<td>Music Performance-Private Instruction (one semester)</td>
</tr>
<tr>
<td>MUS 1542</td>
<td>Music Performance-Private Instruction I (one semester)</td>
</tr>
<tr>
<td>MUS 2542</td>
<td>Music Performance-Private Instruction II (two semesters)</td>
</tr>
<tr>
<td>MUS 3543</td>
<td>Music Performance-Private Instruction IV (two semesters)</td>
</tr>
<tr>
<td>MUS 4543</td>
<td>Music Performance-Private Instruction V (two semesters)</td>
</tr>
</tbody>
</table>

1. 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.
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\(^1\)
- MUS 1531  Class Voice

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 principals are required to complete 4 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

---

\(^1\) Students selecting keyboard as their principal instrument may not use MUS 1521 to fulfill the secondary instrument requirement.
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 Division 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 Emphasis**

All candidates for this emphasis must fulfill the Core Curriculum requirements (42 hours), the Music Degree Requirements (36 hours), as well as the course requirements necessary for this emphasis (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
   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 Synthesizers and Music

---

1. Students selecting keyboard as their principal instrument may not use MUS 1521 to fulfill the secondary instrument requirement.
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 emphasis must interview with the Composition Committee for approval to pursue the emphasis at the upper-division level.

G. MUS 4561 Senior Recital is required of all students in the Composition emphasis; 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 Emphasis**

All candidates for this emphasis must fulfill the Core Curriculum requirements (42 hours), the Music Degree Requirements (36 hours), as well as the course requirements necessary for this emphasis (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.

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
   MUS 1531 Class Voice

B. 6 additional required semester credit hours:

   MUS 3613 Music in Contemporary Life
   MUS 4803 Seminar in Music Marketing

---

1. Students selecting keyboard as their principal instrument may not use MUS 1521 to fulfill the secondary instrument requirement.
C. 24 semester credit hours of required support work:

- ACC 2003 Foundations of Accounting
- BLW 3013 Business Law
- ECO 2013 Introductory Macroeconomics
- MGT 3013 Introduction to Organization Theory, Behavior, and Management
- MKT 3013 Principles of Marketing
- MKT 3063 Persuasive Communication in Marketing
- MKT 4013 Marketing Management
- MUS 4933 Music Marketing Internship

D. 6 additional semester credit hours of music or music marketing selected from the following:

- MUS 3123 Introduction to Synthesizers and Music
- MUS 3153 Introduction to Audio Technology
- MUS 4953 Special Studies in Music (Music Marketing topic)
- MKT 3043 Advertising
- MKT 3113 Retailing

E. Students electing the Music Marketing emphasis must interview with the Music Marketing Committee for approval to pursue the emphasis at the upper-division level.

**Music Studies Emphasis**

All candidates for this emphasis must fulfill the Core Curriculum requirements (42 hours), the Music Degree Requirements (36 hours), as well as the course requirements necessary for this emphasis (52 hours).

A. All candidates for the Bachelor of Music with a Music Studies emphasis, regardless of concentration, 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 Undergraduate Certification Program in Education brochure

C. 3 semester credit hours in a state-mandated reading course; for specific required courses, consult the coordinator of music studies

---

1. May be fulfilled by successful completion of either ACC 2003 or 2013.
2. Must be fulfilled by successful completion of either ECO 2003, 2013, or 2023. Students selecting the Music Marketing emphasis 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.
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 Division of Music Student Handbook.

E. Students electing the Music Studies emphasis 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 emphasis 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 Division 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 Advanced Studies in Music Literature and Analysis (2 semesters)
   - MUS 3401 Brass Instruments
   - MUS 3431 Woodwind Instruments I
   - MUS 3441 Woodwind Instruments II
   - MUS 3471 String Instruments
   - MUS 3481 Percussion Instruments
   - MUS 4452 The Marching Band

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 3252 Advanced Studies in Music Literature and Analysis (2 semesters)
   - MUS 3453 Music Studies I
   - MUS 3463 Music Studies II
   - MUS 3501 Diction Survey

   1. Must be repeated to include topics Wind Literature I and Wind Literature II
   2. Students with a string instrument as their principal instrument should consult with the coordinator of music studies or the undergraduate advisor to determine the approved substitutions for these courses.
   3. Must be repeated to include topics Choral Literature I and Choral Literature 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 Class Guitar
MUS 2613 Intermediate Guitar
MUS 2663 History and Styles of Jazz
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 Synthesizers and Music
MUS 3153 Introduction to Audio Technology
MUS 3313 Microcomputer Applications in Music
MUS 3453 Music Studies I
MUS 3463 Music Studies II
MUS 3613 Music in Contemporary Life

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 less 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 three 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 twentieth-century materials. Should be taken concurrently with MUS 1132. [TCCN: MUSI 1217.]

1123 Aural Skills II Honors
(3-1) 3 hours credit. Prerequisite: 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. Prerequisite: 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**  
(1-0) 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**  
(2-0) 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**  
(1-1) 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**  
(2-0) 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 Division of Music. May be repeated for credit.
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.]

Aural Skills III Honors  
(3-1) 3 hours credit. Prerequisite: 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.

Aural Skills IV  
(2-1) 2 hours credit. Prerequisites: MUS 2102 and 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.]

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.]

Composition I  
2 hours credit. Prerequisites: MUS 1102, 1112, and consent of instructor. Private study of the fundamentals of composition through small forms. Seminar attendance is required. [TCCN: MUSI 1286.]

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.]

Basic Skills of Music III Honors  
(3-0) 3 hours credit. Prerequisite: 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 twentieth century music. Must be taken concurrently with MUS 2103.

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 twentieth-century music. Should be taken concurrently with MUS 2112. [TCCN: MUSI 2212.]

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.)

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.
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.

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. May be repeated for credit.

2542  **Music Performance–Private Instruction II**  
(2-0) 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.

2603  **Class Guitar**  
(3-0) 3 hours credit.  
An introductory course intended primarily for the nonmusic major. Emphasis will be on music in the first position  
(through the fourth fret) while students learn technical aspects as defined by the early nineteenth-century guitar  
masters.

2613  **Intermediate Guitar**  
(3-0) 3 hours credit. Prerequisite: MUS 2603 or the equivalent.  
Designed primarily for the nonmusic major. Continued study of rudimentary classical guitar repertoire and basic  
elements of classical guitar technique.

2623  **Basic Elements of Music for the Non-Music Major**  
(3-0) 3 hours credit.  
A study of the basic elements of music through the notation of pitch, rhythm, and meter in traditional musics.  
Emphasis is placed on the historical development of music notation and music theoretical systems and their  
applications to both classical and popular musics. [TCCN: MUSI 1301.]

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, 2162, and 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 Synthesizers and Music**  
(3-0) 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, 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 twentieth 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, 2162, 2252, and 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  **Introduction to Audio Technology**  
(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.

3162  **Composition II**  
(2-0) 2 hours credit. Prerequisites: MUS 2112, 2142, 2162, and 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.

3172  **Composition in Electronic Media**  
(2-0) 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 hour credit. Prerequisites: MUS 2162 and 2252, their equivalents, or consent of instructor.  
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.

1. Qualified students may fulfill the Aural Skills and Basic Skills prerequisites by successfully completing MUS 2103 and 2153.
3223  **Music in Civilization II**  
(3-0) 3 hours credit. Prerequisites: MUS 2162 and 2252, their equivalents, or consent of instructor.  
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; Advanced Analytical 
Techniques; Music Since 1950; and The Instrumental Concerto. 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.

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. (Formerly MUS 
3451. Credit cannot be earned for both MUS 3451 and MUS 3431.)

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. 
(Formerly MUS 3451. Credit cannot be earned for both MUS 3451 and MUS 3441.)

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.
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.

3501  **Diction Survey**  
(1-1) 1 hour credit.  
A survey of English and foreign language pronunciation as applied to performance.

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**  
(2-0) 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**  
(0-3) 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  **Music in Contemporary Life**  
(3-0) 3 hours credit.  
Designed to increase students’ awareness of the varied functions of music in society. Topics include film and television music, environmental music, the recording industry, the publishing industry, music in the schools, ceremonial music, and concert life.

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.

3791 **Opera Workshop**  
(0-3) 1 hour 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, 2162, and 2252.  
Private study in applied composition, with an emphasis on eighteenth- and twentieth-century contrapuntal techniques and procedures.

4142 **Composition III**  
2 hours credit. Prerequisites: MUS 3113 and 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 2252.  
A study of the repertoire, materials, and maneuvers used by marching bands. (Formerly MUS 4453. Credit cannot be earned for both MUS 4453 and MUS 4452.)
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 advances 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. (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.

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 
string instruments and voice. 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. (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 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. 
(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 emphasis; concurrent enrollment in MUS 4142 is required of students selecting the Composition 
emphasis. 
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. Prerequisites: Permission in writing (form available) of the instructor, the student’s advisor, the Division Director, 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. Prerequisite: MKT 3013, MUS 3613, MUS 4803, grade point average of 2.5 or higher, and permission in writing from the instructor and Division Director. 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.
DIVISION OF SOCIAL AND POLICY SCIENCES

The Division of Social and Policy Sciences offers Bachelor of Arts degrees in Geography, Political Science, and Sociology. The division also offers Minors in Geography, Political Science, Sociology, International Studies, and Aerospace Studies.

At least 30 semester credit hours of coursework are required to fulfill a social and policy sciences major. The 30-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 social and policy sciences 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 Division of Social and Policy Sciences 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. Placement is arranged by the internship coordinator of the Division of Social and Policy Sciences. Supervision and grading of the internship experience are normally done by division faculty members. Students majoring in non-social 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.

DIVISION HONORS

The Division of Social and Policy Sciences, through its Division 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 their major at UTSA. 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 divisional faculty member. Students interested in this program should contact their faculty advisors 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 5-10 of this catalog.
## Core Curriculum Requirements

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric** (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
  ENG 1013 Freshman Composition  
  ENG 1023 Discourse across the Disciplines |
| **Domain I: Mathematics and Science** |  
**Mathematics** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
**Science** (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. |
| **Domain II: Society and Culture** |  
**United States History and Diversity** (6 semester credit hours)  
Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
**Political Studies** (6 semester credit hours)  
Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
**Social and Behavioral Sciences** (3 semester credit hours)  
GRG 2623 Human Geography  
**Economics** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement. |
| **Domain III: Literature and the Arts** |  
**Literature** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
**The Arts** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement. |
| **Domain IV: Interdisciplinary Studies** | (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

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. 39 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 undergraduate advisor in the Division of Social and Policy Sciences.
COURSE DESCRIPTIONS

GEOGRAPHY

(GRG)

1001 Freshman Topics in Geography
(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 Geography. Critical study of topics in geography. 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 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 man. Topics include landforms, climate, natural resources, population, human behavior in spatial context, economic growth, and urbanization. [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, urban growth, cultural institutions, and political structure. Regions include North America, Latin America, Europe, Middle East/North Africa, Sub-Saharan Africa, South Asia, East Asia, the former USSR, 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. [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.]

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 urban, political, ethnic, and economic forces shaping the post-Cold War 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 non-metropolitan hinterland of San Antonio.

3213  Cultural Geography  
(3-0) 3 hours credit.  
Study of human culture hearths, the distribution of languages and religion, environmental perception, environmental determinism, and human settlement patterns.

3313  Cartography and Geographic Information Systems  
(3-0) 3 hours credit.  
The design, construction, and reproduction of maps; cartographic theory, computer cartography, and an introduction to Geographic Information Systems.

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.

3333  Advanced Geographic Information Systems  
(3-0) 3 hours credit.  
The manipulation and cartographic display of large data sets, using personal computer software. Trains students in the use of one or more contemporary computer programs for the transformation and mapping of geographic information.

3513  Urban Geography  
(3-0) 3 hours credit.  
Topics include the relationship between the physical environment and urbanization; the origin and evolution of cities; urban hierarchies; models of internal structure; and land uses in American, Third World, and other urban centers.

3523  Introduction to Urban Planning  
(3-0) 3 hours credit.  
An introduction to the nature, use, purpose, and preparation of a master plan for the future physical growth and development of a community. The course focuses on the planning process by which a city prepares and implements its master plan. (Formerly URB 3723. Credit cannot be earned for both GRG 3523 and URB 3723.)

3533  Geography of Economic Activity  
(3-0) 3 hours credit.  
Analysis of the location of economic activities at local, regional, and national levels. Case studies of agricultural, industrial, retail, and service locations are analyzed through relevant theories and models.

3613  Conservation of Resources  
(3-0) 3 hours credit.  
A survey of world resources, environmental policies, and global conservative strategies. Topics include agriculture, water resources, air pollution, endangered species, wildlife preservation, habitat conservation, scenic and recreational resources, and other selected components of the biosphere and lithosphere.
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. Of particular importance is the question of whether men and women differ in their perceptions of physical, social, and built environments, and the consequent policy expressions in political and built environments.

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.

4913  **Independent Study**  
3 hours credit. Prerequisites: Permission in writing (form available) of the instructor, the student’s advisor, the Division Director, 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. 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. Prerequisites: Enrollment limited to candidates for Honors in Geography 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.

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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhetoric (6 semester credit hours)</td>
<td>All students must take the following six hours to meet this core requirement:</td>
</tr>
<tr>
<td></td>
<td>ENG 1013 Freshman Composition</td>
</tr>
<tr>
<td></td>
<td>ENG 1023 Discourse across the Disciplines</td>
</tr>
<tr>
<td>Domain I: Mathematics and Science</td>
<td>Mathematics (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>Science (6 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Three hours from Level One and three hours from Level Two will satisfy this core requirement.</td>
</tr>
<tr>
<td>Domain II: Society and Culture</td>
<td>United States History and Diversity (6 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any six hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>Political Studies (6 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any six hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>Social and Behavioral Sciences (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td>Economics (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>
Degree Requirements

A. 33 semester credit hours in the major, 21 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. POL 2703 Scope and Methods of Political Science

3. 18 semester credit hours of political science electives, 15 of which must be at the upper-division level, with at least 3 hours in each of the following areas:

   - American politics
   - Political theory
   - International relations
   - Public administration or public law
   - Interdisciplinary courses

   With advisor approval, a maximum of 6 semester credit hours may be applied to the major from the following disciplines: economics, history, sociology, and social science.

4. 3 semester credit hours of social science courses

5. 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. 39 semester credit hours of electives
Minor in Political Science

All students pursuing the Minor in Political Science must complete 18 semester credit hours, 12 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

B. 12 upper-division semester credit hours. Students must take at least one upper-division class in three of the six subfields:

**American Politics**

   - POL 3083  Ethnic Politics in the United States
   - POL 3093  Mexican American Politics
   - POL 3233  Political Campaigns and Elections
   - POL 3243  Mass Media and Public Opinion
   - POL 3283  The American Presidency
   - POL 3313  The American Federal System
   - POL 3363  Political Parties and Interest Groups
   - POL 3373  The Legislative Process
   - POL 3413  The Politics of Urban Development
   - POL 3723  Ethics in Government

**Public Administration**

   - 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 3713  Comparative Systems of Public Administration
   - POL 3733  Urban Human Resources Policy
   - POL 4323  Administrative Law

**Public Law**

   - POL 3223  Judicial Politics
   - POL 3323  Constitutional Law
   - POL 4153  Seminar in Jurisprudence
   - POL 4323  Administrative Law

**International Politics**

   - POL 3483  Politics of the International Economy
   - POL 3503  American Foreign Policy since World War II
   - POL 3513  International Organizations
   - POL 3523  Force in International Politics
   - POL 3533  Japan in World Politics
   - POL 3543  Russian Foreign Policy
Comparative Politics

POL 3343 Communism and Post-Communism
POL 3353 Comparative Political Executives
POL 3393 Latin American Politics
POL 3403 European Politics
POL 3423 Politics in Russia and the Post-Soviet States
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

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 3333 Political Power

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 undergraduate advisor in the Division of Social and Policy Sciences.

COURSE DESCRIPTIONS

POLITICAL SCIENCE

(POL)

1001 Freshman Topics in Political Science
(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 Political Science. Critical study of topics in political science. 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 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. Prerequisite: POL 1013 or consent of instructor.
Topics may include discussions of the Texas and U.S. Constitutions; the role of state and federal systems; the diverse demographic, economic, and cultural bases; elections, interest groups, and elites; legislative, executive, judicial, urban, and county politics. [TCCN: GOVT 2306.]
1213  Topics in Texas and American Politics  
(3-0) 3 hours credit. Prerequisite: POL 1013 or consent of instructor. 
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 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.

2083  Current Issues in World Politics  
(3-0) 3 hours credit. 
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.

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 role of law in society. Topics examined may include natural law, legal realism, and constitutional, statutory, common, civil, socialist, and administrative law. The structure and functions of the judiciary, police, and legal profession.

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.  
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.)

3023  Civil Liberties in American Law and Practice  
(3-0) 3 hours credit. Prerequisite: POL 1013 or consent of instructor.  
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.)

3083  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, neo-conservatism, 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 twentieth-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 nineteenth 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 nineteenth 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.

3173 Women in Western Political 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. Introduces students to classical discussions within the Western political theory tradition through an inquiry into their conceptions of women. The course will consider conceptions of women, the family, and the domestic sphere as they have come to us through a male-centered philosophical tradition.

3183 Gender and Power in American Politics
(3-0) 3 hours credit. Prerequisite: POL 1013.
A focus on the role of women relative to men in the dynamic evolution of American politics. Topics may include the fight for civil rights and liberties; the media’s portrayal of women in politics; the impact of women in the executive, legislative and judicial branches of government; women’s presence in the bureaucracy and interest groups; the dilemmas facing women as political candidates; women as a voting block in electoral politics; and women in the military/theories of gender and war. Overall, the course will consider the power of women and assess their position in American politics during the 20th century.
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 a 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.

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.

3233  **Political Campaigns and Elections**  
(3-0) 3 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.

3243  **Mass Media and Public Opinion**  
(3-0) 3 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 3253, 3263, and 3273. Credit cannot be earned for both POL 3243 and either POL 3253, 3263, or 3273.)

3253  **Participation and American National Elections**  
(3-0) 3 hours credit.  
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. (Formerly POL 3303. Credit cannot be earned for both POL 3283 and POL 3303.)

3293  **Political Movements**  
(3-0) 3 hours credit.  
Examines the history, political dynamics, and social basis of mass political movements as vehicles for social reform. Selected examples may include the civil rights, labor, women’s, abolitionist, temperance, antiabortion, old age pension, and antiwar movements.
3313 **The American Federal System**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
The political theory of federalism; the constitutional provisions; interstate coordination of policies; local-state-federal relations; the political role of private and public interest within the federal framework.

3323 **Constitutional Law**  
(3-0) 3 hours credit. Prerequisites: POL 2023, 2623; HIS 3093; or consent of instructor.  
An examination of major constitutional issues, past and present, through the intensive study of leading cases. Recommended for pre-law students.

3333 **Political Power**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
A theoretical and empirical analysis of power in the political setting. Group, elite, organizational, and structural approaches will be considered. Case studies of the translation of economic and social resources into political power.

3343 **Communism and Post-Communism**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
The theory, historical origins, development, and decline of Communism as a system of rule, and the problems of creating new political and economic systems in the place of the former Communist states. Examples may be drawn from Eastern Europe, Asia, and Latin America. (Formerly POL 3383. Credit cannot be earned for both POL 3343 and POL 3383.)

3353 **Comparative Political Executives**  
(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 function of political parties in the political process; interest groups and their function as private governments and role in shaping 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 **Politics in Russia and the Post-Soviet States**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
Politics and government in Russia and other states of the former Soviet Union. Economic and social problems and policies. The legacy of Communism.

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: POL 3393, POL 3453, SSC 3533, 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 **Politics of the International Economy**  
(3-0) 3 hours credit. Prerequisite: POL 1013.  
Demonstrates the linkage between politics and economics. Students will be introduced to the current international economic system as well as money and trade. Foreign aid and tariff and nontariff barriers may also be analyzed.

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.

3533  Japan in World Politics
(3-0) 3 hours credit. Prerequisite: POL 1013.
An examination of Japan’s emerging global role. Topics may include Japan’s domestic, regional, and international
politics, as well as the economy, foreign aid, and transfer of technology, investment, culture, and management
techniques.

3543  Russian Foreign Policy
(3-0) 3 hours credit. Prerequisite: POL 1013.
An examination of the theory and practice of Russian involvement in the world. Topics may include the legacy of the
Russian Empire and the former Soviet Union, institutions involved in foreign policy-making, structure of foreign aid
and trade, and specific policies toward the world’s major regions.

3553  Social Policy in Modern Welfare States
(3-0) 3 hours credit.
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.

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.
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.

3713 Comparative Systems of Public Administration
(3-0) 3 hours credit. Prerequisite: POL 1013.
Administrative goals, structures, processes, and behavior in comparative perspective. Bureaucracies in Western democratic, Communist, and developing political systems will be examined.

3723 Ethics in Government
(3-0) 3 hours credit. Prerequisite: POL 1013.
The philosophical, legal, and practical problems of establishing accountability in government and promoting ethical standards among government officials.

3733 Urban Human Resources Policy
(3-0) 3 hours credit. Prerequisite: POL 1013.
Explores the basic relationships between government, citizens, and those forces that affect the dispensation of government largesse. The personnel programs and policies of municipal government and the ability of public agencies to manage human resources and other social services programs will be examined in detail. (Formerly URB 3013. Credit cannot be earned for both POL 3733 and URB 3013.)

4103 Latin America and the World
(3-0) 3 hours credit. Prerequisite: POL 3393, 3453, 3473, HIS 2533, SSC 3533, 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.

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 2023, 2513, 2623, or consent of instructor.
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.
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). Completion of POL 2703 with a “C” or better is recommended.
Independent Study
3 hours credit. Prerequisites: Permission in writing (form available) of the instructor, the student’s advisor, the Division Director, 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.

Internship in Political Science
3 or 6 hours credit. Prerequisite: Consent of internship coordinator.
Supervised experience relevant to political science within selected community organizations. A maximum of 6 semester credit hours may be earned through the internship.

Special Studies in Political 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.

Seminar in Political Science
(3-0) 3 hours credit. Prerequisite: 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.

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 approval by the honors program coordinator.
Supervised research and preparation of an honors thesis. May be repeated once with advisor’s approval.

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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| Rhetoric (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
## 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 of required courses:

   6 semester credit hours:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 1013</td>
<td>Introduction to the Study of Society</td>
</tr>
</tbody>
</table>
   | SOC 3343 | Classical Sociological Theory        
   |          | or                                   |
   | SOC 3353 | Contemporary Sociological Theory     |

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 1013</td>
<td>Introduction to the Study of Society</td>
</tr>
</tbody>
</table>
   | SOC 3343 | Classical Sociological Theory        
   |          | or                                   |
   | SOC 3353 | Contemporary Sociological Theory     |

---

**Domain I: Mathematics and Science**

- **Mathematics** (3 semester credit hours)
  
  Any three hours listed under this section in the list of core courses will satisfy this core requirement.

- **Science** (6 semester credit hours)
  
  Three hours from Level One and three hours from Level Two will satisfy this core requirement.

**Domain II: Society and Culture**

- **United States History and Diversity** (6 semester credit hours)
  
  Any six hours listed under this section in the list of core courses will satisfy this core requirement.

- **Political Studies** (6 semester credit hours)
  
  Any six hours listed under this section in the list of core courses will satisfy this core requirement.

- **Social and Behavioral Sciences** (3 semester credit hours)
  
  SOC 1013 Introduction to the Study of Society

- **Economics** (3 semester credit hours)
  
  Any three hours listed under this section in the list of core courses will satisfy this core requirement.

**Domain III: Literature and the Arts**

- **Literature** (3 semester credit hours)
  
  Any three hours listed under this section in the list of core courses will satisfy this core requirement.

- **The Arts** (3 semester credit hours)
  
  Any three hours listed under this section in the list of core courses will satisfy this core requirement.

**Domain IV: Interdisciplinary Studies**

(3 semester credit hours)

Any three hours listed under this section in the list of core courses will satisfy this core requirement.
6 semester credit hours of methods courses:

SOC 3313 Conceptualization and Measurement in Sociology
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

2. 18 additional semester credit hours of sociology electives as approved by the student’s advisor. To encourage students to develop specific interest areas, 6 hours may be selected from courses in the following areas:

- Crime and deviance
- Demography
- Gerontology and/or medical sociology
- Race/ethnic relations
- Social stratification
- Urban studies
- Women’s and/or family studies
- Work and occupations
- Culture and mass media

B. 6 semester credit hours of support work in the social sciences outside the major, chosen with the consent of the advisor

C. 39 semester credit hours of electives

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 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 undergraduate advisor in the Division of Social and Policy Sciences.
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. 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 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 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.]

2053  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. Topics may include dating, marital roles, divorce, child-raising,
and alternative life styles. [TCCN: SOCI 2301.]

3003  Sociological Foundations
(3-0) 3 hours credit. Prerequisite: SOC 1013.
A seminar for new sociology majors to orient them to basic theoretical, methodological, and ethical issues in
sociology. Topics considered may also include the role of theory in sociology and 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. Prerequisite: SOC 1013.
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. Prerequisite: SOC 1013.
Development of modern world cities, the ecology of cities, the organization of cities, major social problems, and the
social psychology of urban life. (Formerly SOC 2023. Credit cannot be earned for both SOC 3023 and SOC 2023.)

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. (Formerly SOC 2033. Credit cannot be earned for both SOC 3033 and
SOC 2033.)
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. (Formerly SOC 2063. Credit cannot be earned for both SOC 3043 and SOC 2063.)

3053 Deviance and Conformity
(3-0) 3 hours credit.
Consideration of sociological and social-psychological factors associated with compliant and deviant behavior; the links between deviance and strategies for social control.

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 and Adjustment
(3-0) 3 hours credit. Prerequisite: SOC 1013.
Geographic movement of populations, ties to economic, physical, ideological, and social features, and resultant problems of adjustment. Historical as well as contemporary examples will be examined. Attention will be given to both legal and illegal immigration.

3083 Social Change
(3-0) 3 hours credit. Prerequisite: SOC 1013.
Principal models and theories of social transformation applied to examples of societal change.

3093 Religion and Society
(3-0) 3 hours credit. Prerequisite: SOC 1013.
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 emphasis on forms and consequences of intergroup relations, social movements, and related social changes.

3173 Economy and Society
(3-0) 3 hours credit. Prerequisite: SOC 1013.
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. Prerequisite: SOC 1013.  
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. Prerequisite: SOC 1013.  
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.

3243  Applied Community Studies  
(3-0) 3 hours credit. Prerequisite: SOC 1013.  
An examination of theories, methods, and techniques of fieldwork. The course will consider research in organizations, communities, and other settings, and ethical problems involved in such research. (Formerly POL 4203. Credit cannot be earned for both SOC 3243 and SOC 4203.)

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.

3283  Poverty  
(3-0) 3 hours credit. Prerequisite: SOC 1013.  
The causes and consequences of poverty in the United States and selected other societies. An examination of social programs designed to combat poverty.

3293  Sex Roles  
(3-0) 3 hours credit. Prerequisite: SOC 1013.  
The nature of sex roles in our own and other societies. Consideration of how people learn sex roles and the outcomes of this learning for individuals, families, and societies. Alternatives to conventional sex 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, crosstabulation, 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 SSC 3023. Credit cannot be earned for both SOC 3323 and SSC 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 nineteenth and early twentieth 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 3333.
An examination of current trends in sociological theory: contemporary functionalism, evolutionism, exchange theory, radical criticism, phenomenology and symbolic interactionism, and formal theory construction. (Formerly SOC 3183. Credit cannot be earned for SOC 3353 and SOC 3183.)

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.

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.

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.

4173 Comparative Family Structures
(3-0) 3 hours credit. Prerequisite: SOC 1013.
A review of research comparing major conventional and alternative family structures in preindustrial and industrial societies.
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.

4911,3  Independent Study  
1 or 3 hours credit. Prerequisites: Permission in writing (form available) from the instructor, the student’s advisor, the Division Director, 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.

4993  Honors Thesis  
3 hours credit. Prerequisite: Enrollment limited to candidates for Honors in Sociology 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.

COURSE DESCRIPTIONS
SOCIAL SCIENCE
(SSC)

3103  Major Theories of the Social Sciences  
(3-0) 3 hours credit.  
A survey of major paradigms and theories in nineteenth- and twentieth-century social science. Particular attention is paid to the origin of distinctions among the social sciences and to competing visions of the connections between them.

3113  The Contemporary City  
(3-0) 3 hours credit.  
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.
3123  **Urban Environmental Values**  
(3-0) 3 hours credit.  
An interdisciplinary inquiry into how environmental perceptions are formed. The influence of human values on the quality of both the natural and the built environments will be explored in detail. Special emphasis will be given to a comparative analysis of sometimes conflicting values represented by differing cultures, disciplines, and frames of reference and the role they play in the formulation of public policy.

3153  **Women in American Society**  
(3-0) 3 hours credit.  
Examines aspects of women’s experience in contemporary American society. Topics may include labor-force participation and economic decision making, political and religious status, gender role socialization, family organization, and the feminist and antifeminist movements. When possible, cross-cultural and historical comparisons will be introduced. Topics and approaches will vary.

3203  **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.

3253  **Race, Ethnicity, and Public Policy**  
(3-0) 3 hours credit.  
An examination of the historical and societal causes of economic deprivation among American Indians, Blacks, and Hispanics, with special attention on social, political, and economic strategies for the elimination of minority poverty in the United States.

3303  **Economy and Polity**  
(3-0) 3 hours credit.  
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 ethical and legal impact of business practices, normative implications of the interaction of modern government and economic activity, and the impact of markets on concepts of public and private life.

3533  **Inter-American Relations**  
(3-0) 3 hours credit.  
The development of political, economic, and cultural relations among nations of the Americas. (Formerly HIS 3533. Credit cannot be earned for both SSC 3533 and HIS 3533.)

4223  **Research Applications in the Social Sciences**  
(3-0) 3 hours credit. Prerequisite: CRJ 3013, POL 2703, SOC 3313, or the equivalent.  
Provides the opportunity to conduct research on issues relevant to the social and policy sciences.

4233  **Geographic Information Systems in the Social Sciences**  
(3-0) 3 hours credit.  
This course studies the management, analysis, and cartographic display of spatial data in the social sciences. The course also offers students training in the use of contemporary GIS computer software.

4343  **Transitions to Democracy**  
(3-0) 3 hours credit.  
An empirical and theoretical analysis of transitions from authoritarian to democratic political systems. Topics will include political order reform and change. Specific examples may be drawn from Africa, Asia, Latin America, Western Europe, or North America.
4353  **Leadership and Elites**  
(3-0) 3 hours credit.  
A survey of the major theoretical and empirical approaches to the study of elites and leadership. Political, sociological, psychological, and historical perspectives are examined. (Formerly POL 4353. Credit cannot be earned for both SSC 4353 and POL 4353.)

4373  **Program Evaluation**  
(3-0) 3 hours credit. Prerequisite: CRJ 3013, POL 2703, SOC 3313, the equivalent, or consent of instructor. Theoretical and applied perspectives on the evaluation of social change programs. Focus on the problems involved in designing, implementing, and evaluating community-based intervention.

4953  **Special Studies in Social Sciences**  
(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  **Senior Seminar in Social Sciences**  
(3-0) 3 hours credit. Prerequisite: 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 one of the social sciences.

**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 21 semester credit hours.

A.  **INS 2403 Introduction to International Study**

B.  12 semester credit hours selected in the following manner:

1.  3 semester credit hours of history or geography courses selected from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRG 1023</td>
<td>World Regional Geography</td>
</tr>
<tr>
<td>GRG 3613</td>
<td>Conservation of Resources</td>
</tr>
<tr>
<td>GRG 3633</td>
<td>Geography of Development</td>
</tr>
<tr>
<td>HIS 3283</td>
<td>Twentieth-Century Europe</td>
</tr>
<tr>
<td>HIS 3303</td>
<td>History of Mexico</td>
</tr>
<tr>
<td>HIS 3343</td>
<td>Modern Central America and the Caribbean</td>
</tr>
<tr>
<td>HIS 3353</td>
<td>Latin America since Independence</td>
</tr>
<tr>
<td>HIS 3373</td>
<td>Revolution in Latin America</td>
</tr>
<tr>
<td>HIS 3523</td>
<td>European Cultural History</td>
</tr>
<tr>
<td>HIS 3643</td>
<td>Modern Spain</td>
</tr>
<tr>
<td>HIS 3753</td>
<td>The Soviet Union and After</td>
</tr>
<tr>
<td>HIS 3823</td>
<td>History of American Foreign Policy</td>
</tr>
</tbody>
</table>

2.  3 semester credit hours of economics, finance, or marketing selected from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 3193</td>
<td>The International Economy</td>
</tr>
<tr>
<td>ECO 4303</td>
<td>Economic Problems of Developing Countries</td>
</tr>
</tbody>
</table>
FIN 4613 Introduction to International Finance
MGT 4073 International Management
MKT 4073 International Marketing

3. 3 semester credit hours of humanities selected from the following:

CSH 1203 Introduction to Hispanic Cultures
CSH 1213 Topics in World Cultures
FRN 3433 French Civilization
FRN 3613 Contemporary French Culture and Society
GER 4213 German Studies: Culture
HUM 2093 World Religions
HUM 3623 Topics in National Cultures and Civilizations
PHI 3073 Asian Philosophy
SPN 3613 Spanish Culture and Civilization
SPN 3623 Latin American Culture and Civilization
SPN 3653 Contemporary Spain
SPN 3663 Contemporary Latin America
SPN 3673 Hispanic Cultural Systems

4. 3 semester credit hours of social sciences selected from the following:

ANT 3363 Indians of Mesoamerica
ANT 4263 Social and Cultural Change
CRJ 4733 Intelligence Programs and National Security
INS 4953 Special Studies in International Studies
POL 2603 International Politics
POL 2633 Comparative Politics
POL 3393 Latin American Politics
POL 3403 European Politics
POL 3423 Politics in Russia and the Post-Soviet States
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 Politics of the International 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
PSY 3053 Cross-Cultural Psychology
SSC 3533 Inter-American Relations
SSC 4343 Transitions to Democracy

C. 6 additional semester credit hours, selected from any two of the sections from B.1 through B.4

D. Four 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 undergraduate advisor in the Division of Social and Policy Sciences.
### COURSE DESCRIPTIONS
#### INTERNATIONAL STUDIES (INS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2403</td>
<td>Introduction to International Study</td>
<td>3 hours</td>
<td>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.)</td>
</tr>
<tr>
<td>4913</td>
<td>Independent Study</td>
<td>3 hours</td>
<td>Prerequisites: Permission in writing (form available) from the instructor, the student’s advisor, the 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.</td>
</tr>
<tr>
<td>4953</td>
<td>Special Studies in International Studies</td>
<td>3 hours</td>
<td>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.)</td>
</tr>
</tbody>
</table>
DIVISION OF VISUAL ARTS

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 specialization in one of the following areas: 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 with upper-division art courses on their transcripts should present a portfolio of work to the advisor of record for art programs 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.

Applicants seeking a program of study with emphasis on art history and criticism and preparation for possible graduate work in art history should refer to the Bachelor of Arts degree in Humanities.

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 Undergraduate Certification Programs in Education brochure for information. Undergraduates seeking elementary teacher certification must complete the interdisciplinary studies degree.

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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rhetoric</strong> (6 semester credit hours)</td>
<td>All students must take the following six hours to meet this core requirement:</td>
</tr>
<tr>
<td></td>
<td>ENG 1013 Freshman Composition</td>
</tr>
<tr>
<td></td>
<td>ENG 1023 Discourse across the Disciplines</td>
</tr>
<tr>
<td><strong>Domain I: Mathematics and Science</strong></td>
<td><strong>Mathematics</strong> (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td></td>
<td><strong>Science</strong> (6 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Three hours from Level One and three hours from Level Two will satisfy this core requirement.</td>
</tr>
</tbody>
</table>
Major Requirements

A. 39 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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1003</td>
<td>Design: Two Dimensional</td>
</tr>
<tr>
<td>ART 1013</td>
<td>Design: Three Dimensional</td>
</tr>
<tr>
<td>AHC 1113</td>
<td>Survey of Art and Architecture from Prehistoric Times to 1350</td>
</tr>
<tr>
<td>AHC 1123</td>
<td>Survey of Art and Architecture in Europe and the New World from 1350 to 1730</td>
</tr>
<tr>
<td>AHC 1133</td>
<td>Survey of Modern Art</td>
</tr>
<tr>
<td>ART 1213</td>
<td>Drawing I</td>
</tr>
<tr>
<td>ART 1223</td>
<td>Drawing II</td>
</tr>
<tr>
<td>ART 2113</td>
<td>Painting: Basic</td>
</tr>
<tr>
<td>ART 2213</td>
<td>Drawing: Figure</td>
</tr>
<tr>
<td>ART 2413</td>
<td>Printmaking: Basic</td>
</tr>
<tr>
<td>ART 2513</td>
<td>Photography: Basic</td>
</tr>
<tr>
<td>ART 2613</td>
<td>Sculpture: Basic</td>
</tr>
<tr>
<td>ART 2713</td>
<td>Ceramics: Basic</td>
</tr>
</tbody>
</table>
B. 21 semester credit hours of upper-division art courses:

   ART  3033  Contemporary Studio
   ART  4983  Senior Seminar and Exhibition
   15 semester credit hours in one of the following areas: ceramics, drawing, painting, photography, printmaking, or sculpture

C. 9 additional semester credit hours of art history and criticism courses:

   AHC  4113  Contemporary Art
   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 advisor of record for art programs.

D. 18 additional semester credit hours of art course electives are required, at least 9 of which must be upper-division

**COURSE DESCRIPTIONS**

**ART**

**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.]

**1153**  **Painting for Non-Art Majors**  
(0-6) 3 hours credit.  
An introduction to the fundamentals of painting. May not be applied to a major in art. [TCCN: ARTS 1325.]

**1163**  **Drawing for Non-Art Majors**  
(0-6) 3 hours credit.  
An introduction to the fundamentals of drawing. May not be applied to a major in art. [TCCN: ARTS 1325.]

**1173**  **Photography for Non-Art Majors**  
(0-6) 3 hours credit.  
Techniques and basic methods of creative photography. Students are expected to provide their own adjustable 35mm cameras. May not be applied to a major in art. [TCCN: ARTS 2356.]

**1213**  **Drawing I**  
(0-6) 3 hours credit.  
Emphasis on observation and development of perceptual skills as they relate to drawing; includes systems of perspective. [TCCN: ARTS 1316.]
1223  **Drawing II**  
(0-6) 3 hours credit. Prerequisite: ART 1213.  
Emphasis on observation and opportunities for development of perceptual skills and conceptual principles in drawing, through various approaches and media. [TCCN: ARTS 1317.]

2113  **Painting: Basic**  
(0-6) 3 hours credit. Prerequisites: ART 1003, 1013, 1213, and 1223.  
Instruction in basic painting concepts, skills, and materials. [TCCN: ARTS 2316.]

2213  **Drawing: Figure**  
(0-6) 3 hours credit. Prerequisites: ART 1213 and 1223.  
Study of the human figure and its anatomical and structural dynamics. May be repeated for credit. [TCCN: ARTS 2323.]

2313  **Digital Imaging: Basic**  
(0-6) 3 hours credit.  
Introduction to the fundamentals of 2D image creation and manipulation using Adobe Photoshop and Fractal Design Painter. Students use software as a tool for making art that can be executed 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, 1013, 1213, and 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, 1013, and 1213.  
Instruction in basic sculptural concepts and materials. [TCCN: ARTS 2326.]

2713  **Ceramics: Basic**  
(0-6) 3 hours credit. Prerequisites: ART 1003, 1013, and 1213.  
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 any three 2000-level art courses and any two art history and criticism 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. candidates.

3113  **Painting: Color, Form, and Composition**  
(0-6) 3 hours credit. Prerequisite: ART 2113.  
Continued study of the methods and materials of painting with an emphasis on color, form, and composition. May be repeated for credit.
4133  Painting: Advanced
(0-6) 3 hours credit. Prerequisite: ART 3113.
Concentration on the development of a personal vision and an individual approach with consideration of historical and contemporary issues in painting. Occasionally this course may focus on a special topic such as the figure, abstraction, and landscape. May be repeated for credit.

4233  Drawing
(0-6) 3 hours credit. Prerequisites: ART 2213 and upper-division standing.
An emphasis on the development of a personal vision and individual approach to the use of the medium. May be repeated for credit.

4333  Digital Imaging: Advanced
(0-6) 3 hours credit. Prerequisite: ART 2313.
Fundamentals of 3 dimensional modeling and basic animation and its integration with advanced concepts in 2 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 and upper-division standing.
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 and upper-division standing.
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 and upper-division standing.
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 and upper-division standing.
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. Prerequisites: Completion of the lower-division studio art foundation courses and consent of instructor. 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. May be repeated once for credit.

4913  Independent Study
3 hours credit. Prerequisites: Permission in writing (form available) of the instructor, the student's advisor, the Division Director, 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 the 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, AHC 4113, and 12 upper-division semester credit hours in area of specialization.
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. (Formerly ART 4903 and ART 4933. Students who completed both ART 4903 and ART 4933 cannot earn credit for ART 4983.)

**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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHC 1113</td>
<td>Survey of Art and Architecture from Prehistoric Times to 1350</td>
</tr>
<tr>
<td>AHC 1123</td>
<td>Survey of Art and Architecture in Europe and the New World from 1350 to 1750</td>
</tr>
<tr>
<td>AHC 1133</td>
<td>Survey of Modern Art</td>
</tr>
</tbody>
</table>

B. 12 semester credit hours selected from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHC 3123</td>
<td>Northern European Art: Fifteenth and Sixteenth Centuries</td>
</tr>
<tr>
<td>AHC 3423</td>
<td>Pre-Columbian Art and Architecture of Mesoamerica</td>
</tr>
<tr>
<td>AHC 4113</td>
<td>Contemporary Art</td>
</tr>
<tr>
<td>AHC 4333</td>
<td>Topics in Art History and Criticism</td>
</tr>
<tr>
<td>AHC 4933</td>
<td>Art Gallery and Museum Internship</td>
</tr>
</tbody>
</table>

**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). [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 period of the Aztecs and Incas in the New World and the Renaissance in Europe 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. Prerequisite: 3 semester credit hours of lower-division art history and criticism or completion of the Core Curriculum requirement in literature.
A study of the fifteenth- and sixteenth-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. Prerequisite: 3 semester credit hours of lower-division art history and criticism or completion of the Core Curriculum requirement in literature.
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 and criticism or completion of the Core Curriculum requirement in literature.
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 and criticism or completion of the Core Curriculum requirement in literature.
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: Consent of instructor.
Supervised experience related to preparation and installation of exhibitions in gallery and museum settings.
# TABLE OF CONTENTS

## CHAPTER SIX

**COLLEGE OF SCIENCES**

<table>
<thead>
<tr>
<th>Division of Computer Science</th>
<th>.......................................................................................................................... 335</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.S. in Computer Science</td>
<td>.......................................................................................................................... 335</td>
</tr>
<tr>
<td>Minor in Computer Science</td>
<td>.......................................................................................................................... 337</td>
</tr>
<tr>
<td>Division of Earth and Physical Sciences</td>
<td>...................................................................................................................... 342</td>
</tr>
<tr>
<td>B.S. in Multidisciplinary Science</td>
<td>...................................................................................................................... 342</td>
</tr>
<tr>
<td>B.S. in Chemistry</td>
<td>.......................................................................................................................... 344</td>
</tr>
<tr>
<td>B.A. in Chemistry</td>
<td>.......................................................................................................................... 346</td>
</tr>
<tr>
<td>Minor in Chemistry</td>
<td>.......................................................................................................................... 348</td>
</tr>
<tr>
<td>B.S. in Geology</td>
<td>.......................................................................................................................... 353</td>
</tr>
<tr>
<td>B.A. in Geology</td>
<td>.......................................................................................................................... 355</td>
</tr>
<tr>
<td>Minor in Geology</td>
<td>.......................................................................................................................... 357</td>
</tr>
<tr>
<td>B.S. in Physics</td>
<td>.......................................................................................................................... 362</td>
</tr>
<tr>
<td>B.A. in Physics</td>
<td>.......................................................................................................................... 364</td>
</tr>
<tr>
<td>Minor in Physics</td>
<td>.......................................................................................................................... 366</td>
</tr>
<tr>
<td>Division of Life Sciences</td>
<td>.......................................................................................................................... 373</td>
</tr>
<tr>
<td>B.S. in Biology</td>
<td>.......................................................................................................................... 373</td>
</tr>
<tr>
<td>UTSA/UTHSCSA Joint B.S. in Clinical Laboratory Sciences</td>
<td>...................................................................................................................... 383</td>
</tr>
<tr>
<td>Postbaccalaureate Clinical Laboratory Sciences Certificate Option</td>
<td>.......................................................................................................................... 386</td>
</tr>
<tr>
<td>UTHSCSA B.S. in Nursing</td>
<td>.......................................................................................................................... 386</td>
</tr>
<tr>
<td>Division of Mathematics and Statistics</td>
<td>...................................................................................................................... 390</td>
</tr>
<tr>
<td>B.S. in Mathematics</td>
<td>.......................................................................................................................... 392</td>
</tr>
<tr>
<td>Mathematics Concentration</td>
<td>.......................................................................................................................... 392</td>
</tr>
<tr>
<td>Statistics Concentration</td>
<td>.......................................................................................................................... 392</td>
</tr>
<tr>
<td>General Mathematical Studies Concentration</td>
<td>...................................................................................................................... 392</td>
</tr>
<tr>
<td>Minor in Mathematics</td>
<td>.......................................................................................................................... 393</td>
</tr>
<tr>
<td>Minor in Statistics</td>
<td>.......................................................................................................................... 393</td>
</tr>
</tbody>
</table>
CHAPTER 6
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.

DIVISION OF COMPUTER SCIENCE

The division 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 division 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; 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhetoric (6 semester credit hours)</td>
<td>All students must take the following six hours to meet this core requirement: ENG 1013 Freshman Composition ENG 1023 Discourse across the Disciplines</td>
</tr>
</tbody>
</table>
### Degree Requirements

A. 68 semester credit hours of required courses (this also satisfies the 9 hours of Core Curriculum requirements for Domain I):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 1713, 1711</td>
<td>Introduction to Computer Science and Recitation (The student who has no programming experience should take CS 1063 Introduction to Programming.)</td>
</tr>
<tr>
<td>CS 1723, 1721</td>
<td>Data Structures and Recitation</td>
</tr>
<tr>
<td>CS 2213</td>
<td>Advanced Programming</td>
</tr>
<tr>
<td>CS 2413</td>
<td>Systems Programming</td>
</tr>
<tr>
<td>CS 2514</td>
<td>Computer Organization I</td>
</tr>
<tr>
<td>CS 2734</td>
<td>Computer Organization II</td>
</tr>
<tr>
<td>CS 3233</td>
<td>Discrete Mathematical Structures</td>
</tr>
<tr>
<td>CS 3343</td>
<td>Analysis of Algorithms</td>
</tr>
<tr>
<td>CS 3723</td>
<td>Programming Languages</td>
</tr>
<tr>
<td>CS 3733</td>
<td>Operating Systems</td>
</tr>
<tr>
<td>CS 3773</td>
<td>Software Engineering</td>
</tr>
<tr>
<td>CS 4753</td>
<td>Computer Architecture</td>
</tr>
</tbody>
</table>

#### Domain I: Mathematics and Science

**Mathematics** (3 semester credit hours)
- MAT 1214 Calculus I

**Science** (6 semester credit hours)
- Three hours from Level One and three hours from Level Two will satisfy this core requirement.

#### Domain II: Society and Culture

**United States History and Diversity** (6 semester credit hours)
- Any six hours listed under this section in the list of core courses will satisfy this core requirement.

**Political Studies** (6 semester credit hours)
- Any six hours listed under this section in the list of core courses will satisfy this core requirement.

**Social and Behavioral Sciences** (3 semester credit hours)
- Any three hours listed under this section in the list of core courses will satisfy this core requirement.

**Economics** (3 semester credit hours)
- Any three hours listed under this section in the list of core courses will satisfy this core requirement.

#### Domain III: Literature and the Arts

**Literature** (3 semester credit hours)
- Any three hours listed under this section in the list of core courses will satisfy this core requirement.

**The Arts** (3 semester credit hours)
- Any three hours listed under this section in the list of core courses will satisfy this core requirement.

#### Domain IV: Interdisciplinary Studies

- (3 semester credit hours)
  - Any three credit hours listed under this section in the list of core courses will satisfy this core requirement.
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
STA 3513 Probability and Statistics
STA 3523 Statistical Methods
PHY 1904 Technical Physics I
PHY 1911 Technical Physics I Laboratory
PHY 1924 Technical Physics II

B. 18 semester credit hours of upper-division computer science courses (not including CS 3133 or 4103)

C. 7 semester credit hours of free elective

Minor in Computer Science

All students pursuing the Minor in Computer Science must complete 20 semester credit hours.

A. 14 semester credit hours of required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 1713, 1711</td>
<td>Introduction to Computer Science and Recitation</td>
</tr>
<tr>
<td>CS 1723, 1721</td>
<td>Data Structures and Recitation</td>
</tr>
<tr>
<td>CS 2213</td>
<td>Advanced Programming</td>
</tr>
<tr>
<td>CS 2413</td>
<td>Systems Programming</td>
</tr>
</tbody>
</table>

B. 6 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 undergraduate advisor in the Division of Computer Science.

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 1301.]

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 2083 and CS 1033.)

1063 Introduction to Computer Programming
(3-0) 3 hours credit. Prerequisite: MAT 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.
1073 Introductory Computer Programming for Scientific Applications
(3-0) 3 hours credit. Prerequisite: MAT 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.

1713 Introduction to Computer Science
(3-0) 3 hours credit. Prerequisite: MAT 1093 and either CS 1063 or previous programming experience, or concurrent enrollment in CS 1063. 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 1714 and CS 1713.)

1721 Data Structures Recitation
(1-0) 1 hour credit. Prerequisites: CS 1713 and MAT 1214. Concurrent enrollment in CS 1723 is required.
Recitation to accompany CS 1723.

1723 Data Structures
(3-0) 3 hours credit. Prerequisites: 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.)

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 non-numeric applications. Searching, sorting, linked lists, and data typing will be introduced. May not be applied toward a major in computer science.

2213 Advanced Programming
(3-0) 3 hours credit. Prerequisite: CS 1723.
Further application of programming techniques in a specific programming language. Continuation of data structures (graphs, B-trees, matrices), and file and memory management.

2413 Systems Programming
(3-0) 3 hours credit. Prerequisite: CS 2213.
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.

2514 Computer Organization I
(3-2) 4 hours credit. Prerequisite: CS 1713.
Introduction to digital logic design. Combinational and sequential circuits. Designing with MSI components. State machine design.

2734 Computer Organization II
(3-2) 4 hours credit. Prerequisite: CS 1723 and CS 2514.
Assembly language programming and computer organization. (Formerly CS 2733. Credit cannot be earned for both CS 2734 and CS 2733.)
3133 Computers and Society  
(3-0) 3 hours credit. Prerequisite: Consent of instructor or one of the following courses: CS 1033, 1063, 1073, 1713, or 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.

3233 Discrete Mathematical Structures  
(3-0) 3 hours credit. Prerequisites: CS 1723 and MAT 1223.  
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. Prerequisite: CS 2413.  
Study of two or three languages important to the computer science curriculum. (Formerly CS 3321. Credit cannot be earned for both CS 3323 and CS 3321.)

3343 Analysis of Algorithms  
(3-0) 3 hours credit. Prerequisites: CS 2413, 3233, and MAT 2213.  
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.)

3413 Data Communications  
(3-0) 3 hours credit. Prerequisite: CS 2734 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.

3723 Programming Languages  
(3-0) 3 hours credit. Prerequisites: CS 2213 and 3233.  
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.

3733 Operating Systems  
(3-0) 3 hours credit. Prerequisites: CS 2413, 2734, and 3233.  
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 2413 and 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. Prerequisite: 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. Prerequisite: 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. Prerequisite: 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. Prerequisite: 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.

4383 Computer Graphics
(3-0) 3 hours credit. Prerequisites: 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. Prerequisite: 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 3343 and STA 3523.
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 2734 and 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.

4753 Computer Architecture
(3-0) 3 hours credit. Prerequisites: CS 2734 and CS 3733.
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. Prerequisite: 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. Prerequisite: CS 3793.
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 3343 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 3733 and STA 3513.
Discussion of standard network layers, including issues of topology, error detection and recovery, congestion control, and hardware interfacing. (Formerly SD 4873. Credit cannot be earned for both CS 4873 and SD 4873.)

4901 Seminar in Computer Science
(1-0) 1 hour credit. Prerequisite: Upper-division classification in computer science program or consent of instructor.
Scheduled and impromptu presentations on subjects of interest given by division faculty and visiting lecturers. May be repeated for credit, but no more than 3 semester credit hours will apply toward the major in computer science.

4913 Independent Study
3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student’s advisor, the 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, regardless of discipline, will apply to a bachelor’s degree.

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.
DIVISION OF EARTH AND PHYSICAL SCIENCES

The degree programs offered by the Division of Earth and Physical Sciences 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 chemistry, geology, or physics. Students who have majored in any 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 degree in multidisciplinary science gives students broad training in the sciences and is suitable as a preparation to teach science at the secondary school level. Students seeking teacher certification should contact the Office of Teacher Advising, Certification, and Placement early in their studies for information about certificate requirements and admission procedures. Undergraduates seeking elementary teacher certification must complete the interdisciplinary studies degree. The division also offers Minors in Chemistry, Geology, and Physics.

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.

The minimum number of semester credit hours required for this degree, including the Core Curriculum requirements, is 132.

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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhetoric (6 semester credit hours)</td>
<td>All students must take the following six hours to meet this core requirement:</td>
</tr>
<tr>
<td></td>
<td>ENG 1013 Freshman Composition</td>
</tr>
<tr>
<td></td>
<td>ENG 1023 Discourse across the Disciplines</td>
</tr>
<tr>
<td>Domain I: Mathematics and Science</td>
<td><strong>Mathematics</strong> (3 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>MAT 1093 Precalculus</td>
</tr>
<tr>
<td></td>
<td><strong>Science</strong> (6 semester credit hours)</td>
</tr>
<tr>
<td></td>
<td>Any 6 semester credit hours from the below list will satisfy this core requirement:</td>
</tr>
<tr>
<td></td>
<td>AST 1013,1031 Introduction to Astronomy and Laboratory</td>
</tr>
<tr>
<td></td>
<td>BIO 1203, 1212 Biology I and Laboratory Investigations in Biology</td>
</tr>
<tr>
<td></td>
<td>CHE 1103, 1122 General Chemistry and Laboratory Workshop</td>
</tr>
<tr>
<td></td>
<td>CHE 1303 Chemical Principles</td>
</tr>
<tr>
<td></td>
<td>GEO 1103, 1111 Introduction to Earth Systems and Laboratory</td>
</tr>
<tr>
<td></td>
<td>GEO 1123, 1131 Earth History and Laboratory</td>
</tr>
<tr>
<td></td>
<td>PHY 1603, 1611 General Physics I and Laboratory</td>
</tr>
<tr>
<td></td>
<td>PHY 1623, 1631 General Physics II and Laboratory</td>
</tr>
<tr>
<td></td>
<td>PHY 1904, 1911 Technical Physics I and Laboratory</td>
</tr>
<tr>
<td></td>
<td>PHY 1924, 1931 Technical Physics II and Laboratory</td>
</tr>
</tbody>
</table>
Degree Requirements

A. 45 or 47 semester credit hours of required science courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST</td>
<td>Introduction to Astronomy and Laboratory</td>
</tr>
<tr>
<td>BIO</td>
<td>Biology I and Laboratory Investigations in Biology</td>
</tr>
<tr>
<td>BIO</td>
<td>Comparative Anatomy of Vertebrates</td>
</tr>
<tr>
<td>CHE</td>
<td>General Chemistry and Laboratory Workshop</td>
</tr>
<tr>
<td>CHE</td>
<td>Chemical Principles</td>
</tr>
<tr>
<td>CHE</td>
<td>Inorganic Qualitative and Quantitative Analysis</td>
</tr>
<tr>
<td>GEO</td>
<td>Introduction to Earth Systems and Laboratory</td>
</tr>
<tr>
<td>GEO</td>
<td>Earth History and Laboratory</td>
</tr>
<tr>
<td>GEO</td>
<td>Geomorphology and Laboratory</td>
</tr>
<tr>
<td>GRG</td>
<td>Weather and Climate</td>
</tr>
<tr>
<td>PHY</td>
<td>General Physics I and Laboratory</td>
</tr>
<tr>
<td>PHY</td>
<td>General Physics II and Laboratory</td>
</tr>
<tr>
<td>or</td>
<td>Technical Physics I and Laboratory</td>
</tr>
<tr>
<td>PHY</td>
<td>Technical Physics II and Laboratory</td>
</tr>
</tbody>
</table>

Either

B. 29 semester credit hours of approved electives in biology, chemistry, physics, geology, and/or mathematics; 15 of these hours must be at the upper-division level.
C. 6 semester credit hours in computer science and mathematics:

MAT 1093 Precalculus (or above)
CS 1073 Introductory Computer Programming for Scientific Applications
or
CS 1033 Microcomputer Applications

D. 19 to 24 semester credit hours of electives, as set forth below:

1. For students seeking the degree only (without teacher certification), at least 19 semester credit hours of electives are required, including a sufficient number of upper-division hours to meet UTSA's minimum of 39 upper-division hours.

2. For students seeking the degree with teacher certification, these electives must include:

   IDS 3003 Science and Humanity
   21 semester credit hours of professional education courses

Bachelor of Science Degree in Chemistry

The Bachelor of Science degree in Chemistry provides opportunities for preparation for careers in industry, government 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhetoric (6 semester credit hours)</td>
<td>All students must take the following six hours to meet this core requirement: ENG 1013 Freshman Composition ENG 1023 Discourse across the Disciplines</td>
</tr>
</tbody>
</table>
## Degree Requirements

### Domain I: Mathematics and Science

**Mathematics** (3 semester credit hours)
- MAT 1214 Calculus I

**Science** (6 semester credit hours)
- Any 6 semester credit hours from the below list will satisfy this core requirement:
  - CHE 1103 General Chemistry
  - CHE 1303 Chemical Principles
  - PHY 1904, 1911 Technical Physics I and Laboratory
  - PHY 1924, 1931 Technical Physics II and Laboratory

### Domain II: Society and Culture

**United States History and Diversity** (6 semester credit hours)
- Any six hours listed under this section in the list of core courses will satisfy this core requirement.

**Political Studies** (6 semester credit hours)
- Any six hours listed under this section in the list of core courses will satisfy this core requirement.

**Social and Behavioral Sciences** (3 semester credit hours)
- Any three hours listed under this section in the list of core courses will satisfy this core requirement.

**Economics** (3 semester credit hours)
- Any three hours listed under this section in the list of core courses will satisfy this core requirement.

### Domain III: Literature and the Arts

**Literature** (3 semester credit hours)
- Any three hours listed under this section in the list of core courses will satisfy this core requirement.

**The Arts** (3 semester credit hours)
- Any three hours listed under this section in the list of core courses will satisfy this core requirement.

### Domain IV: Interdisciplinary Studies

(3 semester credit hours)
- Any three hours listed under this section in the list of core courses will satisfy this core requirement.

### A. 52 semester credit hours of required courses in chemistry:

- CHE 1103 General Chemistry
- CHE 1303 Chemical Principles
- CHE 1312 Inorganic Qualitative and Quantitative Analysis
- CHE 2203 Organic Chemistry I
- CHE 2242 Organic Chemistry I Laboratory
- CHE 2251 Organic Chemistry I Workshop
- CHE 2303 Organic Chemistry II
- CHE 2342 Organic Chemistry II Laboratory
- CHE 3103 Analytical Chemistry
- CHE 3204 Physical Chemistry I
- CHE 3212 Physical Chemistry Laboratory
- CHE 3224 Physical Chemistry II
- CHE 3264 Descriptive Inorganic Chemistry
CHE 4103 Instrumental Analysis
CHE 4243 Organic Chemistry III
CHE 4253 Physical Chemistry III
CHE 4263 Inorganic Chemistry

CHE 4923 Special Project in Chemistry
or
CHE 4913 Independent Study

CHE 4971 Proseminar

B. 9 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 5-10 of this catalog.
<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric** (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
| **Domain I: Mathematics and Science** | **Mathematics** (3 semester credit hours)  
MAT 1214 Calculus I  
**Science** (6 semester credit hours)  
Any 6 semester credit hours from the below list will satisfy this core requirement:  
CHE 1103 General Chemistry  
CHE 1303 Chemical Principles  
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 |
| **Domain II: Society and Culture** | **United States History and Diversity** (6 semester credit hours)  
Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
**Political Studies** (6 semester credit hours)  
Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
**Social and Behavioral Sciences** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
**Economics** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement. |
| **Domain III: Literature and the Arts** | **Literature** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
**The Arts** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement. |
| **Domain IV: Interdisciplinary Studies** | (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. 40 semester credit hours of required courses in chemistry:

<table>
<thead>
<tr>
<th>CHE</th>
<th>1103</th>
<th>General Chemistry</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE</td>
<td>1303</td>
<td>Chemical Principles</td>
</tr>
<tr>
<td>CHE</td>
<td>1312</td>
<td>Inorganic Qualitative and Quantitative Analysis</td>
</tr>
<tr>
<td>CHE</td>
<td>2203</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>CHE</td>
<td>2242</td>
<td>Organic Chemistry I Laboratory</td>
</tr>
</tbody>
</table>
CHE 2251  Organic Chemistry I Workshop
CHE 2303  Organic Chemistry II
CHE 2342  Organic Chemistry II Laboratory
CHE 3103  Analytical Chemistry
CHE 3204  Physical Chemistry I
CHE 3212  Physical Chemistry Laboratory
CHE 3224  Physical Chemistry II
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

2. 9 additional semester credit hours of approved 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.

22 semester credit hours are required for this minor:

CHE 1303  Chemical Principles
CHE 1312  Inorganic Qualitative and Quantitative Analysis
CHE 2203  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 Division of Earth and Physical Sciences.
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. May not be applied to a B.S. or B.A. in Chemistry. [TCCN: CHEM 1305.]

1103 General Chemistry
(3-0) 3 hours credit. Prerequisites: Passing grade on Chemistry Placement Exam or grade of “C” or better in CHE 1073, and completion of, or concurrent enrollment in, MAT 1023.
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 Laboratory Workshop
(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. Prerequisites: CHE 1003 and 1011.
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  **Chemical Principles**  
(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,  
odxidation-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  **Inorganic Qualitative and Quantitative Analysis**  
(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.]

2203  **Organic Chemistry I**  
(3-0) 3 hours credit. Prerequisites: CHE 1303 and 1312.  
An elementary study of structure, stereochemistry, reactions, and reaction mechanisms associated with organic  
compounds. Primarily for chemistry, premed, and science majors. Concurrent enrollment in CHE 2251 is highly  
recommended and required for chemistry majors. [TCCN: CHEM 2323.]

2242  **Organic Chemistry I Laboratory**  
(1-5) 2 hours credit. Prerequisite: Completion of, or concurrent enrollment in, CHE 2203.  
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.]

2251  **Organic Chemistry I Workshop**  
(0-2) 1 hour credit. Prerequisite: Concurrent enrollment in CHE 2203.  
A workshop section for discussion of problems amplifying and clarifying textual content of CHE 2203.

2303  **Organic Chemistry II**  
(3-0) 3 hours credit. Prerequisites: CHE 2203 and completion of, or concurrent enrollment in, CHE 2242. Concurrent  
enrollment in CHE 2351 is highly recommended.  
Continuing study of fundamentals of structure, reactions, and reaction mechanisms of phosphorus and sulphur;  
polyfunctional organic compounds. A continuation of CHE 2203. Concurrent enrollment in CHE 2351 is highly  
recommended. [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.]

2351  **Organic Chemistry II Workshop**  
(0-2) 1 hour credit. Prerequisite: Concurrent enrollment in CHE 2303.  
A workshop section for discussion of problems amplifying and clarifying textual content of CHE 2303.

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  **Physical Chemistry I**  
(4-0) 4 hours credit. Prerequisites: CHE 1303, CHE 1312, MAT 1223, CS 1033, and PHY 1924 and 1931; completion of two semesters of organic chemistry is strongly recommended. States of matter, gas laws, equations of state, and intermolecular interactions; thermodynamics and physical equilibria; elements of molecular-kinetic theory and statistical mechanics; properties of solutions, chemical equilibria, phase equilibria, and changes of state; 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. Prerequisite: CHE 3103 and 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  **Physical Chemistry II**  
(4-0) 4 hours credit. Prerequisite: CHE 3204. Chemical kinetics, electrolytes and electrochemistry, elements of quantum mechanics, chemical bonds, spectroscopy, and photochemistry. A continuation of CHE 3204.

3264  **Descriptive Inorganic Chemistry**  
(3-3) 4 hours credit. Prerequisites: CHE 1303 and 1312. 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, 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, 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, 2342, and 2351; 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  **Physical Chemistry III**  
(3-0) 3 hours credit. Prerequisites: CHE 2303 and 3224 or consent of instructor. Relations between structure of molecules and physico-chemical properties of gases, liquids, and solids; quantum-mechanical and statistico-thermodynamical approach.

4263  **Inorganic Chemistry**  
(3-0) 3 hours credit. Prerequisites: CHE 3204 and 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. Prerequisite: 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.

4373  **Organic Spectral Studies**  
(2-4) 3 hours credit. Prerequisite: CHE 2342. Corequisite CHE 3204 or consent of instructor.  
Identification of functional groups and the determination of the structure of compounds by spectral techniques including IR, NMR, mass spectroscopy, and UV-V is absorption spectroscopy; basic theory of spectral measurements with emphasis on practical applications.

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 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.

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) of the instructor, the student’s advisor, the Division Director 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 Division Director (form available in division 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 either 3204 or 3124.  
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.

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 123.

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 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhetoric (6 semester credit hours)</td>
<td>All students must take the following six hours to meet this core requirement: ENG 1013 Freshman Composition ENG 1023 Discourse across the Disciplines</td>
</tr>
<tr>
<td>Domain I: Mathematics and Science</td>
<td>Mathematics (3 semester credit hours) MAT 1214 Calculus I Science (6 semester credit hours) Any 6 semester credit hours from the below list will satisfy this core requirement: CHE 1103 General Chemistry CHE 1303 Chemical Principles GEO 1103, 1111 Introduction to Earth Systems and Laboratory GEO 1123, 1131 Earth History and Laboratory 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</td>
</tr>
<tr>
<td>Domain II: Society and Culture</td>
<td>United States History and Diversity (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. Political Studies (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. Social and Behavioral Sciences (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. Economics (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>
Degree Requirements

A. 52 semester credit hours in geology completed with a grade of “C” or better:

1. 39 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 4946  Field Geology

2. 13 additional semester credit hours selected from the following (a maximum of 3 hours of 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 3374  Geochemistry
   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
   GEO 4993  Honors Research

B. 26 to 29 required semester credit hours in the College of Sciences:

   CHE 1103  General Chemistry
   CHE 1303  Chemical Principles
   CHE 1312  Inorganic Qualitative and Quantitative Analysis
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

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 122.

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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric (6 semester credit hours)** | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
| **Domain I: Mathematics and Science** | **Mathematics (3 semester credit hours)**  
MAT 1214 Calculus I  
**Science (6 semester credit hours)**  
Any 6 semester credit hours from the below list will satisfy this core requirement:  
CHE 1103 General Chemistry  
CHE 1303 Chemical Principles  
GEO 1103, 1111 Introduction to Earth Systems and Laboratory  
GEO 1123, 1131 Earth History and Laboratory  
PHY 1603, 1611 General Physics I and Laboratory  
PHY 1623, 1631 General Physics II and Laboratory |
### Degree Requirements

A. 45 semester credit hours of geology:

1. 33 semester credit hours of required courses:
   
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 1103, 1111</td>
<td>Introduction to Earth Systems and Laboratory</td>
</tr>
<tr>
<td>GEO 1123, 1131</td>
<td>Earth History and Laboratory</td>
</tr>
<tr>
<td>GEO 3113</td>
<td>Geologic Field Investigations</td>
</tr>
<tr>
<td>GEO 3163</td>
<td>Oceanography</td>
</tr>
<tr>
<td>GEO 3203, 3211</td>
<td>Introduction to Rocks and Minerals and Laboratory</td>
</tr>
<tr>
<td>GEO 3303, 3311</td>
<td>Introduction to Paleontology and Laboratory</td>
</tr>
<tr>
<td>GEO 3323, 3331</td>
<td>Global Tectonism and Geologic Processes and Laboratory</td>
</tr>
<tr>
<td>GEO 4063</td>
<td>Principles of Environmental Geology</td>
</tr>
<tr>
<td>GEO 4113, 4121</td>
<td>Geomorphology and Laboratory</td>
</tr>
</tbody>
</table>

2. 12 additional semester credit hours selected from the following (a maximum of 3 hours from either GEO 4911-3 or 4953 may apply to this requirement):
   
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 3083, 3091</td>
<td>Stratigraphy and Laboratory</td>
</tr>
<tr>
<td>GEO 3103, 3111</td>
<td>Structural Geology and Laboratory</td>
</tr>
<tr>
<td>GEO 3123, 3131</td>
<td>Sedimentary Geology and Laboratory</td>
</tr>
<tr>
<td>GEO 3143, 3151</td>
<td>Economic Geology and Laboratory</td>
</tr>
<tr>
<td>GEO 3374</td>
<td>Geochemistry</td>
</tr>
<tr>
<td>GEO 3383</td>
<td>General Geophysics</td>
</tr>
<tr>
<td>GEO 4023</td>
<td>Engineering Geology</td>
</tr>
<tr>
<td>GEO 4063</td>
<td>Principles of Environmental Geology</td>
</tr>
</tbody>
</table>
B. 23 to 24 semester credit hours in the College of Sciences:

- CHE 1103 General Chemistry
- CHE 1303 Chemical Principles
- CHE 1312 Inorganic Qualitative and Quantitative Analysis
- CS 1073 Introductory Computer Programming for Scientific Applications
  or
- CS 1713, 1711 Introduction to Computer Science and Recitation
- MAT 1214 Calculus I
- PHY 1603, 1611 General Physics I and Laboratory
- PHY 1623, 1631 General Physics II and Laboratory

C. 21 semester credit hours of electives

**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 Introduction to Rocks and Minerals
  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 undergraduate advisor in the Division of Earth and Physical Sciences.
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 the following Core Curriculum requirement: MAT 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. (Formerly GEO 1003. Credit cannot be earned for both GEO 1103 and GEO 1003.) [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. (Formerly GEO 1011. Credit cannot be earned for both GEO 1111 and GEO 1011.) [TCCN: GEOL 1103.]

1123 Earth History
(3-0) 3 hours credit. Prerequisite: Successful completion the following Core Curriculum requirement: MAT 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. (Formerly GEO 1023. Credit cannot be earned for both GEO 1123 and GEO 1023.) [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. (Formerly GEO 1031. Credit cannot be earned for both GEO 1131 and GEO 1031.) [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, 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, 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, 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, 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, 1111, 1123, 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. (Formerly GEO 2063. Credit cannot be earned for both GEO 3063 and GEO 2063.)

3071  Paleontology Laboratory  
(0-3) 1 hour credit. Prerequisites: GEO 1103, 1111, 1123, 1131, and concurrent enrollment in GEO 3063. 
Study of fossil specimens, collections, and preparation techniques. Field trips required. (Formerly GEO 2071. Credit cannot be earned for both GEO 3071 and GEO 2071.)

3083  Stratigraphy  
(3-0) 3 hours credit. Prerequisites: GEO 3063, 3071, 3123, and 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, 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. in Geology. Concurrent enrollment in GEO 4946 is not permitted. Field trips required.
3123  **Sedimentary Geology**  
(3-0) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in GEO 3043 and 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, 3052, and 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  **Introduction to Rocks and Minerals**  
(3-0) 3 hours credit. Prerequisite: GEO 1103, GEO 1111, CHE 1103, MAT 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. in Geology.  

3211  **Introduction to 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. in Geology. Field trips required.  

3303  **Introduction to Paleontology**  
(3-0) 3 hours credit. Prerequisite: GEO 1103, GEO 1111, CHE 1103, MAT 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. 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. in Geology. Field trips required.  

3323  **Global Tectonism and Geologic Processes**  
(3-0) 3 hours credit. Prerequisites: GEO 1103, GEO 1111, and MAT 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. 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. 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. (Formerly GEO 3373. Credit cannot be earned for both GEO 3374 and GEO 3373.)

3383 **General Geophysics**  
(3-0) 3 hours credit. Prerequisites: GEO 3043 and 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 1111.  
Geologic factors important to city and regional planning. Land capability studies; geologic hazards. Field trips required.

4113 **Geomorphology**  
(3-0) 3 hours credit. Prerequisites: GEO 1103, 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, 1111, and concurrent enrollment in GEO 4113.  
Interpretation of maps and aerial photographs. Field trips required.

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 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, regardless of discipline, will apply to a bachelor’s degree in geology.

4946 **Field Geology**  
(6-12) 6 hours credit. Prerequisites: GEO 3103, 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**  
(1,2,3-0) 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.

**Bachelor of Science Degree in Physics**

The Bachelor of Science degree in Physics provides opportunities for preparation for careers in industry and government 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.

**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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric (6 semester credit hours)** | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
| **Domain I: Mathematics and Science** | **Mathematics** (3 semester credit hours)  
MAT 1214 Calculus I  
**Science** (6 semester credit hours)  
Any 6 semester credit hours from the below list will satisfy this core requirement:  
CHE 1103 General Chemistry  
CHE 1303 Chemical Principles  
PHY 1904, 1911 Technical Physics I and Laboratory  
PHY 1924, 1931 Technical Physics II and Laboratory |
| **Domain II: Society and Culture** | **United States History and Diversity** (6 semester credit hours)  
Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
**Political Studies** (6 semester credit hours)  
Any six hours listed under this section in the list of core courses will satisfy this core requirement.  
**Social and Behavioral Sciences** (3 semester credit hours)  
Any three hours listed under this section in the list of core courses will satisfy this core requirement.  
**Economics** (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. 52 semester credit hours:

1. 40 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 3143 Computer Visualization of Physics
   PHY 3203 Classical Mechanics I
   PHY 3293 Thermal Physics
   PHY 3343 Advanced Physics Laboratory I
   PHY 3353 Advanced Physics Laboratory II
   PHY 3423 Electricity and Magnetism
   PHY 3443 Optics
   PHY 3823 Mathematical Physics
   PHY 4263 Quantum Mechanics I

2. 12 additional approved semester credit hours selected from the following (a maximum of 3 hours from either PHY 4911-3 or 4953 may apply to this requirement):

   PHY 3163 Theoretical Physics
   PHY 3233 Environmental Physics
   PHY 3313 Solid State Physics
   PHY 3433 Introduction to the Theory of Solid State Electronics
   PHY 3453 Lasers: Theory and Applications
   PHY 4133 Numerical Methods for Physicists
   PHY 4203 Classical Mechanics II
   PHY 4423 Quantum Mechanics II
   PHY 4553 Health Physics
   PHY 4911-3 Independent Study
   PHY 4953 Special Studies in Physics
   PHY 4993 Honors Research
B. 39 semester credit hours required in the College of Sciences:

1. 27 semester credit hours of required courses (excluding physics):
   
   CHE 1103 General Chemistry  
   CHE 1303 Chemical Principles  
   CHE 1312 Inorganic Qualitative and Quantitative Analysis  
   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. 12 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric (6 semester credit hours)** | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
| **Domain I: Mathematics and Science** | **Mathematics (3 semester credit hours)**  
MAT 1214 Calculus I  
**Science (6 semester credit hours)**  
Any 6 semester credit hours from the below list will satisfy this core requirement:  
CHE 1103 General Chemistry  
CHE 1303 Chemical Principles  
PHY 1904, 1911 Technical Physics I and Laboratory  
PHY 1924, 1931 Technical Physics II and Laboratory |
### Degree Requirements

A. 28 semester credit hours:

1. 25 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 3343  Advanced Physics Laboratory I
   - PHY 3423  Electricity and Magnetism
   - PHY 4133  Numerical Methods for Physicists

2. 3 additional semester credit hours selected from the following:

   - PHY 3143  Computer Visualization of Physics
   - PHY 3163  Theoretical Physics
   - PHY 3293  Thermal Physics
   - PHY 3313  Solid State Physics
   - PHY 3353  Advanced Physics Laboratory II
   - PHY 3443  Optics
   - PHY 3823  Mathematical Physics
   - PHY 4263  Quantum Mechanics I
B. 60 semester credit hours required in the College of Sciences:

1. 27 semester credit hours of required courses (excluding physics):

   CHE 1103 General Chemistry  
   CHE 1303 Chemical Principles  
   CHE 1312 Inorganic Qualitative and Quantitative Analysis  
   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. 33 additional approved semester credit hours from the College of Sciences

**Minor in Physics**

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 3163 Theoretical Physics  
   PHY 3293 Thermal Physics  
   PHY 3313 Solid State Physics  
   PHY 3443 Optics  
   PHY 3823 Mathematical Physics  
   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 undergraduate advisor in the Division of Earth and Physical Sciences.

**COURSE DESCRIPTIONS**

**PHYSICS**

**1003** Topics in Physics  
(3-0) 3 hours credit.  
An organized course offering the opportunity for specialized study in physics. This course is not often available as part of the regular course offering and provides special opportunities for students to learn about practical methods and/or special topics in physics. Topics include practical problem solving, the nature of things, and energy and the environment. 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. May not be counted toward the B.S. in Physics without written approval of the department.
1013 **Universes**
(3-0) 3 hours credit. Prerequisites: MAT 1023, AST 1013, or consent of instructor.
This course emphasizes how the major ideas of physics have influenced and reshaped our general concept of the universe. Selected topics include the historical development of the scientific method, ancient cosmological ideas beginning with the geocentric model, and the classical cosmological models emphasizing Newtonian cosmology. Modern cosmological ideas including Einstein’s and Hawking’s universe will be compared. Topics will include the large-scale structure, origin, and fate of the universe. Modern evidence supporting these theories will be presented. May not be applied toward the B.S. in Physics without prior written approval of the division. 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.]

1014 **Conceptual Physics and Civilization**
(3-1) 4 hours credit. Prerequisite: MAT 1023.
Major scientific discoveries since the Renaissance and their impact on the development of culture. May not be applied toward a B.S. or B.A. in Physics.

1603 **General Physics I**
(3-0) 3 hours credit. Prerequisite: MAT 1023 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. Prerequisites: 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**
(3-2) 4 hours credit. Prerequisite: 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**  
(3-2) 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.]

2004  **Understanding Physics**  
(3-3) 4 hours credit. Prerequisites: Completion of Core Curriculum requirements in science. Study of major concepts, principles, and theories in the fields of physics and ways of scientific thinking that contribute to empirical and theoretical inquiries. Study of the fundamental laws that govern the universe, including the worlds of mechanics, thermodynamics, electromagnetism, and quantum theory, and how they relate to physics. Topics include but are not limited to fundamental forces; energy and how it is conserved and transformed; optics; matter; atomic structure; and molecular interactions. Includes a laboratory. May not be applied to a major in physics. May apply toward the Level I Core Curriculum requirement in science. [TCCN: PHYS 1410.]

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.

3133  **Computers in the Physics Laboratory**  
(3-0) 3 hours credit. Prerequisites: PHY 1924, 1931, and 3103. Topics covered include i80x86 assembly language programming, the FORTH programming environment, construction of customized computer interfaces to equipment, writing DOS/Windows device drivers for scientific instrumentation, and computer-controlled data acquisition and analysis.

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. in Physics with approval of the physics advisor.

3163  **Theoretical Physics**  
(3-0) 3 hours credit. Prerequisites: PHY 1924 and MAT 2213. Methods of theoretical physics applied to problems in electromagnetism and quantum and statistical physics, with an emphasis on physical formulation and interpretation.

3203  **Classical Mechanics I**  
(3-0) 3 hours credit. Prerequisites: PHY 1924 and completion of or concurrent enrollment in PHY 3103 and MAT 2213. Kinematics, the Newtonian formulation and the Lagrangian formulation, various applications including gravitation and planetary motion, and rigid body motion.

3233  **Environmental Physics**  
(3-0) 3 hours credit. Prerequisite: PHY 1623 or PHY 1924. The essentials of environmental physics: global climate, energy for human use, pollutants, noise, environmental spectroscopy, and LIDAR.
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 I
(0-6) 3 hours credit. Prerequisites: PHY 1924 and 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.)

3353 Advanced Physics Laboratory II
(0-6) 3 hours credit. Prerequisite: PHY 3343.
A continuation of PHY 3343. (Formerly PHY 3356. Credit cannot be earned for both PHY 3353 and PHY 3356.)

3423 Electricity and Magnetism
(3-0) 3 hours credit. Prerequisites: PHY 1924 and completion of or concurrent enrollment in MAT 2213.
Vector calculus, electrostatics, electromagnetic waves, magnetostatics, Faraday’s Law, Maxwell’s equations, and solution to Laplace’s equation.

3433 Introduction to the Theory of Solid State Electronics
(3-0) 3 hours credit. Prerequisites: PHY 3103 and 3313, or consent of instructor.
Principles of intrinsic and extrinsic semiconductors. The theory of solid state devices.

3443 Optics
(3-0) 3 hours credit. Prerequisite: PHY 3423.
The 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.

3823 Mathematical Physics
(3-0) 3 hours credit. Prerequisite: MAT 2233.
Tensor analysis, complex variable theory, partial differential equations of physics, special functions, and approximation techniques.

4003 Introduction to Astrophysics
(3-0) 3 hours credit. Prerequisites: MAT 1223 and PHY 1924, 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.
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.

4263  Quantum Mechanics I
       (3-0) 3 hours credit. Prerequisites: PHY 3203 and 3423.
       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.

4453  Physics Demonstrations
       (3-0) 3 hours Prerequisites: PHY 1603 and 1623, or PHY 1904 and 1924.
       Introduction to teaching materials and laboratory demonstrations illustrating principles of classical and modern
       physics, with emphasis on inexpensive techniques and direct experience. May not be counted toward a B.S. or B.A. in
       Physics.

4463  Physics and the Entrepreneurial Process
       (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 follows 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.

4911-3  Independent Study
       1 to 3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student’s advisor, the
       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, regardless of discipline, will apply to a bachelor’s degree in
       physics.

4933,6  Internship in Physics
       3 or 6 hours credit. Prerequisites: Senior standing and consent of internship coordinator.
       This course offers supervised work experience relevant to physics within selected organizations and agencies.
       Internships should be relevant to previous coursework. A maximum of 6 semester credit hours may be earned through
       Internship 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. 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.

**COURSE DESCRIPTIONS**  
**ASTRONOMY**  
(AST)

1013  **Introduction to Astronomy**  
(3-0) 3 hours credit. Prerequisite: MAT 1023.  
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**  
(0-2) 1 hour credit. Prerequisite: 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: MAT 1023.  
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 systems, 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.]

**COURSE DESCRIPTIONS**  
**ENVIRONMENTAL SCIENCES**  
(ES)

2013  **Introduction to Environmental Systems**  
(3-0) 3 hours credit.  
An introduction to the principles of man-machine-community interrelationships within the natural and built environments. General attention is given to the 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. (Formerly ENV 2013. Credit cannot be earned for both ES 2013 and ENV 2013.) [TCCN: BIOL 2306.]

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. (Formerly ENV 3023. Credit cannot be earned for both ES 3023 and ENV 3023.)
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.

4073 ArcInfo GIS
(2-2) 3 hours credit. Prerequisite: ES 4043 or consent of instructor.
The Geographic Information System (GIS) software ArcInfo is widely viewed by universities, businesses, and governments as the standard for data creation, manipulation, and modeling. This course will teach ArcInfo version 8 and emphasize topics such as creating coverages, data manipulation, overlays, and data conversion.
DIVISION OF LIFE SCIENCES

The Division of Life Sciences offers a Bachelor of Science degree in Biology with emphases in molecular cell biology and neurobiology. 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.

DIVISION HONORS

The Division of Life Sciences designates certain of its outstanding students as Division Honors students and provides the opportunity for advanced study under close faculty supervision.

Selection of students for admission to the honors program is based on the student’s academic performance and recommendation by the faculty. To be eligible for the program, students must have a minimum overall grade point average of 3.0 and a minimum grade point average of 3.5 in their major. The minimum grade point averages must be maintained for students to receive the approval of the Division Honors Committee and faculty. Students admitted to the honors program are expected to enroll in Honors Thesis (BIO 4993) during their final two semesters. The completed thesis must be approved by the supervising faculty sponsor and another divisional faculty member. Students interested in this program should contact their faculty advisors for additional information. Division Honors can be attained independent of or in addition to University Honors.

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 Office of Teacher Advising, Certification, and Placement in the Division of Education 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhetoric (6 semester credit hours)</td>
<td>All students must take the following six hours to meet this core requirement: ENG 1013 Freshman Composition ENG 1023 Discourse across the Disciplines</td>
</tr>
</tbody>
</table>
Degree Requirements

A. 48 semester credit hours in the major, 32 of which must be at the upper-division level:

1. 23 semester credit hours in biology are required:
   - BIO 1203 Biology I
   - BIO 1212 Laboratory Investigations in Biology
   - BIO 1223 Biology II
   - 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 3713, 3722 Microbiology and Laboratory
   - BIO 4143, 4152 Developmental Biology and Laboratory
   - BIO 4433, 4442 Neurobiology and Laboratory

3. 15 additional semester credit hours of biology electives, 12 of which must be at the upper-division level
B. 24 to 25 semester credit hours of support work:

1. 13 semester credit hours are required in chemistry:
   - CHE 1103 General Chemistry
   - CHE 1303 Chemical Principles
   - CHE 1312 Inorganic Qualitative and Quantitative Analysis
   - CHE 2203, 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. 21 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.]

**1203 Biology I**
(3-0) 3 hours credit.
An introduction to the science of biology, emphasizing a comparative study of the diversity of life forms. Topics include cell biology, energetics, metabolism, sexual reproduction, development, physiology, and animal behavior. May apply toward the Level I Core Curriculum requirement in science. (Credit cannot be earned for both BIO 1203 and BIO 1103.) [TCCN: BIOL 1306.]

**1212 Laboratory Investigations in Biology**
(0-6) 2 hours credit.
Introduction to the tools, techniques, and topics of modern experimental biology. (Formerly BIO 1112. Credit cannot be earned for both BIO 1212 and BIO 1112.) [TCCN: BIOL 1106.]

**1223 Biology II**
(3-0) 3 hours credit. Prerequisites: BIO 1203.
An introduction to the science of biology, emphasizing a comparative study of the diversity of life forms. Topics include the decomposers, the producers, the consumers, genetics, ecology, and evolution. May apply toward the Level II Core Curriculum requirement in science. [TCCN: BIOL 1307.]
2003 **Human Sex and Reproduction**  
(3-0) 3 hours credit.  
An in-depth look at human reproductive anatomy, physiology, and behavior. Topics to be considered include sexual selection, mating, endocrine function, fertilization, 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 1203 and 1212. 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 1203, 1223, and 1212, 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.

3003 **Introduction to Marine Biology**  
(3-0) 3 hours credit. Prerequisites: BIO 1203, 1223, and 1212.  
General marine biology with an emphasis on the diversity of marine organisms and marine resources.

3013 **Introductory Pathology**  
(3-0) 3 hours credit. Prerequisites: BIO 1203, 1223, and 1212, or AHS 2103.  
Concepts of disease and diagnosis of pathological conditions.

3033 **Human Physiology and Performance**  
(3-0) 3 hours credit. Prerequisites: 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 1203, 1223, and 1212.  
A comprehensive study of the invertebrate animals, with emphasis on their taxonomy, 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 1203, 1223, and 1212.  
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 1203, 1223, and 1212. 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. Prerequisites: BIO 1223 or PSY 1203. 
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 1203, 1223, 1212, 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 1203, 1223, and 1212. 
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 1203, 1223, 1212, and CHE 1303. Concurrent enrollment in BIO 3422 is recommended. 
Fundamental properties and processes in living systems. (Credit cannot be earned for both AHS 2103 and BIO 3413.)

3422  **General Physiology Laboratory**  
(0-6) 2 hours credit. Concurrent enrollment in BIO 3413 is recommended. 
(Credit cannot be earned for both AHS 2111 and BIO 3422.)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3513</td>
<td><strong>Biochemistry</strong></td>
<td>(3-0)</td>
<td>CHE 2203 and 2242; BIO 2313 is also recommended.</td>
<td>Introduction to biochemistry: amino acids, protein structure, enzymes, lipids, metabolism, nucleic acid structure, bioenergetics, and carbohydrates. Concurrent enrollment in BIO 3522 is recommended.</td>
</tr>
<tr>
<td>3522</td>
<td><strong>Biochemistry Laboratory</strong></td>
<td>(0-6)</td>
<td>Concurrent enrollment in BIO 3513 is recommended.</td>
<td>Basic biochemical laboratory techniques: titration, protein purification, enzyme kinetics, chromatography, electrophoresis, and centrifugation.</td>
</tr>
<tr>
<td>3613</td>
<td><strong>The Biology of Aging</strong></td>
<td>(3-0)</td>
<td>BIO 1203 and 1223.</td>
<td>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.</td>
</tr>
<tr>
<td>3623</td>
<td><strong>Neuropsychopharmacology</strong></td>
<td>(3-0)</td>
<td>BIO 1203, 1223, and 1212 or consent of the instructor.</td>
<td>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.</td>
</tr>
<tr>
<td>3633</td>
<td><strong>Human Environmental Physiology</strong></td>
<td>(3-0)</td>
<td>BIO 3413 or AHS 2103.</td>
<td>Adaptive physiological responses to unusual environmental conditions.</td>
</tr>
<tr>
<td>3663</td>
<td><strong>Human Embryology</strong></td>
<td>(3-0)</td>
<td>BIO 1203, 1223 and 1212, or consent of the instructor.</td>
<td>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.</td>
</tr>
<tr>
<td>3713</td>
<td><strong>Microbiology</strong></td>
<td>(3-0)</td>
<td>BIO 2313 and CHE 2203.</td>
<td>A comprehensive study of microorganisms, including their composition, morphology, growth, metabolism, classification, ecology, and significance in disease. (Credit cannot be earned for both AHS 1053 and BIO 3713.)</td>
</tr>
<tr>
<td>3722</td>
<td><strong>Microbiology Laboratory</strong></td>
<td>(0-6)</td>
<td>Concurrent enrollment in BIO 3713 is recommended.</td>
<td>Concurrent enrollment in BIO 3713 is recommended. (Credit cannot be earned for both AHS 1061 and BIO 3722.)</td>
</tr>
<tr>
<td>3733</td>
<td><strong>Industrial Microbiology</strong></td>
<td>(3-0)</td>
<td>BIO 3713 and 3722.</td>
<td>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.</td>
</tr>
<tr>
<td>3813</td>
<td><strong>Cellular Biology</strong></td>
<td>(3-0)</td>
<td>BIO 3413 or 3513.</td>
<td>A study of cellular function with relation to structure from the microscopic to the molecular level.</td>
</tr>
<tr>
<td>3822</td>
<td><strong>Cellular Biology Laboratory</strong></td>
<td>(0-6)</td>
<td>Concurrent enrollment in BIO 3813 is recommended.</td>
<td>Concurrent enrollment in BIO 3813 is recommended.</td>
</tr>
</tbody>
</table>
3913 Molecular Biology
(3-0) 3 hours credit. Prerequisite: BIO 3513.
A study of nucleotides, DNA, replication, recombination, RNA, transcription, genetic code, translation, and chromosomes.

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. Prerequisites: 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 around us arose, how it has been maintained by natural processes, and how we can prevent its destruction.

4043 Desert Biology
(2-3) 3 hours credit. Prerequisites: BIO 3283 and 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. Prerequisites: 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. Prerequisites: 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 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, 3522, 3713, and 3722.
A study of the scientific principles underlying brewing and other fermentation technology.

4143 Developmental Biology
(3-0) 3 hours credit. Prerequisites: BIO 1203, 1223, 3513, and 3813. Concurrent enrollment in BIO 4152 is recommended.
Sequential analysis of development in vertebrates and the factors which affect fertilization, organogenesis, and implantation. (Formerly BIO 3143. Credit cannot be earned for both BIO 3143 and 4143.)
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 3152 and 4152.)

4203 Plant Ecology
(3-0) 3 hours credit. Prerequisite: BIO 3283, 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 1203, 1223, and 1212, 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 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 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. Concurrent enrollment in BIO 4313 and 322. 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 3422.
A phylogenetic study of physiologic adaptation in animals.

4433 Neurobiology
(3-0) 3 hours credit. Prerequisites: BIO 3413 and 3422. Concurrent enrollment in BIO 4442 is recommended.
Anatomy and physiology of nervous systems; the mechanisms of neuronal functions.

4442 Neurobiology Laboratory
(0-6) 2 hours credit. Concurrent enrollment in BIO 4433 is recommended.
A laboratory course emphasizing principles presented in BIO 4433.
4453  Endocrinology  
(3-0) 3 hours credit. Prerequisites: BIO 3413, 3422, 3513, and 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 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 recommended. 
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 4433 and 4442. Concurrent enrollment in BIO 4592 is recommended. 
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 3351, and CHE 2203 and 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.

4723  Virology  
(3-0) 3 hours credit. Prerequisite: BIO 3713. 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 4731 and 4732.)

4743  Immunology  
(3-0) 3 hours credit. Prerequisites: BIO 3513 and 3522, or 3713 and 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 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 1203, 1223, and 1212, 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 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, regardless of discipline, will apply to a bachelor’s degree.

4951-3 Special Studies in Biology  
(1,2,3-0) 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 1203, 1223, and 1212; 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 during their last two semesters and approval by the Division Honors Committee and faculty.  
Supervised research and preparation of an honors thesis. May be repeated once with approval.

**JOINT ALLIED HEALTH SCIENCE PROGRAMS**

Joint degree programs 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 predental 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 Division of Life Sciences and through the chairman of the Health Related Professions Advisory Subcommittee 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 director of the Division of Life Sciences.

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, culminating in a concentrated clinical hospital experience at The University of Texas Health Science Center at San Antonio. Students complete clinical laboratory sciences courses during their sophomore and junior years and enroll in classes on both the UTSA and UTHSCSA campuses. To enroll in UTHSCSA courses, students must complete a course card obtainable from both the UTHSCSA Office of Admissions and the Department of Clinical Laboratory Sciences. 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 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 November 1 for spring admission. Students must be admitted to UTHSCSA before they enroll in CLSC courses. Minimum requirements for admission to UTHSCSA include 24 semester credit hours of college work, an overall grade point average of 2.0, and no grade lower than a “C” in any basic 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 Committee on Allied Health Education and Accreditation in cooperation with 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 encouraged 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 157.5.

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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhetoric (6 semester credit hours)</td>
<td>All students must take the following six hours to meet this core requirement: ENG 1013 Freshman Composition ENG 1023 Discourse across the Disciplines</td>
</tr>
<tr>
<td>Domain I: Mathematics and Science</td>
<td>Mathematics (3 semester credit hours) MAT1093 Precalculus Science (6 semester credit hours): Any two of these courses may be used to satisfy this core requirement. BIO 1203 Biology I CHE 1103 General Chemistry CHE 1303 Chemical Principles PHY 1603, 1611 General Physics I and Laboratory PHY 1623, 1631 General Physics II and Laboratory</td>
</tr>
<tr>
<td>Domain II: Society and Culture</td>
<td>United States History and Diversity (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. Political Studies (6 semester credit hours) Any six hours listed under this section in the list of core courses will satisfy this core requirement. Social and Behavioral Sciences (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. Economics (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td>Domain III: Literature and the Arts</td>
<td>Literature (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. The Arts (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
<tr>
<td>Domain IV: Interdisciplinary Studies</td>
<td>(3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>
Degree Requirements

A. 55 semester credit hours in preprofessional support work:

1. 25 semester credit hours in the biological sciences:
   - AHS 1883 Introduction to Clinical Laboratory Sciences
   - BIO 1203 Biology I
   - BIO 1212 Laboratory Investigations in Biology
   - BIO 2313 Genetics
   - AHS 2103 Human Biology: Physiology
     or
   - BIO 3413 General Physiology
     or
   - AHS 3463 Human Physiology
   - BIO 3513 Biochemistry
   - BIO 3713, 3722 Microbiology and Laboratory
   - BIO 4743 Immunology

2. 13 semester credit hours in chemistry:
   - CHE 1103 General Chemistry
   - CHE 1303 Chemical Principles
   - CHE 1312 Inorganic Qualitative and Quantitative Analysis
   - CHE 2203, 2242 Organic Chemistry I and Laboratory

3. 8 semester credit hours in physics:
   - PHY 1603, 1611 General Physics I and Laboratory
   - PHY 1623, 1631 General Physics II and Laboratory

4. 6 semester credit hours in mathematics:
   - MAT 1093 Precalculus
   - STA 1053 Basic Statistics

5. 3 semester credit hours in computer science

B. 60.5 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 2051, 2052 Hematology/Laboratory 5 hours
   - CLSC 2004, 2003 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 2.5 hours
   - CLSC 3070, 3071 Diagnostic Immunology/Laboratory 2.5 hours
   - CLSC 3081, 3082 Clinical Chemistry/Laboratory 4 hours
2. These courses are the senior lecture and clinical experience courses:

- **CLSC 4033** Advanced Medical Microbiology 3 hours
- **CLSC 4035** Introductory Molecular Diagnostics 1 hour
- **CLSC 4037** Microbiology Practicum 5 hours
- **CLSC 4053** Advanced Hematology 2 hours
- **CLSC 4055** Advanced Immunohematology 2 hours
- **CLSC 4057** Hematology Practicum 5 hours
- **CLSC 4067** Immunohematology Practicum 5 hours
- **CLSC 4083** Advanced Clinical Chemistry 3 hours
- **CLSC 4087** Chemistry Practicum 5 hours
- **CLSC 4092** Management I 1 hour
- **CLSC 4093** Management II 2 hours
- **ICLSC 4020** Issues in Healthcare 1 hour
- **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 59 semester credit hours of professional coursework. Prerequisite science requirements not completed as a part of the 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. 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 National League for Nursing. The program is composed of two phases. In Phase I students complete a minimum of 60 semester credit hours (two years) of prenursing course requirements available at UTSA. Phase I coursework at UTSA is approved by the Division of Life Sciences Health Related Professions Advisory Subcommittee. Phase II requires students to complete 60 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 admissions 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
Application for admission to Phase II must be made by April 1 for Fall Semester admission and October 1 for Spring Semester admission. Applicants must have an overall grade point average of 2.0 and a grade point average of 2.3 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 Academic Skills Program (TASP) test 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 60 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.

**Phase I:** 59 semester credit hours at UTSA. All courses are subject to approval by the School of Nursing when the student applies for Phase II.

A. 20 semester credit hours of natural and physical sciences:

- AHS 2083, 2091 *Human Biology: Anatomy and Laboratory* [Superscript *]
- AHS 2103, 2111 *Human Biology: Physiology and Laboratory* [Superscript *]
- AHS 1053, 1061 *Introductory Microbiology (Laboratory strongly recommended)* [Superscript *]
- CHE 1003, 1011 *General Chemistry for Allied Health Sciences (Laboratory strongly recommended)*
- CHE 1203, 1211 *Elementary Organic and Biochemistry (Laboratory strongly recommended)*

[BIO 1203 Biology I and BIO 1212 Laboratory Investigations in Biology are prerequisites to the above allied health services courses.]

B. 15 semester credit hours in the behavioral sciences:

1. PSY 1013 *Introduction to Psychology*
   - PSY 2503 *Developmental Psychology*
   - SOC 1013 *Introduction to the Study of Society*

2. 6 semester credit hours of electives

C. 24 semester credit hours in other basic requirements:

1. 6 semester credit hours required:
   - AHS 2043 *Nutrition*
   - STA 1053 *Basic Statistics (or 1063 or 1073)*

2. 18 semester credit hours of UTSA Core Curriculum requirements (for a listing of the courses that fulfill these requirements, see pages 5-10 of this catalog):
   - Rhetoric
   - American history
   - Political studies

**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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 3209</td>
<td>Introduction to Professional Nursing</td>
<td>2</td>
</tr>
<tr>
<td>NURS 3310</td>
<td>Nursing and Drug Therapy</td>
<td>3</td>
</tr>
<tr>
<td>NURS 3811</td>
<td>Nursing of Individuals with Deviations in Health Status</td>
<td>8</td>
</tr>
</tbody>
</table>

**SECOND SEMESTER, JUNIOR YEAR**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 3522</td>
<td>Nursing the Client with Mental Illness</td>
<td>5</td>
</tr>
<tr>
<td>NURS 3912</td>
<td>Nursing of Families: Childbirth, Parenting, Illness</td>
<td>9</td>
</tr>
</tbody>
</table>

**THIRD SEMESTER, SENIOR YEAR**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 4203</td>
<td>The Nurse as a Professional</td>
<td>2</td>
</tr>
<tr>
<td>NURS 4513</td>
<td>Community Health Nursing</td>
<td>5</td>
</tr>
<tr>
<td>NURS 4523</td>
<td>Nursing of Clients with Chronic Health Problems</td>
<td>5</td>
</tr>
</tbody>
</table>

**FOURTH SEMESTER, SENIOR YEAR**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 4504</td>
<td>The Nurse as Manager and Leader</td>
<td>5</td>
</tr>
<tr>
<td>NURS 4704</td>
<td>Nursing the Client with Major Health Problems</td>
<td>7</td>
</tr>
<tr>
<td>Upper-Division Electives</td>
<td>3 semester hours of electives must be in nursing</td>
<td>9</td>
</tr>
</tbody>
</table>

**B. Flexible Plan**

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 Center School of Nursing.

**FIRST SEMESTER** (courses offered by examination only)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 3327</td>
<td>Nursing of Clients with Alteration in Mental Health</td>
<td>3</td>
</tr>
<tr>
<td>NURS 3624</td>
<td>Nursing Practice: Clinical Skills</td>
<td>6</td>
</tr>
<tr>
<td>NURS 3925</td>
<td>Nursing of Adults with Health Problems</td>
<td>9</td>
</tr>
<tr>
<td>NURS 3926</td>
<td>Nursing of Children and Childbearing Women</td>
<td>9</td>
</tr>
</tbody>
</table>

**SECOND SEMESTER**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 4212</td>
<td>Professional Nursing: Health Assessment</td>
<td>2</td>
</tr>
<tr>
<td>NURS 4504</td>
<td>The Nurse as a Manager and Leader</td>
<td>5</td>
</tr>
<tr>
<td>NURS 4512</td>
<td>Professional Nursing: Health Promotion</td>
<td>5</td>
</tr>
</tbody>
</table>

**THIRD SEMESTER**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 4114</td>
<td>Professional Nursing: Research</td>
<td>1</td>
</tr>
<tr>
<td>NURS 4213</td>
<td>Professional Nursing: Issues and Ethics</td>
<td>2</td>
</tr>
<tr>
<td>NURS 4413</td>
<td>Professional Nursing: Family Focus</td>
<td>4</td>
</tr>
<tr>
<td>NURS 4513</td>
<td>Community Health Nursing</td>
<td>5</td>
</tr>
<tr>
<td>Upper-Division Electives</td>
<td>3 semester hours of electives must be in nursing</td>
<td>9</td>
</tr>
</tbody>
</table>
COURSE DESCRIPTIONS
ALLIED HEALTH SCIENCES
(AHS)

1053 Introductory Microbiology
(3-0) 3 hours credit. Prerequisites: BIO 1203 and 1212, 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 1203 and 1212, 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 1203 and 1212.
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 1203 and 1212.
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 1203 and 1212, CHE 1203 or 2203, or consent of instructor.
Physiological processes in human systems.
DIVISION OF MATHEMATICS AND STATISTICS

The Division of Mathematics and Statistics offers a Bachelor of Science degree in Mathematics. The degree is offered in three concentrations: mathematics, statistics, and general mathematical studies. The Mathematics and Statistics Concentrations offer 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 division also offers Minors in Mathematics and Statistics. Students who are not majoring or minor in mathematics or statistics but who wish to gain expertise in applied statistical methods should consult with an advisor regarding a recommended series of courses in applied statistics.

Bachelor of Science Degree in Mathematics

The Bachelor of Science degree in Mathematics is offered with three concentrations: mathematics, statistics, 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 Texas 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
</table>
| **Rhetoric** (6 semester credit hours) | All students must take the following six hours to meet this core requirement:  
ENG 1013 Freshman Composition  
ENG 1023 Discourse across the Disciplines |
| **Domain I: Mathematics and Science** | **Mathematics** (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.)  
**Science** (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. |
Mathematics Degree Requirements

All candidates for the Bachelor of Science degree in Mathematics, regardless of concentration, must complete the following 31 to 32 semester credit hours of required courses (this includes the 3 hours of the Core Curriculum requirement in mathematics):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 1073</td>
<td>Introductory Computer Programming for Scientific Applications</td>
</tr>
<tr>
<td>or</td>
<td>Introduction to Computer Science and Recitation</td>
</tr>
<tr>
<td>or</td>
<td>Computer Programming with Engineering Applications</td>
</tr>
<tr>
<td>MAT 1214</td>
<td>Calculus I (The student who is not prepared to begin MAT 1214 must take MAT 1093 Precalculus.)</td>
</tr>
<tr>
<td>MAT 1223</td>
<td>Calculus II</td>
</tr>
<tr>
<td>MAT 2213</td>
<td>Calculus III</td>
</tr>
<tr>
<td>MAT 2233</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>MAT 2243</td>
<td>Foundations of Mathematics</td>
</tr>
<tr>
<td>MAT 3213</td>
<td>Foundations of Analysis</td>
</tr>
<tr>
<td>MAT 4213</td>
<td>Real Analysis I</td>
</tr>
<tr>
<td>STA 3513</td>
<td>Probability and Statistics</td>
</tr>
<tr>
<td>STA 3523</td>
<td>Statistical Methods</td>
</tr>
</tbody>
</table>

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. 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 I

B. 6 additional semester credit hours of upper-division courses in mathematics or statistics approved by the student’s advisor.

C. 34 to 35 semester credit hours of electives

Statistics 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. 18 semester credit hours of required courses:

   MAT  3633  Numerical Analysis
   STA  3013  Multivariate Analysis for the Life and Social Sciences
   STA  3433  Applied Nonparametric Statistics
   STA  4643  Introduction to Stochastic Processes
   STA  4713  Applied Regression Analysis
   STA  4723  Design and Analysis of Experiments

B. 6 additional semester credit hours of upper-division courses in mathematics or statistics approved by the student’s advisor.

C. 31 to 32 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. 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

B. 6 semester credit hours of required academic foundations:

   COM  1043  Introduction to Communication
   3 semester credit hours of English literature
C. 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 in the Division of Mathematics and Statistics.

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 the Texas Academic Skills Program (TASP) test and acceptable scores on the state-mandated exit competency test. Complete information may be obtained in the Office of Teacher Advising, Certification, and Placement 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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1214</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MAT 1223</td>
<td>Calculus II</td>
</tr>
<tr>
<td>MAT 2213</td>
<td>Calculus III</td>
</tr>
<tr>
<td>MAT 2233</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>MAT 3613</td>
<td>Differential Equations I</td>
</tr>
</tbody>
</table>

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 undergraduate advisor in the Division of Mathematics and Statistics.

Minor in Statistics

All students pursuing the Minor in Statistics must complete 22 semester credit hours.

A. 19 semester credit hours of required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1214</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MAT 1223</td>
<td>Calculus II</td>
</tr>
<tr>
<td>MAT 2213</td>
<td>Calculus III</td>
</tr>
<tr>
<td>MAT 2233</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>STA 3513</td>
<td>Probability and Statistics</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>STA 3533</td>
<td>Probability and Random Processes</td>
</tr>
<tr>
<td>STA 3523</td>
<td>Statistical Methods</td>
</tr>
</tbody>
</table>

B. 3 semester credit hours of approved upper-division statistics electives.

To declare a Minor in Statistics, obtain advice, or seek approval of substitutions for course requirements, students should consult the undergraduate advisor in the Division of Mathematics and Statistics.
COURSE DESCRIPTIONS
MATHEMATICS
(MAT)

0103 TASP Review I
(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 Academic Skills Program (TASP), 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, and
problems with two- and three-dimensional geometric figures; and inductive and deductive reasoning skills. Course
does not count toward any degree at UTSA.

0113 TASP Review II
(3-0) 3 hours credit.
Introductory algebra course that includes the Texas Academic Skills Program (TASP) Algebra and Problem Solving
objectives. Operations with algebraic expressions; solving one- and two-variable equations; solving word problems
involving one and two variables; graphing numbers and number relationships; solving problems involving quadratic
equations. Course does not count toward any degree at UTSA.

1023 College Algebra
(3-0) 3 hours credit. Prerequisite: Satisfactory performance on placement exam.
Algebraic expressions, equations, inequalities over the real numbers, relations, functions, polynomial and rational
functions, systems of linear equations, matrices and determinants, and complex numbers. Other topics may be
included. [TCCN: MATH 1314] (Formerly MAT 1063. Credit cannot be earned for both MAT 1023 and MAT 1063.)

1033 Algebra with Calculus for Business
(3-0) 3 hours credit. Prerequisite: Satisfactory performance on placement exam.
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. [TCCN: MATH 1325.]

1093 Precalculus
(3-0) 3 hours credit. Prerequisite: MAT 1023 or the equivalent course or placement.
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: MAT 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. [TCCN: MATH 1335.]

1153 Essential Elements in Mathematics I
(3-0) 3 hours credit. Prerequisite: MAT 1023.
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.

1163 Essential Elements in Mathematics II
(3-0) 3 hours credit. Prerequisite: MAT 1153.
Statistics and probability; geometric shapes; measurement; coordinate and transformational geometry. May not be
applied toward a major in mathematics.
1214 Calculus I
(4-0) 4 hours credit. Prerequisite: MAT 1093 or an equivalent course or placement.
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.
Vector spaces and matrix algebra, matrices and determinants, characteristic values of matrices, and reduction to canonical forms. Emphasis on applications. [TCCN: MATH 2318.]

2243 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.

3123 Fundamentals of Geometry
(3-0) 3 hours credit. Prerequisite: MAT 1214 and MAT 2243.
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. in Mathematics.

3213 Foundations of Analysis
(3-0) 3 hours credit. Prerequisite: MAT 1214 and MAT 2243.
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 either 3213 or consent of instructor.
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. Prerequisite: MAT 1214 and MAT 2243.
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 equations, Laplace transforms, linear algebra, and matrix arithmetic.
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, nth-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.

4013 Graphing Calculator Topics
(3-0) 3 hours credit. Prerequisite 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 General Mathematics Studies Concentration of the B.S. 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. 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. in Mathematics.

4213 Real Analysis I
(3-0) 3 hours credit. Prerequisite: MAT 3213.
Continuous functions, uniform continuity; theory of differentiation; applications of the derivatives to properties of functions; antiderivatives; Riemann integral; connection between differentiation and integration.

4223 Real Analysis II
(3-0) 3 hours credit. Prerequisite: MAT 4213.
Lebesque integral on the real line; n-dimensional spaces; vectors; calculus of functions of several variables; multidimensional integration.
4233  Modern Abstract Algebra I
(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 2243.
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.

4913  Independent Study
3 hours credit. Prerequisites: Permission in writing (form available) of the instructor, the student’s advisor, the 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, 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
STATISTICS
(STA)

1053  Basic Statistics
(3-0) 3 hours credit. Prerequisite: Satisfactory performance on placement exam.
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.]

1063  Basic Statistics for Business and Economics
(3-0) 3 hours credit. Prerequisite: MAT 1033.
Fundamental concepts and procedures of statistics and probability with business applications. Includes descriptive statistics, estimation, hypothesis testing, and simple linear regression and correlation. (Formerly STA 1064. Credit cannot be earned for both STA 1063 and 1064.)
1073 Statistics for Psychology
(3-0) 3 hours credit. Prerequisites: MAT 1023 or MAT 1033 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.

1993 Statistical Methods for the Life and Social Sciences
(3-0) 3 hours credit. Prerequisite: STA 1053 or STA 1063 or STA 1073, and MAT 1023 or MAT 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.

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. (Formerly EGR 2303. Credit cannot be earned for both STA 2303 and EGR 2303.)

3013 Multivariate Analysis for the Life and Social Sciences
(3-0) 3 hours credit. Prerequisite: STA 1993 or STA 3513.
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: STA 1993 or STA 3513.
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: STA 1993 or STA 3523.
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 or STA 3533.
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 EE2323 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.

3813 Discrete Data Analysis and Bioassay
(3-0) 3 hours credit. Prerequisite: STA 1993 or STA 3523.
Methods especially useful for problems arising in the life sciences: analysis of count data, contingency tables, and Probit and Logit analysis.
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: STA 1993 or STA 3523. 
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: STA 1993 or STA 3523. 
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 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.

4903  **Survival Analysis**  
(3-0) 3 hours credit. Prerequisite: STA 1993 or 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) of the instructor, the student’s advisor, the 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, 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 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.
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Division of Criminal Justice</td>
<td>403</td>
</tr>
<tr>
<td>B.A. in Criminal Justice</td>
<td>403</td>
</tr>
<tr>
<td>Minor in Legal Studies</td>
<td>410</td>
</tr>
<tr>
<td>Division of Public Administration</td>
<td>412</td>
</tr>
<tr>
<td>Minor in Public Administration</td>
<td>412</td>
</tr>
</tbody>
</table>
CHAPTER 7
COLLEGE OF URBAN PROFESSIONAL PROGRAMS

DIVISION OF CRIMINAL JUSTICE

The Division of Criminal Justice offers a Bachelor of Arts degree in Criminal Justice, which is intended to provide the opportunity for a comprehensive study of criminal justice, with emphases in law enforcement, corrections-juvenile justice, legal studies, or security management. 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. The Division also offers a minor in Legal Studies, which provides the student with an opportunity to examine the foundations, operations, and impact of the law in society from multidisciplinary and interdisciplinary perspectives. This minor is designed to facilitate the development of an enriched background in legal studies for students planning to pursue law-related higher education or careers.

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 enable them to become fundamentally aware 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 5-10 of this catalog.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Courses that Satisfy Core Curriculum and Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhetoric (6 semester credit hours)</td>
<td>All students must take the following six hours to meet this core requirement: ENG 1013 Freshman Composition ENG 1023 Discourse across the Disciplines</td>
</tr>
<tr>
<td>Domain I: Mathematics and Science</td>
<td><strong>Mathematics</strong> (3 semester credit hours) Any three hours listed under this section in the list of core courses will satisfy this core requirement. <strong>Science</strong> (6 semester credit hours) Three hours from Level One and three hours from Level Two will satisfy this core requirement.</td>
</tr>
</tbody>
</table>
### Degree Requirements

A. 30 to 33 semester credit hours of criminal justice coursework:

1. 15 semester credit hours:

   - CRJ 1113 The American Criminal Justice System
   - CRJ 2153 Nature of Crime and Justice
   - CRJ 3013 Research Methods in Criminal Justice
   - CRJ 3213 Administrative Organization
   - CRJ 3623 Substantive Criminal Law
     or
   - CRJ 4633 Criminal Procedure

2. 3 semester credit hours of policy studies selected from the following:

   - CRJ 4313 Minorities and Women in the Criminal Justice System
   - CRJ 4453 Drugs, Drug Laws, and Crime
   - CRJ 4643 Organized Crime
   - CRJ 4653 White Collar Crime
   - CRJ 4753 Criminal Justice Policy-making
   - CRJ 4853 Sex Crimes and the Law

<table>
<thead>
<tr>
<th>Domain II: Society and Culture</th>
<th>United States History and Diversity (6 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any six hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain III: Literature and the Arts</th>
<th>Literature (3 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain IV: Interdisciplinary Studies</th>
<th>(3 semester credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any three hours listed under this section in the list of core courses will satisfy this core requirement.</td>
</tr>
</tbody>
</table>
3. 9 semester credit hours from one of the following areas of emphasis:

**Law Enforcement**

<table>
<thead>
<tr>
<th>CRJ</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJ</td>
<td>2213</td>
<td>Introduction to Policing</td>
</tr>
<tr>
<td>CRJ</td>
<td>3233</td>
<td>Introduction to Forensic Science</td>
</tr>
<tr>
<td>CRJ</td>
<td>4123</td>
<td>Concepts of Investigation</td>
</tr>
<tr>
<td>CRJ</td>
<td>4413</td>
<td>Contemporary Police Practices</td>
</tr>
<tr>
<td>CRJ</td>
<td>4423</td>
<td>Issues in Law Enforcement Administration</td>
</tr>
</tbody>
</table>

**Corrections-Juvenile Justice**

<table>
<thead>
<tr>
<th>CRJ</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJ</td>
<td>2513</td>
<td>Corrections: Theory and Practice</td>
</tr>
<tr>
<td>CRJ</td>
<td>3533</td>
<td>Correctional Alternatives</td>
</tr>
<tr>
<td>CRJ</td>
<td>3563</td>
<td>Juveniles and the Law</td>
</tr>
<tr>
<td>CRJ</td>
<td>4573</td>
<td>Correctional Administration</td>
</tr>
<tr>
<td>CRJ</td>
<td>4613</td>
<td>Correctional Counseling and Services</td>
</tr>
<tr>
<td>CRJ</td>
<td>4623</td>
<td>Special Correctional Populations</td>
</tr>
</tbody>
</table>

**Legal Studies**

<table>
<thead>
<tr>
<th>CRJ</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJ</td>
<td>2813</td>
<td>Introduction to Courts and the Legal System</td>
</tr>
<tr>
<td>CRJ</td>
<td>3603</td>
<td>Paralegal Management Practices</td>
</tr>
<tr>
<td>CRJ</td>
<td>3613</td>
<td>Legal Research and Writing</td>
</tr>
<tr>
<td>CRJ</td>
<td>3623</td>
<td>Substantive Criminal Law (if not used to fulfill requirements in section A.1)</td>
</tr>
<tr>
<td>CRJ</td>
<td>3633</td>
<td>Trial and Evidence</td>
</tr>
<tr>
<td>CRJ</td>
<td>4633</td>
<td>Criminal Procedure (if not used to fulfill requirements in section A.1)</td>
</tr>
<tr>
<td>CRJ</td>
<td>4803</td>
<td>Advanced Studies in Law, Courts, and the Legal System</td>
</tr>
<tr>
<td>CRJ</td>
<td>4823</td>
<td>Judicial Administration</td>
</tr>
</tbody>
</table>

**Security Management**

<table>
<thead>
<tr>
<th>CRJ</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJ</td>
<td>2163</td>
<td>Introduction to Security Management</td>
</tr>
<tr>
<td>CRJ</td>
<td>3193</td>
<td>Security Management Practices</td>
</tr>
<tr>
<td>CRJ</td>
<td>4213</td>
<td>Legal Issues in Security Management</td>
</tr>
<tr>
<td>CRJ</td>
<td>4733</td>
<td>Intelligence Programs and National Security</td>
</tr>
</tbody>
</table>

4. 3 to 6 semester credit hours of CRJ 4933-6 Internship in Criminal Justice taken in consultation with the student's faculty advisor. 3 to 6 semester credit hours of appropriate upper-division coursework may be taken in lieu of the internship if a student has documented equivalent employment in a criminal justice position.

B. 15 semester credit hours of upper-division support work chosen in consultation with the student's advisor

C. 33 semester credit hours of electives
COURSE DESCRIPTIONS
CRIMINAL JUSTICE
(CRJ)

1001  Freshman Topics in Criminal Justice
(1-1) 1 hour credit.
Required for entering freshmen in the College of Urban Professional Programs with less than 15 hours of coursework
and who are interested in majoring in Criminal Justice. Critical study of topics in criminal justice. 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.

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.)

2163  Introduction to Security Management
(3-0) 3 hours credit.
Survey of security management in business, industry, and government; issues affecting the relationship between
publicly funded law enforcement and the private sector; theory of public and private protection responsibilities.
(Formerly CRJ 3163. Credit cannot be earned for both CRJ 2163 and CRJ 3163.)

2213  Introduction to Policing
(3-0) 3 hours credit.
An introduction to the history of law enforcement, contemporary policing practices and technologies, 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 Methods in Criminal Justice
(3-0) 3 hours credit. Prerequisite: Completion of MAT 1023 or MAT 1063.
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.)
3193  Security Management Practices  
(3-0) 3 hours credit.  
A study of the application of physical, personnel, and information security practices. Theory and application of physical protection, employee integrity programs, and information control measures. Management perspectives on security program planning, integration, and implementation.

3213  Administrative Organization  
(3-0) 3 hours credit. Prerequisite: CRJ 1113 or the equivalent.  
Theories and applications in the study of criminal justice organizations. Examination of traditional and innovative approaches to justice delivery in public and private agencies.

3233  Introduction to Forensic Science  
(3-0) 3 hours credit. Prerequisite: Completion of CRJ 1113 or the equivalent.  
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.)

3533  Correctional Alternatives  
(3-0) 3 hours credit.  
A study of probation, parole, and other community-based correctional programs. Examines policies and procedures, methods of selection and prediction, management and supervision styles, and evaluative research on their effectiveness.

3563  Juveniles and the Law  
(3-0) 3 hours credit.  
This course focuses on the needs and problems of neglected and dependent youth, status offenders, and delinquents in the justice system. The course will survey the history and philosophy of juvenile justice, judicial processing of juveniles, and dispositional alternatives for youthful offenders. (Formerly CRJ 3543. Credit cannot be earned for both CRJ 3563 and CRJ 3543.)

3603  Paralegal Management Practices  
(3-0) 3 hours credit.  
Examines the role and function of paralegal management practices in a variety of organizational settings. Integration of theory and practice is emphasized.

3613  Legal Research and Writing  
(3-0) 3 hours credit.  

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.

4123  Concepts of Investigation  
(3-0) 3 hours credit. Prerequisite: CRJ 3233.  
Examination of theories and practices of the investigation process in the criminal justice system; specific operational techniques; and application of innovative techniques.
4213 Legal Issues in Security Management
(3-0) 3 hours credit. Prerequisite: CRJ 2163 or the equivalent.
A comprehensive study of the legal issues affecting the management and operations of private and government
security organizations (e.g., premises liability and other tort issues, employee dismissals for cause, intellectual
property theft, arrest/detention and search actions, private use of force, guard force contracting, truth verification
practices, and national security).

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 the criminal justice system.

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.

4423 Issues in Law-Enforcement Administration
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
The major issues confronting law-enforcement administration are examined, including those related to personnel,
technological change, personnel usage, civil liability, and programs designed to improve the delivery of law-
enforcement services.

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.

4573 Correctional Administration
(3-0) 3 hours credit. Prerequisite: CRJ 2513, 3213, or the equivalent.
An examination of the administrative, organizational, and management issues affecting agencies that provide
institutional and field supervision of adult offenders. Review of current theoretical, legal, social, and operational
trends, including privatization, crowding, the role of public policy objectives, constitutional and professional
standards for operation, and liability of corrections personnel.

4613 Correctional Counseling and Services
(3-0) 3 hours credit.
The role and techniques of counseling and interviewing in correctional programs. Study of service delivery programs
tailored to the specific needs of the correctional clients. Recommended for all students who plan to engage in the
counseling, advising, and interviewing of offenders, victims, or justice system employees.

4623 Special Correctional Populations
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An examination of distinct offender subgroups, including mentally ill, developmentally delayed, drug-addicted, and
HIV-infected offenders, who present special treatment, management, or policy-related concerns in corrections
settings. The course will also explore the needs of female and aged offenders.

4633 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.)

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.

4733 Intelligence Programs and National Security  
(3-0) 3 hours credit.  
Examines a wide range of issues concerning intelligence and national security. Emphasis is given to the vote of intelligence organizations in domestic and foreign environments, including legislative and regulatory controls on such organizations.

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.

4753 Criminal Justice Policy-making  
(3-0) 3 hours credit.  
Examines the response of law and the justice system to crime and violence. Emphasis is given to the origins, incentives, conditions, organizations, initiatives, and outcomes involved in criminal justice policy-making.

4763 Great Controversies in American Justice  
(3-0) 3 hours credit.  
An intensive study of major legal and social controversies in American justice, both historical and contemporary. Emphasis is given to framing factual events, laws, administrative decisions and policies, and judicial holdings in terms of relevant concepts, theories, and justice models.

4803 Advanced Studies in Law, Courts, and the Legal System  
(3-0) 3 hours credit. Prerequisites: Upper-division standing and CRJ 2813 or consent of the instructor.  
Readings from fiction, history, sociology, and anthropology that illuminate English Common Law and its American adaptations. Judicial selection and tenure. Supreme Court process, the links between judicial review and judicial restraint, and the role of the judiciary in creating as well as reflecting social change. May address contemporary controversies before the courts. This course contains a substantial writing requirement.

4823 Judicial Administration  
(3-0) 3 hours credit.  
Examination of the role of state courts in the criminal justice system. Topics may include sources and limitations of state judicial administration, relations between state and federal courts, administrative reorganization of state courts, court finances, major court services, and the future of state courts. Special attention will be given to state courts of Texas.
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.

4913  Independent Study
3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student’s advisor, the 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.

4933,6  Internship in Criminal Justice
3 or 6 hours credit. Prerequisites: CRJ 2153; CRJ 3213 and either 3623 or 4633; at least one course in area of emphasis; consent of academic advisor and internship coordinator.
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.

Minor in Legal Studies

All students pursuing a Minor in Legal Studies must complete 21 semester credit hours, at least 12 of which must be at the upper-division level.

A.  9 semester credit hours of required courses:

LGS 2013  Introduction to Legal Studies
LGS 3013  Legal Research
LGS 4013  Issues in Law and Society

B.  12 additional semester credit hours (at least 9 of which must be at the upper-division level) from the following list, in at least two disciplines other than the student’s major:

BLW 3013  Business Law
BLW 4953  Special Studies in Business Law
CRJ 2813  Introduction to Courts and the Legal System
CRJ 4743  Crime in Fiction
CRJ 4763  Great Controversies in American Justice
CRJ 4803  Advanced Studies in Law, Courts, and the Legal System
HIS 3093  United States Constitutional History
HIS 3183  Law and American Development
POL 3023  Civil Liberties in American Law and Practice
POL 2623  Law and Society
POL 3323  Constitutional Law
POL 4153  Seminar in Jurisprudence
LGS 4913  Independent Study
LGS 4933  Internship in Legal Studies

To declare a Minor in Legal Studies or to obtain advice, information, or approvals for course requirement substitutions, students should consult the undergraduate advisor in the Division of Criminal Justice.

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
(3-0) 3 hours credit.
Provides students with the opportunity to explore the modes and sources of legal research.

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.

4913  Independent Study
3 hours credit. Prerequisites: Permission in writing (form available) from the instructor, the student’s advisor, the director of the Division of Social and Policy Sciences and dean of the College of Urban Professional Programs. Independent reading, research, discussion, and writing under direction of a faculty member. 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 and faculty supervisor. Supervised experience relevant to legal studies within selected community organizations. A maximum of 3 semester credit hours may be applied to the minor.
DIVISION OF PUBLIC ADMINISTRATION

Currently, the Division of Public Administration only offers a minor in Public Administration, which is designed to work in tandem with many other majors. A Minor in Public Administration, in combination with a student’s major, may enhance employment marketability in the private or public sector.

Minor in Public Administration

All students pursuing a Minor in Public Administration must complete 18 semester credit hours, 9 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 Methods in Criminal Justice
   ECO 3123 Forecasting Techniques in Business and Economics
   GRG 3323 Spatial Analysis
   POL 2703 Scope and Methods of 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
   POL 3023 Civil Liberties in American Law and Practice
   POL 2623 Law and Society
   POL 3323 Constitutional Law
   SOC 3173 Economy and Society
   SSC 3303 Economy and Polity

D. 9 additional semester hours selected from the following:

   IS 3003 Principles of Information Systems for Management
   MGT 3013 Introduction to Organization Theory, Behavior, and Management
   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
   POL 3713 Comparative Systems of Public Administration
   POL 3723 Ethics in Government
   POL 3733 Urban Human Resources Policy
   POL 4323 Administrative Law
   SOC 3103 Complex Organizations
   SSC 3253 Race, Ethnicity, and Public Policy
   SSC 4373 Program Evaluation

*May be used to satisfy the Core Curriculum requirement in Domain IID. 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.

To declare a Minor in Public Administration, obtain advice, or seek approval of substitutions for course requirements, students should consult the undergraduate advisor in the Division of Public Administration.
UNIVERSITY HONORS PROGRAM

The mission of the University Honors Program 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 fields. Thus, the University Honors Program offers qualified students an enhanced curriculum which includes specialized interdisciplinary seminars on a variety of topics and opportunities for advanced research in their major fields. The program also offers special honors sections of Core Curriculum courses.

To graduate with University Honors, students must complete an honors thesis and take a minimum of 25 semester credit hours of honors courses, including at least 6 semester credit hours of Honors Seminars (courses numbered HON 3203 through HON 3233), 3 semester credit hours of IDS 2203 or IDS 2213, and 1 semester credit hour of HON 3501. Juniors and seniors may earn honors credit for HON 4993 or other comparable Honors Thesis courses in their major. Seniors may receive honors credit for taking a graduate course in their major.

COURSE DESCRIPTIONS

HONORS (HON)

1011 Introductory Preceptorial
(1-0) 1 hour credit. Prerequisite: Concurrent or prior enrollment in the appropriate 1000-level class and enrollment in the University Honors Program or consent of instructor.
A special Honors discussion section designed to accompany 1000-level classes. May be repeated for credit when topics vary.

1201 Honors Community Service
1 hour credit. Prerequisite: Enrollment in the University Honors Program 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.

2001 Intermediate Preceptorial
(1-0) 1 hour credit. Prerequisite: Concurrent or prior enrollment in the appropriate 2000-level class and enrollment in the University Honors Program or consent of instructor.
A special Honors discussion section designed to accompany 2000-level classes. May be repeated for credit when topics vary.

3021 Honors Essay Writing
1 hour credit. Prerequisite: ENG 1013 and ENG 1023 and enrollment in the University Honors Program 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: Concurrent or prior enrollment in the appropriate upper-division class and enrollment in the University Honors Program 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 Program 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 Program 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 Program 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 Program 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 Program 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 Program 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 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 Program 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 Program 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 Program 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.
CORE CURRICULUM COURSES

COURSE DESCRIPTIONS

CORE

(COR)

2203  Topics in the Social and Behavioral Sciences
(3-0) 3 hours credit.
An organized course focusing on a topic in the social and behavioral sciences. Topics will vary. Not more than 3
semester credit hours in COR Topics courses may be taken to satisfy Core Curriculum requirements in Domain IIC.

2213  Engineering and Civilization
(3-0) 3 hours credit.
Technology and engineering as central features of modern world civilization. Topics treated in a historical framework
may include the relationship between technology and science; the Industrial Revolution; technology, society, politics,
and ethics in the nineteenth and twentieth centuries; and the rise of the engineering profession.
PREPROFESSIONAL COURSES OF STUDY IN LAW, MEDICINE, OR BUSINESS

UTSA does not offer specific prelaw, premedical, predental, or prenursing programs. 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.

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.** Most law schools do not recommend or encourage students to concentrate in a particular area or discipline, although they do recommend that students acquire certain skills during their undergraduate career. Since these vary from school to school, students should be familiar with the requirements and preferences of the particular school or schools to which they intend to apply. That information can be obtained from the collection of current catalogs and directories for law schools in Texas and throughout the United States available through UTSA's Prelaw Advisory Committee. Information on the procedures for admission to law schools and the Law School Admission Test (LSAT) is also available from the committee. Appointments to consult with members of the committee may be made through the Division of Social and Policy Sciences or the Division of Behavioral and Cultural Sciences.

**Preparation for 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 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 summer or fall application for admission.

Students are encouraged to consult with the chairperson of the Health Professions Advisory Committee in the Division of Life Sciences early in their college career for advisement and information concerning professional school requirements. The committee chair also should be consulted concerning the written evaluation that must be submitted for each applicant.

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.

**Preparation for 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 223-226 in this catalog) are representative of admission requirements for most other American nursing schools. A minimum of 60 semester credit hours is required, including 6 semester credit hours of college English, 9 hours in behavioral sciences, 12 hours in history and government, 3 hours in statistics, and 18 hours in natural sciences which must include chemistry, anatomy, physiology, microbiology, and nutrition.

Additional information and advisement may be obtained from the chairperson of the Health Professions Advisory Committee in the Division of Life Sciences.
3-4 Dental Early Admission Program. 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 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. A list of the requirements for acceptance into the program and for its completion are available in the Division of Life Sciences.

Preparation for Graduate Study in Business. Nonbusiness majors who are interested in pursuing an M.B.A. 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.
COLLEGE OF BUSINESS

DIVISION OF ACCOUNTING AND INFORMATION SYSTEMS

PROFESSORS

Russell F. Briner, B.B.A., Texas Tech University; M.B.A., Texas A&M University; Ph.D., Oklahoma State University
Bruce Bublitz, B.S., Illinois State University; M.A.S., Ph.D., University of Illinois
James F. Gaertner, B.A., M.B.A., Sam Houston State University; Ph.D., Texas A&M University
James E. Groff, B.A., University of Iowa; M.B.A., Stetson University; Ph.D., University of Iowa
Susan L. Nordhauser, B.A., Cornell University; M.S., Purdue University; Ph.D., University of Texas at Austin

ASSOCIATE PROFESSORS

R. Mark Alford, B.B.A., M.B.A., Ph.D., Texas A&M University
Chak-Tong Chau, B.B.A., M.A., Stetson University; Ph.D., Florida State University
Jan Guynes Clark, B.S., The University of Texas Health Science Center; M.B.A., Ph.D., University of North Texas
Glenn B. Dietrich, B.S., University of Missouri; M.B.A., University of Texas at San Antonio; Ph.D., University of Texas at Austin
Martha A. Fasci, B.S., Our Lady of the Lake University; M.B.A., University of North Texas; Ph.D., University of Texas at Austin
Cheryl L. Fulkerson, B.S., Colorado State University; M.B.A., Pittsburgh State University; Ph.D., Oklahoma State University
Fred Nordhauser, B.S., Cornell University; M.S., Ph.D., Purdue University
Marshall K. Pitman, B.S., M.B.A., Eastern Illinois University; Ph.D., University of Mississippi
Robin R. Raadtke, B.S., Marquette University; Ph.D., University of Florida
V. Srinivasan Rao, B.T., Indian Institute of Technology; M.S., Colorado School of Mines; Ph.D., University of Texas at Austin
D. Elaine Sanders, B.B.A., Eastern New Mexico University; M.Acc., Ph.D., University of Oklahoma
Ted D. Skekel, B.S., Florida State University; Ph.D., University of Oregon
Diane B. Walz, B.A., St. Louis University; M.B.A., Washington University; Ph.D., University of Texas at Austin
Sandra T. Welch, B.S., Texas Woman’s University; M.P.A., University of Texas at San Antonio; Ph.D., Texas A&M University

ASSISTANT PROFESSOR

Scott B. Jackson, B.S., M.S., San Diego State University; Ph.D., University of Nebraska-Lincoln

DIVISION OF ECONOMICS AND FINANCE

PROFESSORS

Robert A. Collinge, B.A., M.A., Ph.D., University of Maryland
Lynda Y. de la Viña, B.A., University of Texas-Pan American; M.A., Ph.D., Rice University
Daniel R. Hollas, B.B.A., University of Houston; M.A., Ph.D., University of Illinois
Lalatendu Misra, C.M.E., Utkal University, India; M.B.A., Ph.D., University of Texas at Austin
Ronald C. Rutherford, B.A., M.S., Valdosta State College; M.B.A., Ph.D., University of Georgia
Dale B. Truett, B.A., Purdue University; M.A., Ph.D., University of Texas at Austin
Lila J. Truett, B.A., Kansas State University; M.A., Ph.D., University of Iowa
ASSOCIATE PROFESSORS

Ronald M. Ayers, B.S., M.A., University of New Orleans; Ph.D., Tulane University
Winfield P. Betty, B.A., M.B.A., University of Texas at Austin; Ph.D., University of North Texas
Keith Wm. Fairchild, B.A., Ph.D., University of Texas at Austin
Fathali Firouzi, M.B.A., Oklahoma City University; M.S., Ph.D., University of Oklahoma
Palani-Rajan Kadapakkam, B.S., Loyola College, India; Ph.D., University of Michigan; Postgraduate Diploma in Management, Indian Institute of Management
Saeid Mahdavi, B.A., National University of Iran; M.A., Ph.D., University of California, Santa Barbara
John D. Merrifield, B.S., California Polytechnic State University; M.A., University of Illinois; Ph.D., University of Wyoming
Rodolpho Sandoval, B.B.A., Texas A&I University; J.D., Texas Southern School of Law; M.A., Notre Dame University; L.L.M., Harvard Law School
Thomas A. Thomson, B.S.F., University of British Columbia; M.S., Virginia Polytechnic Institute; Ph.D., University of California at Berkeley; Ph.D., University of Michigan
Kenneth E. Weiher, B.A., College of William and Mary; M.A., Ph.D., Indiana University
Su Zhou, B.S., Shanghai Jiao Tong University; M.S., Ph.D., University of Arizona

ASSISTANT PROFESSORS

Karan Bhanot, B.S.E.E., Punjab Engineering College, India; M.B.A., Indian Institute of Management; Ph.D., University of Iowa
Justino De La Cruz, B.S., National Polytechnic Institute; M.S., Ph.D., Iowa State University
Ako Doffou, B.S., Ecole Superieure d’Ingenieurs en Genie Electrique; M.S., Ecole Superieure d’Electricite; M.B.A., INSEAD, Fountainebleau, France; Ph.D., University of Georgia

DIVISION OF MANAGEMENT AND MARKETING

PROFESSORS

Donde P. Ashmos, B.A., Southern Methodist University; M.Ed., University of North Texas; Ph.D., University of Texas at Austin
Dennis J. Duchon, M.B.A., University of Houston, Clear Lake; Ph.D., University of Houston, University Park
Jerome P. Keating, B.S., M.A., Ph.D., University of Texas at Arlington
Joel G. Saegert, B.A., Ph.D., University of Texas at Austin

ASSOCIATE PROFESSORS

Lance E. Broughters, B.S., Ohio State University; M.A., Memphis State University; Ph.D., Florida State University and University of Florida
William T. Flannery, B.S., M.S., Ph.D., University of Houston
Juan J. Gonzalez, B.S., Universidad Nacional Autónoma de México; M.I.B.S., Ph.D., University of South Carolina
Kelley L. Jones, B.A., Bowie State University; M.A., Ph.D., Ohio University
Robert H. Lengel, B.S., Pennsylvania State University; M.B.A., M.S., Rensselaer Polytechnic Institute; Ph.D., Texas A&M University
John P. McCray, B.A., Chapman College; M.B.A., Northwestern Louisiana State University; Ph.D., Texas A&M University
William G. Mitchell, B.A., University of Chicago; Ph.D., Arizona State University
Gary C. Raffaele, B.S., State University of New York; M.B.A., University of Texas at Austin; D.B.A., Harvard University
Woodie A. Spivey, B.A.E., Georgia Institute of Technology; M.M.S., Texas Christian University; Ph.D., University of Houston
Minghe Sun, B.S., Northeast University of Technology; M.B.A., Chinese University of Hong Kong; Ph.D., University of Georgia
Raydel Tullous, B.A., M.M.S., Texas Christian University; Ph.D., University of Santa Clara
Richard L. Utecht, B.B.A., M.B.A., Texas A&I University; Ph.D., University of North Texas
Richard B. Wadsworth, B.S., Texas A&M University; M.S., Ph.D., University of Arizona
ASSISTANT PROFESSORS

**Dennis B. Arnett**, B.A., Occidental College; M.A., United States International University; Ph.D., Texas Tech University

**Thomas F. Cannon**, B.S., M.A., Western Michigan University; J.D., South Texas College of Law

**John W. Huonker**, B.A., M.B.A., New York University; Ph.D., University of Arizona

**Mark T. Leung**, B.A., M.B.A., University of California; M.B., Indiana University; Ph.D., Indiana University

**John W. Story**, B.B.A., M.S., Texas A&M University; Ph.D., University of Colorado

**Bennie J. Wilson, III**, B.S., San Jose State College; M.B.A., University of Rochester; Ed.D., Auburn University

**Kathy L. Wohlert**, B.A., M.A., San Francisco State College; Ph.D., University of Texas at Austin

**Kefeng Xu**, B.E., Shanghai Jiao-Tong University; M.S.B.A., University of British Columbia; Ph.D., University of Maryland
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT

DIVISION OF EDUCATION

PROFESSORS EMERITI

Gillian E. Cook, B.A., Sir George Williams University; Ed.M., Ed.D., Harvard University
Dewey D. Davis, B.S., Edinboro State College; M.Ed., Ph.D., University of Texas at Austin
Wayne W. Laughery, B.A., M.A., San Diego State College; Ed.D., Columbia University Teachers College
Marian L. Martinello, B.S., M.S., Queens College; Ed.D., Teachers College, Columbia University
Berry Sutherland, B.S., University of Texas at Austin; M.S., Ed.D., University of Houston
James W. Wagener, B.A., Southern Methodist University; M.A., Ph.D., University of Texas at Austin
Sue C. Wortham, B.S., University of Houston; M.A., Southwest Texas State University; Ph.D., University of Texas at Austin

PROFESSORS

Christopher A. Borman, B.S., Ed.D., Indiana University; M.A., Northwestern University
Raymond L. Calabrese, B.A., Gellarmine College; M.Ed., Bridgewater State College; Ed.D., University of Massachusetts
Richard A. Diem, B.S., Bradley University; M.S., Southern Illinois University; M.A., Colorado State University; Ph.D., Northwestern University
David Hinojosa, B.S., M.S., Texas A&I University; Ed.D., University of Houston
Rosalind Horowitz, B.S., M.A., Ph.D., University of Minnesota
David S. Katims, B.A., University of South Florida; M.S., Barry University; Ed.D., Boston University
Miriam G. Martinez, B.A., University of Alabama; M.A., Ph.D., University of Texas at Austin
Raymond Padilla, B.A., University of Michigan; M.A., Ph.D., University of California at Berkeley
Bertha Pérez, B.S., M.Ed., Our Lady of the Lake University; Ed.D., University of Massachusetts at Amherst
Paul H. Westmeyer, B.S., M.A., Ball State University; Ed.D., University of Illinois
Jesse T. Zapata, A.A., San Antonio College; B.A., University of Texas at Austin; M.Ed., Texas Tech University; Ph.D., Arizona State University

ASSOCIATE PROFESSORS

Ronnie N. Alexander, B.S., M.Ed., Central State University; Ed.D., University of Kansas
Blandina Cardenas, B.A., University of Texas at Austin; Ed.D., University of Massachusetts
Larry B. Golden, B.Ed., University of Miami; M.S., City University of New York; Ph.D., Arizona State University
Barbara M. Gonzalez-Pino, B.A., M.A., Ph.D., University of Texas at Austin
Wanda B. Hedrick, B.S., Liberty University; M.Ed., A&T University; Ph.D., University of North Carolina at Chapel Hill
Arthur E. Hernandez, M.A., St. Mary’s University; M.A., University of Texas at San Antonio; Ph.D., Texas A&M University
Nancy K. Martin, B.A., M.Ed., Sam Houston State University; Ed.D., Texas Tech University
Betty Merchant, B.S., M.S., State University of New York at Plattsburg; Ph.D., Stanford University
Kathleen Cage Mittag, B.S., M.S., Texas A&I University; Ph.D., Texas A&M University
John M. Morris, B.A., M.A., M.S., Ph.D., University of Texas at Austin
Carolyn M. Orange, B.A., Harris Teachers College; M.A., Ph.D., Washington University
Alan Shoho, B.S.E.E., California State University; M.Ed., University of Hawaii; Ed.D., Arizona State University
David Thompson, B.S., M.S., Ph.D., Texas A&M University
Anthony K. Van Reusen, B.A., M.A., Arizona State University; Ph.D., University of Kansas
Suzanne M. Winter-Rausch, B.S., Southwest Texas State University; M.S., Corpus Christi State University; Ph.D., University of Texas at Austin
Kenneth W. Wunderlich, B.A., Ph.D., University of Texas at Austin
Zenong Yin, B.Ed., Beijing Institute of Physical Education; M.A., Ph.D., University of Southern California
ASSISTANT PROFESSORS

Mary Frances Agnello, B.A., University of Texas at Austin; M.S.Ed., Ph.D., Texas A&M
Amie M. Beckett, B.S., M.A., Ph.D., University of Texas at Austin
Fred Bonner, B.A., University of North Texas; M.S.Ed., Baylor University; Ed.D. University of Arkansas-Fayetteville
Felicia Briscoe, B.S., M.A., University of Nevada, Las Vegas; Ed.D., University of Cincinnati
Blanche A. Desjean-Perotta, B.A., Anna Maria College; M.Ed., University of Southern Alabama, Ed.D., University of Arizona
Marcheta Evans, B.S., M.A., M.Ed., Ph.D., University of Alabama
Belinda B. Flores, B.A., M.A., University of Texas at San Antonio; Ph.D., University of Texas at Austin
Juanita Garcia-Wagstaff, B.S., Texas Women’s University; M.Ed., North Texas State University; Ph.D., The Ohio State University
Michael Gaubatz, B.S., M.Ed., University of Missouri; M.A., St. Louis University; Ph.D., Loyola University
Janis Harmon, B.A., M.Ed., University of Southwest Louisiana; Ph.D., Ohio State University
Curtis Hart, B.A., Central University of Iowa; M.S., Iowa State University; Ed.D., Oklahoma State University
Paul Jacobs, B.S., University of Alabama-Tuscaloosa; M.S., University of North Carolina-Greensboro; Ph.D., University of Texas at Austin
Georgia Johnston, B.S., M.S., Boise State University; Ph.D., University of Texas at Austin
Diana Mason, B.A., University of Texas at Austin; M.S., East Texas State University; Ph.D., University of Texas at Austin
Patricia McGee, B.A., M.A., University of Texas at San Antonio; Ph.D., University of Texas at Austin
Suzanne Moore, B.A., State University of New York at Potsdam; M.Ed., St. Lawrence University; Ph.D., St. Mary’s University
L. Earle Reybold, B.A., M.A., Ph.D., The University of Georgia
Mari Riojas-Cortez, B.A., St. Mary’s University; M.A., University of Texas at San Antonio; Ph.D., University of Texas at Austin
Todd Ryska, B.A., Duke University; M.A., Pepperdine University; M.S., Ph.D., University of Southern California
Leann Steinmetz, B.S., Southwest Texas State University; M.S., Texas A&M University-Corpus Christi; Ph.D., University of New Mexico-Albuquerque
Susan K. Strecker, B.A., De Pauw University; M.Ed., Southwest Texas University; Ph.D., University of Texas at Austin
Wan Xiang Yao, B.S., M.S., Beijing Institute of Physical Education; Ph.D., Auburn University
John Qiang Zhang, B.S., Shandong Teachers' University; M.S. Springfield College; Ph.D., University of Missouri-Columbia

DIVISION OF BICULTURAL-BILINGUAL STUDIES

PROFESSORS EMERITI

Rodolfo Jacobson, M.A., Ph.D., University of Michigan
Carolyn L. Kessler, B.A., St. Mary-of-the-Woods College; M.S., Ph.D., Georgetown University

PROFESSORS

Robert D. Milk, B.A., M.A., Ph.D., Stanford University
Bertha Pérez, B.S., M.Ed., Our Lady of the Lake University; Ed.D., University of Massachusetts at Amherst

ASSOCIATE PROFESSORS

Robert J. Bayley, B.S., Columbia University; M.A., University of California at Berkeley; Ph.D., Stanford University
Ellen R. Clark, B.A., Trinity University; M.A., University of Texas at San Antonio; Ph.D., University of Texas at Austin
Jose Macias, B.A., California State University, Fresno; M.S.W., University of California at Berkeley; Ph.D., Stanford University
Thomas K. Ricento, B.A., Gettysburg College; M.A., University of Southern California; Ph.D., University of California, Los Angeles
Harriet D. Romo, B.S., University of Texas at Austin; M.A., University of California, Los Angeles; M.A., University of California, San Diego; Ph.D., University of California, San Diego
Armando Trujillo, B.S., M.A., University of Northern Colorado; Ph.D., University of Texas at Austin
ASSISTANT PROFESSORS

Juliet Langman, B.S., Georgetown University; M.A., Ph.D., Stanford University
Josephine Méndez-Negrete, B.A.S.W., M.S.W., San Jose State University, M.A., Ph.D., University of California, Santa Cruz
Howard L. Smith, B.A., Temple University; Ph.D., University of Arizona
COLLEGE OF ENGINEERING

PROFESSORS

Lex A. Akers (Electrical Engineering), B.S., M.S., Ph.D., Texas Tech University
Mita D. Desai (Electrical Engineering), B.S., Tennessee State University; M.S., Ph.D., University of Illinois
Richard S. Howe (Civil Engineering), B.S., University of Kentucky; M.S., Massachusetts Institute of Technology; M.S., Ph.D., University of Wisconsin
Amir Karimi (Mechanical Engineering), B.S., Oregon State University; M.S., University of Portland; Ph.D., University of Kentucky
Parimal A. Patel (Electrical Engineering), B.S., University of Bombay; M.S., Ph.D., University of Texas at Austin
G.V.S. Raju (Electrical Engineering), B.S., Andhra University; M.S., Banaras Hindu University; M.Tech., Indian Institute of Technology; Ph.D., Polytechnic Institute of Brooklyn
Chia-Shun Shih (Civil Engineering), B.S., National C.K. University of Taiwan; M.S., Ph.D., University of Texas at Austin

ASSOCIATE PROFESSORS

Sos S. Agaian (Electrical Engineering), B.S., M.S., Yerevan University, Armenia; Ph.D., Steklov Institute of Mathematics of the USSR, Moscow
G. Alberto Arroyo (Civil Engineering), B.S., Universidad Nacional de Ingenieria, Lima, Peru; M.S., Ph.D., New Mexico State University
Ronald L. Bagley (Mechanical Engineering), B.S., M.S., Massachusetts Institute of Technology; Ph.D., Air Force Institute of Technology
Jahan G. Eftekhar (Mechanical Engineering), B.S., University of Tehran; M.S., Ph.D., University of Texas at Arlington
Daniel O. Hogenauer (Civil Engineering), B.S., Haverford College; Ph.D., Johns Hopkins University
Wei-Ming Lin (Electrical Engineering), B.S., National Taiwan University; M.S., Ph.D., University of Southern California
Nester E. Sanchez (Mechanical Engineering), B.S., University of the Andes; M.S., University of Pittsburgh; Ph.D., Virginia Polytechnic Institute and State University
Cheryl B. Schrader (Electrical Engineering), B.S., Valparaiso University; M.S., Ph.D., University of Notre Dame
Yesh P. Singh (Mechanical Engineering), B.E., University of Roorkee; M.S., Youngstown State University; D.Eng., University of Wisconsin-Milwaukee
Jose Weissmann (Civil Engineering), B.S., M.S., University of Sao Paulo; Ph.D., University of Austin

ASSISTANT PROFESSORS

John Burgin (Civil Engineering), B.S., M.S., Ph.D., University of Texas at Austin
Keith Clutter (Mechanical Engineering), B.S., M.S., Mississippi State University; Ph.D., University of Florida
Manuel A. Diaz (Civil Engineering), B.S., M.S., National University of Engineering, Peru; Ph.D., University of Texas at Austin
Randall D. Manteufel (Mechanical Engineering), B.S., M.S., University of Texas at Austin; Ph.D., Massachusetts Institute of Technology
Asis Nasipuri (Electrical Engineering), B.Tech, Indian Institute of Technology, India; M.S., Ph.D., University of Massachusetts
Jagannathan Sarangapani (Electrical Engineering), B.E., Anna University at Madras, India; M.S., University of Saskatchewan at Saskatoon, Canada; Ph.D., University of Texas at Arlington
Xiaodu Wang (Mechanical Engineering), B.S., M.S., Beijing Institute of Aeronautics and Astronautics, China; Ph.D., Yokohama National University, Japan
COLLEGE OF LIBERAL AND FINE ARTS

SCHOOL OF ARCHITECTURE

PROFESSORS

Eugene George, B.Arch., University of Texas at Austin; M.A., Harvard University
Richard R. Tangum, B.Arch., Texas Tech University; M.Arch., Virginia Polytechnic Institute; D.E.D., Texas A&M University

ASSOCIATE PROFESSORS

Andrew Perez, III, B.Arch., University of Texas at Austin
Mary Helen Pratte, B.S., Northwestern State University; B.S., Northwestern State University; M.F.A., University of Texas at Austin
Jon H. Thompson, B.Arch., University of Texas at Austin; M.Arch., University of Oregon
Maggie Valentine, B.A., California State University; Ph.D., University of California, Los Angeles

ASSISTANT PROFESSORS

Mark Alan Blizard, B.Arch., M.Arch., Virginia Polytechnic Institute and State University
Madhu C. Dutta, B.Arch., Manipal Institute of Technology, India; M.Arch., University of Texas at Austin
Catherine Ann Garland, B.S., California Polytechnic State University; B.A., M.A., Ph.D., University of California, Irvine
Diane B. Hays, B.S., M.Arch, University of Texas at Austin
George S. Jell, M.Arch., Technical University in Berlin; M.S., Pratt Institute
Mahesh Senagala, B.Arch., Jawaharlal Nehru Technological University, India; M.Arch., Kansas State University

DIVISION OF BEHAVIORAL AND CULTURAL SCIENCES

PROFESSOR EMERITUS

Samuel W. Cochran, B.A., Mississippi College; M.A., George Peabody College for Teachers; Ph.D., Ohio State University

PROFESSORS

Richard E. W. Adams, B.A., University of New Mexico; M.A., Ph.D., Harvard University
Félix D. Almaráz, Jr., B.A., M.A., St. Mary’s University; Ph.D., University of New Mexico
Raymond R. Baird, A.B., Eastern New Mexico University; M.A., Ph.D., University of Washington
Steven R. Boyd, B.A., Claremont Men’s College; M.A., Ph.D., University of Wisconsin-Madison
Raymond T. Garza, B.A., M.A., Texas A&I University; Ph.D., Purdue University
Daniel J. Gelo, B.A., M.A., M.Phil., Ph.D., Rutgers University
Harvey J. Graff, B.A., Northwestern University; M.A., Ph.D., University of Toronto
Dwight F. Henderson, B.A., M.A., Ph.D., University of Texas at Austin
David R. Johnson, B.A., University of Illinois; M.A., Ph.D., University of Chicago
Ricardo Romo, B.S., University of Texas at Austin; M.A., Loyola Marymount University; Ph.D., University of California, Los Angeles
Richard M. Wenzlaff, B.A., University of Texas at San Antonio; M.A., Trinity University; Ph.D., University of Texas at Austin

ASSOCIATE PROFESSORS

Marsha C. Bol, B.A., University of Denver; M.A., Ph.D., University of New Mexico
Antonio Calabria, A.B., Brown University; M.A., Ph.D., University of California at Berkeley
Gena Dagel Caponi, B.A., Trinity University; M.A., Ph.D., University of Texas at Austin
Brian L. Davies, B.A., M.A., Ph.D., University of Chicago
James R. Dykes, B.A., Ph.D., University of Texas at Austin
Ann R. Eisenberg, B.A., M.A., Johns Hopkins University; Ph.D., University of California at Berkeley
Dorothy A. Flannagan, B.A., University of South Carolina; M.A., University of Richmond; Ph.D., North Carolina State University
Robert W. Fuhrman, B.A., St. Louis University; A.M., Ph.D., University of Illinois
Stella Garcia, B.A., Southern Methodist University; Ph.D., University of Texas at Arlington
Robert J. Hard, B.A., University of Arizona; M.A., Ph.D., University of New Mexico
James H. McDonald, B.A., University of Arizona; M.S., University of Wisconsin-Milwaukee; Ph.D., Arizona State University
Juan Mora-Torres, B.A., University of California, San Diego; M.A., Ph.D., University of Chicago
Wing Chung Ng, B.A., M. Phil., University of Hong Kong; Ph.D., University of British Columbia
David R. Pillow, B.A., University of Texas at Arlington; M.A., Ph.D., Arizona State University
John F. Reynolds, B.A., M.A., Michigan State University; Ph.D., Rutgers University
Michael P. Ryan, B.A., Pomona College; Ph.D., Stanford University
James C. Schneider, B.A., St. Lawrence University; M.A., Ph.D., University of Wisconsin-Madison
Linda Schott, B.A., Baylor University; M.A., Ph.D., Stanford University
Maria Luisa Urdaneta, B.A., M.A., University of Texas at Austin; Ph.D., Southern Methodist University

ASSISTANT PROFESSORS

Thomas Coyle, B.A., M.A., Florida Atlantic University; Ph.D., University of Florida
Jacqueline M. Curiel, B.A., California State University at Los Angeles; M.A., Ph.D., University of Notre Dame
Kirsten Gardner, B.A., Georgetown University; M.A., Ph.D., University of Cincinnati
John Giggie, B.A., Amherst College; M.A., Ph.D., Princeton University
Michael Gregg, B.A., University of Chicago; M.A., Ph.D., University of Virginia
Kolleen M. Guy, B.A., North Central College; M.A., Northern Illinois University; Ph.D., Indiana University
Ann Hardgrove, B.A., Ph.D., University of Michigan
Patrick J. Kelly, B.A., University of Texas at Austin; Ph.D., New York University
Laura J. Levi, B.A., Bryn Mawr College; Ph.D., University of New Mexico
Yolanda C. Leyva, B.B.A., University of Texas at Austin; M.A., University of Texas at El Paso; Ph.D., University of Arizona, Tucson
Mary E. McNaughton-Cassill, B.A., M.A., University of California at Santa Barbara; Ph.D., University of California at San Diego/San Diego State University
Laura Mitchell, B.A., University of California, Berkeley; M.A., M.S., Georgetown University; M.A., Ph.D., University of California, Los Angeles

DIVISION OF ENGLISH, CLASSICS, PHILOSOPHY, AND COMMUNICATION

PROFESSORS

Guy Bailey, B.A., M.A., University of Alabama; Ph.D., University of Tennessee
Wendy B. Barker, B.A., M.A., Arizona State University; Ph.D., University of California, Davis
Mark H. Bernstein, B.A., Queens College; M.A., California State University, Northridge; Ph.D., University of California, Santa Barbara
Norma Cantú, B.S., M.S., Texas A & I University; Ph.D., University of Nebraska
Alan E. Craven, B.A., M.A., Ph.D., University of Kansas
Bonnie K. Lyons, B.A., M.A., Ph.D., Tulane University
Arthur R. Miller, B.A., West Liberty State College; M.A., Ph.D., Michigan State University
Jeanne C. Reesman, B.A., Centenary College of Louisiana; M.A., Baylor University; Ph.D., University of Pennsylvania
John A. Stoler, B.A., Ripon College; M.A., San Francisco State College; Ph.D., University of Arizona
Linda T. Woodson, B.S., Ph.D., Texas Christian University
ASSOCIATE PROFESSORS

Paul T. Alessi, B.A., Wabash College; M.A., Indiana University; Ph.D., University of Missouri
Mark E. Allen, B.A., St. Norbert College; M.A., Arizona State University; Ph.D., University of Illinois
Michael J. Almeida, B.A., Bridgewater State College; Ph.D., Ohio State University
Margaret W. Batschelet, B.A., Grinnell College; M.A., Ph.D., University of Washington
Bridget A. Drinka, B.A., University of Illinois; M.S., Georgetown University; Ph.D., University of Texas at Austin
Kenneth A. Hovey, B.A., Cornell University; M.A., Graduate Theological Union; M.A., Ph.D., University of Virginia
Steven R. Levitt, B.A., Montana State University; M.A., West Virginia University; Ph.D., Ohio State University
Debbie L. Lopez, B.A., University of the South; M.A., Middlebury College; A.M., Ph.D., Harvard University
Margaret McBride, B.A., University of Kansas; M.A., Ph.D., Ohio University
Bill V. Mullen, B.A., Occidental College; M.A., Ph.D., City University of New York Graduate Center
Clemencia Rodriguez, B.A., Universidad Javeriana, Colombia; M.A., Ph.D., Ohio University

ASSISTANT PROFESSORS

Bernadette Diane Andrea, B.A., M.A., University of Calgary; M.A., Ph.D., Cornell University
Xunwu Chen, B.A., Zhongshan (Sun Yatsen) University; M.A., International Academy of Philosophy; Ph.D., Fordham University
Amiso M. George, A.A., University of Lagos, Nigeria; B.S.J., Ph.D., Ohio University
Catherine Kasper, B.A., University of Illinois, Urbana-Champaign; M.A., University of Illinois, Chicago; Ph.D., University of Denver
Jeraldine R. Kraver, B.A., Georgetown University; M.A., Southern Connecticut State University; Ph.D., University of Kentucky
Joseph Massey, B.A., University of Oklahoma; M.A., Ph.D. University of Arizona
Vickie Mayer, B.A., Brown University; M.A., Ph.D., University of California, San Diego
Louis Mendoza, B.A., University of Houston; M.A., Ph.D., University of Texas at Austin
Ben Olguín, B.A., University of Houston; M.A., Ph.D., Stanford University
John S. Rundin, B.A., University of Illinois, Chicago; M.A., Ph.D., University of California, Berkeley
Carlos Salinas, B.S., Grand Valley State University; M.A., University of Notre Dame; Ph.D., Purdue University
Janeylyn Tillery, B.A., Texas Tech University; M.A., Texas A&M University; Ph.D., Oklahoma State University
William Weitzel, A.B., A.M., Ph.D., Harvard University
Kenton Wilkinson, B.A., University of Colorado, Boulder; M.A., University of California at Berkeley; Ph.D., University of Texas at Austin
Mark Womack, B.A., Rice University; M.A., University of California at Irvine; Ph.D., University of Texas at Austin

DIVISION OF FOREIGN LANGUAGES

PROFESSORS EMERITI

Ricardo F. Benavides, B.A., M.A., Universidad de Chile; Ph.D., Universidad Central de Madrid
Beverly J. Gibbs, B.A., M.A., University of Michigan; Ph.D., University of Wisconsin-Madison
Joseph Michel, B.A., DeSalle College; M.A., Universidad Nacional Autónoma de México; Ph.D., University of New Mexico

PROFESSORS

Santiago Daydí-Tolson, Licenciado en Filosofía y Educación, Universidad Católica de Valparaíso, Chile; Ph.D. University of Kansas
Jack Himelblau, A.B., M.A., University of Chicago; Ph.D., University of Michigan
Steven G. Kellman, B.A., State University of New York at Binghamton; M.A., Ph.D., University of California at Berkeley
Frank Pino, Jr., B.A., M.A., Arizona State University; Ph.D., Northwestern University
ASSOCIATE PROFESSORS

Townsend W. Bowling, A.B., Washington University, St. Louis; A.M., Middlebury College Graduate School of French in France; Ph.D., Yale University
Mary Ellen Garcia, B.A., Occidental College; M.A., Indiana University; Ph.D., Georgetown University
Sheila K. Johnson, B.S., Auburn University; M.A., University of Oregon; Ph.D., McGill University
Nancy J. Membrez, B.A., College of Wooster; M.A., University of Minnesota; Ph.D., University of California, Santa Barbara
Ritva M. Nummikoski, B.A., M.A., Helsinki University; Ph.D., University of Texas at Austin
Barbara Simerka, B.A., University of Michigan; M.A., Wayne State University; Ph.D., University of Southern California
Christopher Wickham, B.A., M.Phil., University of Reading, England; Ph.D., University of Wisconsin-Madison

ASSISTANT PROFESSORS

Raul Aranovich, Licenciado en Letras, Universidad Nacional de Buenos Aires; M.A., Ph.D., University of California, San Diego
Malgorzata Oleszkiewicz, B.A., M.A., Queens College; Ph.D., New York University

DIVISION OF MUSIC

PROFESSORS

Donald A. Hodges, B.M.E., University of Kansas; M.M., Ph.D., University of Texas at Austin
John J. Silantien, B.M.E., Hartt College of Music; M.M., Catholic University of America; D.M.A., University of Illinois
Clarence J. Stuessy, B.M., Southern Methodist University; M.A., Ph.D., Eastman School of Music

ASSOCIATE PROFESSORS

James Balentine, B.A., M.M., University of South Carolina; D.M.A., University of Texas at Austin
Valeri A. Grokhovski, B.M., Gnessin Music School, Moscow; M.M., Gnessin Music Conservatory; D.M.A., Gnessin Graduate School
Brian P. Harris, B.M., Stanford University; M.M.Ed., Louisiana State University; Ph.D., Florida State University
Gary L. Mabry, B.M.Ed., Abilene Christian University; M.M., Hardin Simmons University; D.M.A., University of Colorado
Linda A. Poetschke, B.M., University of North Texas; M.M., University of Texas at Austin
Robert J. Rostowicz, B.M.E., Central Michigan University; M.M., D.M.A., College-Conservatory, University of Cincinnati
David C. Sebald, B.M., M.M., Ph.D., Michigan State University
John D. Vander Weg, B.M., M.M., Ph.D., University of Michigan

ASSISTANT PROFESSORS

Eugene Dowdy, B.M., University of Texas at Austin; M.M., University of Texas at San Antonio; D.M.A., University of Iowa
David Heuser, B.M., Eastman School of Music; M.M., D.M., Indiana University
Scott Lipscomb, B.M., University of Tennessee, Knoxville; M.A., Ph.D., University of California, Los Angeles
Deborah Schwartz-Kates, B.M., Florida State University; M.A., Indiana University; Ph.D., University of Texas at Austin
Kenneth E. Williams, B.A., M.M., University of South Florida; Ph.D., Florida State University

DIVISION OF SOCIAL AND POLICY SCIENCES

PROFESSORS

David Alvirez, B.A., Southwestern University; M.Th., Perkins School of Theology; M.A., Ph.D., University of Texas at Austin
Thomas J. Bellows, B.A., Augusta College; M.A., University of Florida; M.A., Ph.D., Yale University
Juanita Firestone, B.S., Blackhills State College; M.A., Ph.D., University of Texas at Austin
Richard J. Harris, B.A., Macalester College; M.A., Ph.D., Cornell University
Richard C. Jones, B.S., Austin Peay State University; M.A., Indiana University; Ph.D., Ohio State University
Avelardo Valdez, B.S., M.A., University of Wisconsin-Milwaukee; M.A., Ph.D., University of California, Los Angeles
ASSOCIATE PROFESSORS

Stephen Amberg, B.A., Tufts University; Ph.D., Massachusetts Institute of Technology
Miguel D. DeOliver, B.A., University of Illinois; M.S., Ph.D., Pennsylvania State University
Francisco Durand, B.A., M.A., Catholic University of Peru; Ph.D., University of California at Berkeley
Mansour El-Kikhia, B.A., American University of Beirut; M.A., Ph.D., University of California, Santa Barbara
Richard A. Gambitta, B.A., M.A., Ph.D., Syracuse University
Jeffrey A. Halley, B.A., Hobart and William Smith Colleges; M.A., New School for Social Research; Ph.D., City University of New York
Richard Lewis, B.S., Texas Tech University; M.S., Ph.D., Texas A&M University
Michael V. Miller, B.S., M.S., Ph.D., Texas A&M University
John M. Morris, Jr., B.A., M.A., M.S., Ph.D., University of Texas at Austin
Cherylon Robinson, B.A., Texas Tech University; M.A., University of Texas at El Paso; Ph.D., University of Texas at Austin
Harriett D. Romo, B.S., University of Texas at Austin; M.A., University of California, Los Angeles; M.A., Ph.D., University of California, San Diego
Rodolfo Rosales, B.A., St. Mary’s University; M.A., Trinity University; M.A., Ph.D., University of Michigan
Arturo Vega, B.A., M.A., St. Mary’s University; Ph.D., University of Oklahoma

ASSISTANT PROFESSORS

Daniel A. Engster, B.A., Colorado College; M.A., Ph.D., University of Chicago
Amy E. Jasperson, B.A., Wellesley College; Ph.D., University of Minnesota
Raquel Marquez, B.S., Southwest Texas State University; M.A., Ph.D., University of Texas at Austin
David W. Romero, B.A., University of Texas at San Antonio; M.A., Ph.D., University of Houston
Pablo S. Vila, B.A., Universidad del Salvador, Argentina; Ph.D., University of Texas at Austin

DIVISION OF VISUAL ARTS

PROFESSOR EMERITUS

Jacinto J. Quirarte, B.A., M.A., San Francisco State College; Ph.D., Universidad Nacional Autónoma de México

PROFESSORS

Ronald C. Binks, B.F.A., Rhode Island School of Design; M.F.A., Yale University
James A. Broderick, B.A., St. Ambrose College; M.A., University of Iowa
Charles T. Field, B.A., Stanford University; M.F.A., University of Washington
Ken D. Little, B.F.A., Texas Tech University; M.F.A., University of Utah
Dennis Olsen, B.A., M.A., University of California, Los Angeles
Kent T. Rush, B.F.A., California College of Arts and Crafts; M.A., University of New Mexico; M.F.A., University of Texas at Austin
Judith B. Sobré, B.A., New York University; M.A., Ph.D., Harvard University

ASSOCIATE PROFESSORS

Frances J. Colpitt, B.F.A., M.A., University of Tulsa; Ph.D., University of Southern California
Constance A. Lowe, B.F.A., Southern Methodist University; M.F.A., Western Michigan University
Neil D. Maurer, B.A., Brown University; M.F.A., Rhode Island School of Design

ASSISTANT PROFESSORS

Ruben C. Cordova, B.A., Brown University; Ph.D., University of California, Berkeley
Kellen K. McIntyre, B.S., University of Texas at El Paso; M.A., Ph.D., University of New Mexico
COLLEGE OF SCIENCES

DIVISION OF COMPUTER SCIENCE

PROFESSORS

Robert E. Hiromoto, B.S., California State University, Long Beach; Ph.D., University of Texas at Dallas
Kay A. Robbins, S.B., Ph.D., Massachusetts Institute of Technology
Steven Robbins, S.B., S.M., Ph.D., Massachusetts Institute of Technology

ASSOCIATE PROFESSORS

Rajendra V. Boppana, B.Tech., University of Mysore; M.Tech., Indian University of Technology; Ph.D., University of Southern California
Thomas C. Bylander, B.S., University of South Dakota; M.S., Ph.D., Ohio State University
Anthony T. Chronopoulos, B.S., University of Athens, Greece; M.S., University of Minnesota; Ph.D., University of Illinois
Hugh B. Maynard, B.S., California Institute of Technology; M.S., Ph.D., University of Colorado at Boulder
Kleanthis Psarris, B.S., National University of Athens, Greece; M.S., Ph.D., Stevens Institute of Technology
Neal R. Wagner, B.A., University of Kansas; M.A., Ph.D., University of Illinois
Weining Zhang, B.Engr, University of China; M.S., Ph.D., University of Illinois at Chicago

ASSISTANT PROFESSORS

Guohui Lin, B.A., M.S., Zhejiang University; Ph.D., Institute of Applied Mathematics, Chinese Academy of Sciences
Stephen Kwek, B.S., McGill University, Montreal; M.S., Ph.D., University of Illinois at Urbana-Champaign

DIVISION OF EARTH AND PHYSICAL SCIENCES

PROFESSORS

Petr Hochmann, M.S., Charles’ University, Prague; Ph.D., Czechoslovak Academy of Science, Prague
Alan P. Morris, B.S., University of London; Ph.D., Cambridge University
Patrick L. Nash, B.S., University of Arizona; Ph.D., University of North Carolina at Chapel Hill
Dhiraj K. Sardar, B.S., M.S., University of Calcutta; Ph.D., Oklahoma State University
Robert K. Smith, B.S., Washington State University; M.S., Ph.D., University of Iowa
Philip L. Stotter, A.B., Harvard College; A.M., Ph.D., Columbia University
Eric R. Swanson, B.S., Western Michigan University; M.A., Ph.D., University of Texas at Austin
Judith A. Walmsley, B.A., Florida State University; Ph.D., University of North Carolina at Chapel Hill

ASSOCIATE PROFESSORS

John W. Adams, B.S., M.S., Utah State University; Ph.D., Washington State University
Stephan B. H. Bach, B.S., B.A., University of Cincinnati; Ph.D., University of Florida
Stuart J. Birnbaum, B.S., State University of New York at Stony Brook; Ph.D., Cambridge University
Liao Y. Chen, B.S., Xingyang Normal College, Henan; M.S., Huazhong University of Science Technology, Wuhan; Ph.D., Academia Sinica, Beijing
James M. Gallas, B.S., Albright College; M.S., Drexel University; Ph.D., University of Houston
Weldon W. Hammond, Jr., B.A., M.A., Ph.D., University of Texas at Austin
John V. McClusky, B.S., Texas Lutheran College; Ph.D., Yale University
George R. Negrete, B.S., Stanford University; Ph.D., University of California, Santa Cruz
ASSISTANT PROFESSORS

Stephen C. Brown, A.S., Vernon Regional Junior College; B.S., Texas A&M University; M.S., University of Texas at San Antonio; Ph.D., State University of New York (SUNY)
Waldemar Gorski, M.S., Ph.D., Warsaw University
Hyunsoo Han, B.S., Kyung-Pook National University; M.S., Seoul National University; Ph.D., Princeton University

DIVISION OF LIFE SCIENCES

PROFESSORS

Deborah L. Armstrong, B.A., Hiram College; M.S., Ph.D., Syracuse University
James P. Chambers, B.A., St. Mary’s University; M.A., Incarnate Word College; Ph.D., University of Texas Health Science Center at San Antonio
Brenda J. Claiborne, B.A., University of California; M.S., University of Oregon; Ph.D., University of California
M. Neal Guentzel, B.A., M.A., Ph.D., University of Texas at Austin
Andrew O. Martinez, B.S., College of Santa Fe; M.S., Ph.D., University of Arizona
Joe L. Martinez, Jr., B.A., University of San Diego; M.S., New Mexico Highlands University; Ph.D., University of Delaware
Robert D. Renthal, B.A., Princeton University; Ph.D. Columbia University
Paul H. Rodriguez, B.S., Creighton University; M.S., University of New Mexico; Ph.D., University of Rhode Island
William H. Scouten, B.A., Houghton University; Ph.D., University of Pittsburgh
Andrew T. C. Tsin, B.S., Dalhousie University; M.S., Ph.D., University of Alberta
O. William Van Auken, B.S., High Point College; M.S., Ph.D., University of Utah
Matthew J. Wayner, A.B., Dartmouth College; M.S., Tufts University; Ph.D., University of Illinois
Charles J. Wilson, B.A., M.A., Ph.D., University of Colorado at Boulder

ASSOCIATE PROFESSORS

J. Aaron Cassill, B.A., Harvard University; Ph.D., University of California, San Diego
Luis S. Haro, B.A., University of California, San Diego; Ph.D., University of California, Santa Cruz
David B. Jaffe, B.A., B.S., University of Texas at Austin; M.S., Duke University; Ph.D., Baylor College of Medicine
Richard G. LeBaron, B.S., Louisiana State University; Ph.D., University of Alabama
Clyde F. Phelix, B.A., State University of New York; Ph.D., University of Missouri
David M. Senseman, B.S., Kent State University; M.S., Ph.D., Princeton University
Valerie M. Sponsel, B.Sc., Ph.D., University of Wales, U.K.; D.Sc., University of Bristol, U.K.
Esther F. Wheeler, B.S., New Mexico State University; Ph.D., George Washington University

ASSISTANT PROFESSORS

Edwin J. Barea-Rodriguez, B.A., Inter-American University of Puerto Rico; M.A., Ph.D., Southern Illinois University
Brian E. Derrick, B.S., University of California, Los Angeles; M.A., Ph.D., University of California, Berkeley
Matthew J. Gdovin, B.S., University of Texas at San Antonio; Ph.D., Dartmouth College
Hans W. Heidner, B.S., California Polytechnic State University; M.S., North Carolina State University; Ph.D., University of California, Davis
Martha J. Lundell, B.A., University of Colorado; Ph.D., University of California, Los Angeles

DIVISION OF MATHEMATICS AND STATISTICS

PROFESSORS

Shair Ahmad, B.S., M.S., University of Utah; Ph.D., Case Western Reserve University
Manuel P. Berriozaabal, B.S., Rockhurst College; M.S., University of Notre Dame; Ph.D., University of California, Los Angeles
Alfonso Castro, B.S., M.S., National University of Columbia; Ph.D., University of Cincinnati
Youn-Min Chou, B.S., National Taiwan University; M.S., University of Texas at El Paso; Ph.D., Southern Methodist University

Gelu F. Popescu, B.S., University of Timisoara; M.S., University of Bucharest; Ph.D., Texas A&M University

Walter B. Richardson, Jr., B.S., Southwest Texas State University; M.S., University of Houston; Ph.D., University of North Texas

Nikos A. Salingaros, B.S., University of Miami; M.A., Ph.D., State University of New York at Stony Brook

Lucio Tavernini, B.S.E.E., Heald Engineering College; M.S., University of Colorado at Boulder; M.S., Ph.D., University of Wisconsin-Madison

Betty S. P. Travis, B.A., M.S., St. Mary’s University; Ph.D., University of Texas at Austin

Ram C. Tripathi, B.A., M.A., Banaras Hindu University, India; M.S., Ph.D., University of Wisconsin-Madison

Gregory P. Wene, B.A., M.A., University of Texas at Austin; Ph.D., University of Iowa

Lawrence R. Williams, B.S., Texas Southern University; M.A., Ph.D., University of Michigan

ASSOCIATE PROFESSORS

Alvaro Arias, M.S., Ph.D., Texas A&M University

Dmitry Gokhman, B.S., University of Miami; Ph.D., University of California, Berkeley

Nandini Kannan, B.S., M.S., Madras University, India; M.A., University of Pittsburgh; Ph.D., Pennsylvania State University

Ming-Ying Leung, B.S., M.Phil., University of Hong Kong; M.S., Ph.D., Stanford University

F. Alexander Norman, B.A., University of Virginia; M.A., Ed.D., University of Georgia

Raj Wilson, B.S., M.S., University of Madras, India; Ph.D., Stevens Institute of Technology

Mary Lou Zeeman, B.A., M.A., Oxford University; Ph.D., University of California at Berkeley

ASSISTANT PROFESSORS

Weiming Cao, B.Sc., Nanjing University, China; M.Sc., Ph.D., Shanghai University of Science and Technology, China

Fengxin Chen, B.S., Hangzhou University, China; M.S., Yunnan University, China; Ph.D., Brigham Young University

José B. Iovino, B.A., M.S., Universidad de los Andes, Columbia; Ph.D., University of Illinois, Urbana-Champaign

Dung Le, B.Sc., University of Saigon, Vietnam; M.S., International Center for Theoretical Physics, Italy; Ph.D., Arizona State University

Kathleen Cage Mittag, B.S., M.S., Texas A&I University; Ph.D., Texas A&M University

Norman J. Preston, B.S., Cleveland State University; M.A., Ph.D., Bowling Green State University

Gabriel A. Schachtel, M.S., Ph.D., Justus-Liebig University

COLLEGE FACULTY

Helen V. Oujesky, B.A., B.S., Ph.D., Texas Woman’s University; M.A., Texas Christian University
COLLEGE OF URBAN PROFESSIONAL PROGRAMS

DIVISION OF CRIMINAL JUSTICE

PROFESSORS

Derral Cheatwood, B.A., Oklahoma State University; M.A., Ph.D., Ohio State University

ASSOCIATE PROFESSORS

James D. Calder, B.A. University of Maryland; M.S., California State University, Long Beach; Ph.D., Claremont Graduate School
Michael J. Gilbert, B.A., M.A., University of New Hampshire; D.P.A., Arizona State University
Patricia M. Harris, B.A., M.A., Ph.D., Rutgers, the State University of New Jersey

ASSISTANT PROFESSORS

Milo L. Colton, B.A., M.P.A., Ph.D., University of Colorado; J.D., University of Iowa
Ni He, LL.B., Xiamen University’ M.A., Western Illinois University; Ph.D., University of Nebraska at Omaha
Rebecca D. Peterson, B.S., Northeast Missouri State University; M.S., Ph.D., Arizona State University
Steve Russell, B.S.Ed., University of Texas at Austin; J.D., University of Texas; M.J.S., University of Nevada at Reno

DIVISION OF PUBLIC ADMINISTRATION

ASSOCIATE PROFESSOR

Beverly S. Bunch, B.S., University of Illinois; M.P.A., Syracuse University; Ph.D., Carnegie-Mellon University
Mark A. McBriarty, B.S., St. Joseph’s College; M.B.A., D.P.A., George Washington University

ASSISTANT PROFESSORS

John G. Bretting, B.S., University of New Mexico; M.A., Ph.D., University of Houston
Jerrell D. Coggburn, B.A., Oklahoma State University; M.P.A., Ph.D., University of South Carolina
Francine Sanders Romero, B.A., California State University; M.A., Ph.D., University of California at Riverside