# UNDERGRADUATE CATALOG 1994-96 

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CALENDAR \& INFORMATION


## CALENDAR AND INFORMATION

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## UNDERGRADUATE

## *FALL SEMESTER 1994

## June 1

June 13-July 15

## June 15

July 1
August 24
August 25
August 26
August 29
August 31
September 2
September 5
September 12
September 14

September 19
September 26
October 1
October 15

October 28
November 24-26
December 5
December 12-17
December 17

Wednesday. International student admission application deadline for Fall 1994.
Touch Tone Telephone Registration for Fall Semester 1994.

Wednesday. Fall 1994 deadline to file Petition for Reinstatement for students who have been academically dismissed a second or subsequent time.
Friday. Deadline to apply for admission and provide supporting documents for Fall 1994.
Wednesday. New and returning former student registration. Thursday. Late registration.
Friday. Last day to withdraw from all classes and receive a $100 \%$ refund of tuition and fees.
Monday. Classes begin. Continuing late registration.
Wednesday. Last day of late registration.
Friday. Last day to withdraw from all classes and receive an $80 \%$ refund of tuition and fees. Last day to add a class. Monday. Labor Day Holiday.
Monday. Last day to withdraw from all classes and receive a $70 \%$ refund of tuition and fees.
Wednesday. Census Date. Last day to: drop an individual course or withdraw from all classes without a grade; choose credit/no-credit grading option; drop a class and receive a refund.
Monday. Last day to withdraw from all classes and receive a $50 \%$ refund of tuition and fees.
Monday. Last day to withdraw from all classes and receive a $25 \%$ refund of tuition and fees.
Saturday. Deadline for Fall 1994 degree candidates to apply for graduation.
Saturday. International student admission application deadline for Spring 1995. Spring 1995 deadline to file Petition for Reinstatement for students who have been academically dismissed a second or subsequent time.
Friday. Last day to drop an individual course or withdraw from all classes and receive a grade of "W." Thursday-Saturday. Thanksgiving Holidays. Monday. Last day to withdraw from all classes. Monday-Saturday. Final Examinations.
Saturday. Semester closes.

## *SPRING SEMESTER 1995

October 15
Saturday. International student admission application deadline for Spring 1995. Spring 1995 deadline to file Petition for Reinstatement for students who have been academically dismissed a second or subsequent time.

[^0]October 27-
December 2
December 1
January 11
January 12
January 13
January 16
January 17
January 18
January 20
January 23
January 30
February 1

February 6
February 14
March 1
March 15

March 17
March 20-25
May 1
May 8-13
May 13

Touch Tone Telephone Registration for Spring Semester 1995.

Thursday. Deadline to apply for admission and provide supporting documents for Spring 1995.
Wednesday. New and returning former student registration. Thursday. Late registration.
Friday. Last day to withdraw from all classes and receive a $100 \%$ refund of tuition and fees.
Monday. Martin Luther King, Jr. Holiday.
Tuesday. Classes begin. Continuing late registration.
Wednesday. Last day of late registration.
Friday. Last day to add a class.
Monday. Last day to withdraw from all classes and receive an $80 \%$ refund of tuition and fees.
Monday. Last day to withdraw from all classes and receive a $70 \%$ refund of tuition and fees.
Wednesday. Census Date. Deadline for Spring 1995 degree candidates to apply for graduation. Last day to: drop an individual course or withdraw from all classes without a grade; choose credit/no-credit grading option; drop class and receive a refund.
Monday. Last day to withdraw from all classes and receive a $50 \%$ refund of tuition and fees.
Monday. Last day to withdraw from all classes and receive a $25 \%$ refund of tuition and fees.
Wednesday. International student admission application deadline for Summer Sessions I and II 1995.
Wednesday. Summer 1995 deadline to file Petition for Reinstatement for students who have been academically dismissed a second or subsequent time.
Friday. Last day to drop an individual course or withdraw from all classes and receive a grade of "W."
Monday-Saturday. Spring Break.
Monday. Last day to withdraw from all classes.
Monday-Saturday. Final Examinations.
Saturday. Semester closes.

## *SUMMER SESSION 1995

Wednesday. International student admission application deadline for Summer Sessions I and II 1995.
Wednesday. Summer 1995 deadline to file Petition for Reinstatement for students who have been academically dismissed a second or subsequent time.
Touch Tone Telephone Registration for Summer Session I and II 1995.
Monday. Deadline to apply for admission and provide supporting documents for Summer Sessions I and II 1995. Thursday. New and returning former student registration for Summer Sessions I and II 1995. Late registration for continuing students for Summer Sessions I and II.

[^1]June 2
June 5
June 6
June 7

June 8

June 12
June 15

June 26

July 3
July 6-7
July 7

July 10
July 11
July 12

July 13

July 17

July 31

August 7

Friday. Last day to withdraw from all classes in Summer Session I and receive a $100 \%$ refund of tuition and fees. Monday. Classes begin for Summer Session I. Continuing late registration.
Tuesday. Last day of late registration. Last day to add a class for the first five-week and ten-week terms.
Wednesday. Last day to withdraw from all classes in Summer Session I and receive an $80 \%$ refund of tuition and fees.
Thursday. Census Date. Last day in Summer Session I to: drop an individual course or withdraw from all classes without a grade; choose credit/no-credit grading option; drop a class and receive a refund.
Monday. Last day to withdraw from all classes in Summer Session I and receive a $50 \%$ refund of tuition and fees.
Thursday. Deadline for Summer 1995 degree candidates to apply for graduation. Fall 1995 deadline to file Petition for Reinstatement for students who have been academically dismissed a second or subsequent time.
Monday. Last day for students enrolled in the first fiveweek term to drop an individual course or withdraw from all classes and receive a grade of "W."
Monday. Last day to withdraw from all classes for the first five-week term.
Thursday-Friday. Final examinations for courses in the first five-week term.
Friday. Close of the first five-week term. Last day to withdraw from all classes in Summer Session II and receive a $100 \%$ refund of tuition and fees.
Monday. Classes begin for courses in Summer Session II. Late registration for Summer Session II.
Tuesday. Last day of late registration for Summer Session II. Last day to add a Summer Session II class.

Wednesday. Last day to withdraw from all classes in Summer Session II and receive an $80 \%$ refund of tuition and fees.
Thursday. Census Date. Last day in Summer Session II to: drop an individual course or withdraw from all classes without a grade; choose credit/no-credit grading option; drop a class and receive a refund.
Monday. Last day for students enrolled in the ten-week term to drop an individual course or withdraw from all classes and receive a grade of "W." Last day to withdraw from all classes in Summer Session II and receive a $50 \%$ refund of tuition and fees.
Monday. Last day for students enrolled in the second fiveweek term to drop an individual course or withdraw from all classes and receive a grade of "W."
Monday. Last day to withdraw from all classes for the second five-week and ten-week terms.

[^2]August 9-11
August 11

June 1
June 12-July 14
June 15

July 1
August 23
August 24
August 25
August 2829
August 30
September 1
September 4
September 11
September 13

September 18
September 25
October 1
October 15

October 27
November 23-25
December 4
December 11-16
December 16

Wednesday-Friday. Final examinations for courses in the second five-week and ten-week terms.
Friday. Semester closes.

## *FALL SEMESTER 1995

Thursday. International student admission application deadline for Fall 1995.
Touch Tone Telephone Registration for Fall Semester 1995.

Thursday. Fall 1995 deadline to file Petition for Reinstatement for students who have been academically dismissed a second or subsequent time.
Saturday. Deadline to apply for admission and provide supporting documents for Fall 1995.
Wednesday. New and returning former student registration. Thursday. Late registration.
Friday. Last day to withdraw from all classes and receive a $100 \%$ refund of tuition and fees.
Monday. Classes begin. Continuing late registration. Wednesday. Last day of late registration.
Friday. Last day to withdraw from all classes and receive an $80 \%$ refund of tuition and fees. Last day to add a class. Monday. Labor Day Holiday.
Monday. Last day to withdraw from all classes and receive a $70 \%$ refund of tuition and fees.
Wednesday. Census Date. Last day to: drop an individual course or withdraw from all classes without a grade; choose credit/no-credit grading option; drop a class and receive a refund.
Monday. Last day to withdraw from all classes and receive a $50 \%$ refund of tuition and fees.
Monday. Last day to withdraw from all classes and receive a $25 \%$ refund of tuition and fees.
Sunday. Deadline for Fall 1995 degree candidates to apply for graduation.
Sunday. International student admission application deadline for Spring 1996. Spring 1996 deadline to file Petition for Reinstatement for students who have been academically dismissed a second or subsequent time.
Friday. Last day to drop an individual course or withdraw from all classes and receive a grade of "W."
Thursday-Saturday. Thanksgiving Holidays.
Monday. Last day to withdraw from all classes.
Monday-Saturday. Final Examinations.
Saturday. Semester closes.

## *SPRING SEMESTER 1996

October 15

October 26-
December 1
December 1
January 10
January 11
January 12
January 15
January 16
January 17
January 19
January 22
January 29
January 31

February 1
February 5 Monday. Last day to withdraw from all classes and receive a $50 \%$ refund of tuition and fees.
February 12 Monday. Last day to withdraw from all classes and receive a $25 \%$ refund of tuition and fees.
March 1 Friday. International student admission application deadline for Summer Sessions I and II 1996.
March 15 Friday. Last day to drop an individual course or withdraw
from all classes and receive a grade of "W." Summer 1996 deadline to file Petition for Reinstatement for students who
have been academically dismissed a second or subsequent deadline to file Petition for Reinstatement for students who
have been academically dismissed a second or subsequent time.
March 18-23
April 29
May 6-11
May 11
Sunday. International student admission application deadline for Spring 1996. Spring 1996 deadline to file Petition for Reinstatement for students who have been academically dismissed a second or subsequent time.
Touch Tone Telephone Registration for Spring Semester 1996.

Friday. Deadline to apply for admission and provide supporting documents for Spring 1996.
Wednesday. New and returning former student registration. Thursday. Late registration.
Friday. Last day to withdraw from all classes and receive a $100 \%$ refund of tuition and fees.
Monday. Martin Luther King, Jr. Holiday.
Tuesday. Classes begin. Continuing late registration.
Wednesday. Last day of late registration.
Friday. Last day to add a class.
Monday. Last day to withdraw from all classes and receive an $80 \%$ refund of tuition and fees.
Monday. Last day to withdraw from all classes and receive a $70 \%$ refund of tuition and fees.
Wednesday. Census Date. Last day to: drop an individual course or withdraw from all classes without a grade; choose credit/no-credit grading option; drop a class and receive a refund.
Thursday. Deadline for Spring 1996 degree candidates to apply for graduation.

Monday-Saturday. Spring Break.
Monday. Last day to withdraw from all classes.
Monday-Saturday. Final Examinations.
Saturday. Semester closes.

## *SUMMER SESSION 1996

Friday. International student admission application deadline for Summer Sessions I and II 1996.
March 15 Friday. Summer 1996 deadline to file Petition for Reinstatement for students who have been academically dismissed a second or subsequent time.

[^3]April 8-26
May 1
May 30

May 31
June 3
June 4
June 5

June 6

June 10
June 15

June 24

July 1
July 3 and 5
July 4
July 5

July 8
July 9 Tuesday. Last day of late registration for Summer Session
July 10 Wednesday. Last day to withdraw from all classes in Summer Session II and receive an $80 \%$ refund of tuition and fees.
July 11 Thursday. Census Date. Last day in Summer Session II to: drop an individual course or withdraw from all classes without a grade; choose credit/no-credit grading option; drop a class and receive a refund.
July 15
Touch Tone Telephone Registration for Summer Session I and II 1996.
Wednesday. Deadline to apply for admission and provide supporting documents for Summer Sessions I and II 1996. Thursday. New and returning former student registration for Summer Sessions I and II 1996. Late registration for continuing students for Summer Sessions I and II.
Friday. Last day to withdraw from all classes in Summer Session I and receive a $100 \%$ refund of tuition and fees.
Monday. Classes begin for Summer Session I. Continuing late registration.
Tuesday. Last day of late registration. Last day to add a class for the first five-week and ten-week terms.
Wednesday. Last day to withdraw from all classes in Summer Session I and receive an $80 \%$ refund of tuition and fees.
Thursday. Census Date. Last day in Summer Session I to: drop an individual course or withdraw from all classes without a grade; choose credit/no-credit grading option; drop a class and receive a refund.
Monday. Last day to withdraw from all classes in Summer Session I and receive a $50 \%$ refund of tuition and fees.
Saturday. Fall 1996 deadline to file Petition for Reinstatement for students who have been academically dismissed a second or subsequent time. Deadline for Summer 1996 degree candidates to apply for graduation.
Monday. Last day for students enrolled in the first fiveweek term to drop an individual course or withdraw from all classes and receive a grade of "W."
Monday. Last day to withdraw from all classes for the first five-week term.
Wednesday and Friday. Final examinations for courses in the first five-week term.
Thursday. Independence Day Holiday.
Friday. Close of the first five-week term. Last day to withdraw from all classes in Summer Session II and receive a $100 \%$ refund of tuition and fees.
Monday. Classes begin for courses in Summer Session II. Late registration for Summer Session II. II. Last day to add a Summer Session II class.

Monday. Last day for students enrolled in the ten-week term to drop an individual course or withdraw from all classes and receive a grade of "W." Last day to withdraw from all classes in Summer Session II and receive a $50 \%$ refund of tuition and fees.

July 29

## August 5

August 7-9
August 19

Monday. Last day for students enrolled in the second fiveweek term to drop an individual course or withdraw from all classes and receive a grade of "W." Monday. Last day to withdraw from all classes for the second five-week and ten-week terms.
Wednesday-Friday. Final examinations for courses in the second five-week and ten-week terms.
Friday. Semester closes.

## Information Directory

Requests for information should be directed to the offices shown below. The University's address is: The University of Texas at San Antonio, San Antonio, Texas 78249. The main telephone number of UT San Antonio is (210) 619-4011.
Academic Advisement
Declared majors College DeansUndeclared majors . . . . . . . . Tomâs Rivera Center for Student AdvisingNew and transfer students ... Tomás Rivera Center for Student AdvisingAcademic Degree Programs and CoursesCollege DeansAdmission
Undergraduate and Graduate Director of Admissions
Career Planning Director of Career Services Center
Changes in Enrollment Registrar
Continuing Education Director of Extended Education
Credit by Examination Testing CenterDegree ApplicationRegistrar
Financial Aid, Loans, or Scholarships Office of Student Financial AidFinancial MattersBusiness Manager
General Information Tomás Rivera Center for Student AdvisingHealth ServicesStudent Health Services
International Students Office of International Programs
Parking University Police
Placement ServiceTeacherDirector, Office of TeacherAdvising, Certification, and Placement
Non-TeacherDirector of Career Services Center
Psychological Counseling Director of Counseling CenterDirector of Athletics
RefundsBusiness Manager
Registration Registrar
Residency Registrar
Student Activities Director of Student Activities
Student Employment Office of Student Financial Aid,Director of Student Employment and InternshipsVice President for Student AffairsStudent Services, GeneralStudents with DisabilitiesTeacher Certification ProgramTransfer of CreditRegistrar
Transcripts gistrar
Versan
Versan Veterans' Affairs RegistrarWithdrawal from UniversityRegistrar



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$$
\begin{aligned}
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& \text { William E. Stern } \ldots \ldots \ldots \ldots \text { Associate Vice President for Business Affairs } \\
& \text { Entest DeWinness Affairs } \\
& \text { A. Burl Henderson } \ldots \ldots \text { Associate Vice President for Information Technology } \\
& \text { OFFICE OF THE VICE PRESIDENT FOR DOWNTOWN } \\
& \text { OPERATIONS }
\end{aligned}
$$

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Director, Division of Foreign Languages
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Director, Division of Education
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## 2. ABOUT UTSA



## About UTSA

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## History and Organization

## History

UTSA celebrates its 25 th anniversary in 1994. It was created by a mandate from the 61st Texas Legislature on June 5, 1969, to be a university of the first class offering bachelor's, master's, and doctoral degrees "as are customarily offered at leading American universities." The first class of 671 graduate students was admitted in June 1973; upper-division undergraduates were admitted in September 1975, and lower-division undergraduates were admitted in June 1976. The first commencement ceremony was in August 1974. The UTSA Alumni Association was formed in 1978.

UTSA received full accreditation by the Southern Association of Colleges and Schools in December 1976. UTSA's first endowed professorship was established in 1981 in the life sciences. The first endowed chair was established in 1985 in the College of Business. The UTSA Honors Program was initiated in September 1985.

UTSA now has 42 undergraduate degree programs, 23 master's degree programs, and one doctoral degree program. It will be introducing several new programs at each level during the next few years, with the support of the South Texas Border Initiative.

Ninety-nine percent of tenured and tenure-track faculty hold a doctorate or terminal degree in their fields. Thirty-seven UTSA faculty have won Fulbright Fellowships to teach and conduct research in a foreign country. UTSA is in the top $30 \%$ of public universities in the State in research expenditures.

UTSA is one of the fastest-growing universities in the State; the Fall 1993 enrollment was 17,099 . Intercollegiate athletic programs were begun in 1981. A University Center and on-campus housing were added in 1986, and the scope of student organizations and activities increased.

Space on the campus now totals over 1.3 million square feet. Several new buildings, including a facility for UTSA Downtown, are being constructed.

## Mission

UTSA, a comprehensive public metropolitan university, is committed to freedom of inquiry and the creation of an environment in which people can teach, discover, learn, and enrich themselves and their community. Through its instructional, research, and public service programs, UTSA seeks to fulfill its mission, serve the needs of the multicultural population of San Antonio and the south Texas region, and emphasize programs that contribute to the technological, economic, and cultural development of the city, region, and state.

UTSA offers a wide range of academic degree programs leading to the bachelor's and master's degrees and selected doctoral programs. It offers students the knowledge and skills required to succeed in their chosen fields. In addition, UTSA provides the opportunity for all undergraduates to develop into truly educated individuals through the Core Curriculum.

UTSA provides access to its various degree programs to a broad constituency and maintains rigorous academic standards in requirements for successful completion
of its programs. Through flexible scheduling, varied course offerings, and student support services, UTSA encourages attendance by both traditional and nontraditional students.

UTSA emphasizes a balance of excellent teaching, research and creative activities, and scholarship. To this end, UTSA recruits and retains faculty who exemplify this balance and encourages faculty to engage in public service activities appropriate to their academic fields. UTSA encourages and facilitates multidisciplinary instructional, research, and public service efforts through its administrative structure, degree programs, and personnel policies.

Through its broad research efforts, UTSA both creates new knowledge through basic research and applies that knowledge to today's problems through applied research. UTSA seeks to facilitate the transfer of research findings into the work environment through continuing education and graduate-level programs for maintaining and upgrading specialized skills of professionals employed in San Antonio and the south Texas region.

UTSA seeks to enrich the cultural environment of The University and the community through its fine arts and humanities programming.

## Organization

UTSA is a component institution of The University of Texas System. Governance of The University is vested in the nine-member Board of Regents of The University of Texas System, whose members are appointed biennially by the Governor with the advice and consent of the Senate for six-year staggered terms.

The Board of Regents delegates administrative authority to the Chancellor of The University of Texas System. The administrative authority of each component institution, such as UTSA, is in turn delegated to the President of that component.

The President at UTSA is assisted by a staff including a Provost and Vice President for Academic Affairs, a Vice President for Administration and Planning, a Vice President for Business Affairs, a Vice President for Student Affairs, a Vice President for University Advancement, a Vice President for Downtown Operations, and an Executive Director of the Institute of Texan Cultures.

The Provost and Vice President for Academic Affairs provides the President with advice and counsel on academic matters, acts as a liaison between the President's Office and faculty committees concerned with academic affairs, and has direct responsibility for the development, administration, and quality of all academic programs, the administration of the academic budget, academic policy development and implementation, and all matters directly affecting faculty.

The Vice President for Administration and Planning provides the President with advice and counsel on the general administrative services of The University and acts as liaison between the President's Office and all University standing committees. This officer is responsible for affirmative action, strategic planning, human resource development, policy development, and the Office of Institutional Analysis.

The Vice President for Business Affairs provides the President with advice and counsel on fiscal affairs and has direct responsibility for the business operation of The University, including operation of the Physical Plant, Information Technology, University Police, General Services, and the Business Manager's Office. This
officer is also responsible for budget preparation and analysis, contract and grant administration, and personnel administration.

The Vice President for Student Affairs is responsible for overseeing student affairs and for providing advice to top administrators on all aspects of student activities at UTSA.

The Vice President for University Advancement is responsible for all areas of advancement, including development, communications, and alumni affairs within the academic Colleges and coordination with The University of Texas Institute of Texan Cultures.

The Vice President for Downtown Operations has responsibility for building UTSA's downtown presence and overseeing extended education, pre-college, and business outreach programs.

The Executive Director of the Institute of Texan Cultures is responsible for the administration and management of all Institute programs, activities, and exhibits; leadership in educational programming and content production; the dissemination of historical and cultural information to the public and the schools; the development and management of volunteer programs; and fundraising.

## Accreditation

The University of Texas at San Antonio is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award bachelor's, master's, and doctoral degrees.

## UTSA Downtown

The University is implementing a substantial expansion of its course offerings at locations outside its main campus. An increasing number of courses will be offered at a temporary facility at Cypress Tower ( 1222 North Main Street). Development of a permanent downtown facility on Durango Street is underway.

## Administrative Policies and Services

## Rules and Regulations of the Board of Regents

A student at UTSA neither loses the rights nor escapes the responsibilities of citizenship. Compliance is expected with both the penal and civil statutes of the State and federal governments, the rules and regulations of the Board of Regents, and the policies and procedures of The University.

All students of UTSA are subject to the rules and regulations governing student conduct and discipline as set out in Part One, Chapter VI of the Rules and Regulations of the Board of Regents of The University of Texas System, the UTSA Handbook of Operating Procedures, and the UTSA Student Guide to UTSA.

The Regents' Rules, Handbook of Operating Procedures, and Student Guide to UTSA have full force and effect as they concern all UTSA students. The Regents' Rules and the Handbook of Operating Procedures may be consulted in the offices of the President, the Vice Presidents, the Deans, and in the John Peace Library. The

Student Guide to UTSA is available from the Office of the Assistant Vice President for Student Life.

## Advisement

New, transfer, and continuing students with fewer than 30 semester credit hours of college work are classified as General Studies majors and must receive academic advisement in the Tomás Rivera Center for Student Advising. After the first 30 semester credit hours, students normally will select majors and will then obtain advisement in the Divisions or Colleges which offer their major programs. (Some programs require a later declaration of major.) Transfer students with over 30 credit hours must receive initial advisement in the Tomás Rivera Center.

## Hazing

State law ( $\S 4.51$ through 4.58, Texas Education Code) defines hazing as "any intentional, knowing, or reckless act, occurring on or off the campus of an educational institution, by one person alone or acting with others, directed against a student, that endangers the mental or physical health or safety of a student for the purpose of pledging, being initiated into, affiliating with, holding office in, or maintaining membership in any organization whose members are or include students at an educational institution."

Hazing includes but is not limited to

- any type of physical brutality, such as whipping, beating, striking, branding, electric shocking, placing of a harmful substance on the body, or similar activity;
- any type of physical activity, such as sleep deprivation, exposure to the elements, confinement in a small space, calisthenics, or other activity that subjects a student to any unreasonable risk of harm or that adversely affects the mental or physical health or safety of the student;
- any activity involving consumption of food, liquid, alcoholic beverage, liquor, drug, or other substance which subjects the student to an unreasonable risk or harm or which adversely affects the mental or physical health of the student;
- any activity that intimidates or threatens the student with ostracism, that subjects the student to extreme mental stress, shame, or humiliation, or that adversely affects the mental health or dignity of the student or discourages the student from entering or remaining registered in an educational institution, or that may reasonably be expected to cause a student to leave the organization or the institution rather than submit to such acts; and
- any activity that induces, causes, or requires the student to perform a duty or task which involves a violation of the Penal Code.

Under state law, individuals or organizations engaging in hazing could be subject to fines and charged with a criminal offense. According to the statute, a person can commit a hazing offense

- by engaging in a hazing activity;
- by soliciting, directing, encouraging, aiding, or attempting to aid another in hazing;
- by intentionally, knowingly, or recklessly allowing hazing to occur; or
- by failing to report in writing to the Assistant Vice President for Student Life first-hand knowledge that a hazing incident is planned or has occurred.

The fact that a person consented to or acquiesced in a hazing activity is not a defense under the hazing law.

The penalty for failure to report hazing activities is a fine of up to $\$ 1000$, up to 180 days in jail, or both. Penalties for other hazing offenses vary according to the severity of the injury which results; they include fines from $\$ 500$ to $\$ 10,000$ and/or up to two years in jail.

In an effort to encourage reporting of hazing incidents, the law grants immunity from civil or criminal liability to any person who reports a specific hazing event to the Assistant Vice President for Student Life, and immunizes that person from participation in any judicial proceeding resulting from that report.

State law does not affect or in any way restrict the right of UTSA to enforce its own rules against hazing, and The University may take disciplinary action for conduct that constitutes hazing regardless of whether public authorities prosecute students under State law. Part One, Chapter VI, § 3.28 of the Regents' Rules and Regulations provides that hazing with or without the consent of the student is prohibited by the System and a violation of that prohibition renders both the person inflicting the hazing and the person submitting to the hazing subject to discipline. Initiations or activities by organizations may include no feature which is dangerous, harmful, or degrading to a student, and a violation of this prohibition renders both the organization and the participating individuals subject to discipline.

## Solicitation/Distribution of Materials

Part One, Chapter VI, § 6.6 of the Regents ${ }^{\prime}$ Rules and Regulations states that no solicitation shall be conducted on the grounds, sidewalks, or streets of the UTSA campus, except by the agents, servants, or employees of this institution acting in the course and scope of their employment, or by the Student Representative Assembly (SRA), or by a registered student, faculty, or staff organization of this institution. Such solicitation must adhere to the following rules:

- Academic or institutional programs being carried on in the buildings shall not be disturbed or interfered with.
- The free and unimpeded flow of pedestrian or vehicular traffic on sidewalks and streets and at places of ingress and egress to and from campus buildings shall not be interrupted.
- The person(s) being solicited shall not be harassed, embarrassed or intimidated.

Non-University groups, individuals, or associations are not permitted to solicit, distribute, or circulate any petition, handbill, or other literature in University buildings or on the grounds.

Newspaper vending is permitted only in the areas designated in advance by the President or his delegate. Any request for other newspapers and/or additional distribution areas should be directed in writing to the Vice President for Business Affairs.

Prior authorization to conduct solicitations or distribution of materials on campus by registered student organizations or by registered faculty or staff organizations must be obtained through the Office of the Vice President for Student Affairs (student organizations) or through the Office of the Vice President for Business Affairs (faculty or staff organizations). Persons desiring to conduct solicitations or
to distribute materials strictly for personal reasons or for personal profit or gain will under no circumstances be granted permission to do so.

Any violation of the above policy should be reported to the Office of the Vice President for Business Affairs.

## Student Right-to-Know and Campus Security Act

In compliance with the Student Right-to-Know and Campus Security Act (20 U.S.C., §§ 1092(a), (e), and (f), as amended), UTSA collects specified information on campus crime statistics, campus security policies, and institutional completion or graduation rates. Pursuant to the federal law, alleged victims of violent crime are entitled to know the results of campus student disciplinary proceedings concerning the alleged perpetrators. UTSA will make timely reports to the campus community on crimes considered to be a threat to students and employees and reported to campus police or local police agencies.

Every September, UTSA will publish and distribute an annual report of campus security policies and crime statistics to all current students and employees, provide copies of the report to applicants for enrollment or employment upon request, and submit a copy of the report to the Secretary of Education upon request. The annual campus crime statistics report will reference crimes which occur on property owned or controlled by UTSA and may be supplemented by listing crimes which occur off campus in buildings or property owned or controlled by student organizations that are registered by UTSA, when such statistics are available from local police departments. The annual security report contains UTSA's policy regarding sexrelated offenses, including sexual assault prevention programs, education programs to promote awareness of sex offenders, administrative disciplinary procedures and sanctions for offenders, and counseling and student services for victims.

Prior to the offer of athletically related student aid to a potential student athlete, UTSA will provide certain information on graduation rates specified by the federal law to the prospective student and to the student's parents, guidance counselor, and coach.

## UTSA Student Graduation Rate

UTSA serves undergraduate and graduate students from a wide range of backgrounds: some undergraduate students are recent high school graduates; others are completing a degree after pursuing other goals for a number of years; some students work full- or part-time and extend their education over a longer period of time; and some students enroll in classes for personal or professional enrichment but choose not to pursue a degree.

For the portion of UTSA's students who began their first semester of attendance at UTSA in 1986 as first-time freshmen enrolled full-time as degree-seeking students, the graduation rate within a six-year period was $26.3 \%$. This percentage does not include students who may have subsequently decided to attend college part-time rather than full-time, extending their education over a longer time period; students who transferred to a junior college to continue their studies; or students who later chose to become non-degree-seeking students. Additionally, not considered in the calculation of this graduation rate is the large number of students who initially enrolled at UTSA as part-time students, who transferred to UTSA to complete their degrees after attending elsewhere, or who attended for reasons other than to obtain a degree.

## Student Grievances

UTSA students may need to pursue questions or concerns involving academic or non-academic aspects of student life. General grievance procedures are set forth below. Students may consult with the Office of Student Life if additional information is needed concerning the pursuit of any grievance.

A student with a grade grievance should refer to the Grade Grievance Procedure section in the General Academic Regulations chapter of this catalog.

A student grievance may involve a UTSA employee or other students. A student with a grievance involving a university employee should first seek to resolve the problem with the employee. If the matter cannot be resolved with the employee, the grievance can be forwarded to the employee's supervisor. A student who believes another student has violated the Student Code of Conduct may institute a proceeding against a student by filing a complaint with the Office of Student Life.

## Financial Aid

The Office of Student Financial Aid administers programs to assist students and parents in financing an education at UTSA. Financial aid programs for undergraduate students include the College Work Study program, Pell Grants, Supplemental Educational Opportunity Grants, Texas Public Education-State Student Incentive Grants, Perkins Student Loans, and several Federal Family Education Loan (FFELD) programs.

A yearly determination of eligibility/financial need is required for most forms of financial aid. The student must submit a financial statement to a federally approved agency, which carries out a financial need analysis.

To be considered for financial aid, a student must

1. be officially admitted to UTSA;
2. file a Free Application for Federal Student Aid-FAFSA (the Financial Aid Application Form from the College Scholarship Service will be accepted in lieu of the FAFSA);
3. file a UTSA application for Financial Aid with the Office of Student Financial Aid;
4. meet deadlines set by the Office of Student Financial Aid;
5. not be in default on any Title IV, HEA loan made for attendance at any institution;
6. not owe a refund on any Title IV, HEA grant received for attendance at any institution;
7. make satisfactory academic progress as required to fulfill federal requirements for financial aid eligibility; and
8. be classified by the Admissions Office as a degree-seeking student.

Further,

- Transfer students must submit a Financial Aid Transcript from each postsecondary school attended, whether they received financial aid there or not.
- Students who are not U.S. citizens must provide proof of eligibility.
- In some cases, students will be asked for documents verifying the information reported on their financial aid applications. This information must be provided to remain eligible for aid.

Once the application process is complete, students will automatically be considered for the Pell Grant and Guaranteed Student Loan programs. However, all other major forms of financial aid are granted on a first-come, first-served basis and have limited funds. Students are strongly encouraged to have their applications completed by March 31 of each year.

Further information and application forms are available from the Office of Student Financial Aid. A list of scholarships available to UTSA students is also available (and is published each semester in the Schedule of Classes).

## Veterans' Assistance

Educational benefits are available to veterans, eligible dependents of veterans, and personnel on active service in the Armed Forces. The Office of Veterans' Affairs, located in the Office of Admissions and Registrar, provides the necessary forms and current information about the benefits provided under the law.

Students receiving veterans' assistance must keep themselves informed of and meet the academic standards of progress required of all VA recipients. These standards are set by Veterans Administration regulations and are monitored by the Texas Education Agency.

## Identification Cards

Student identification cards are mandatory. A one-time, $\$ 10.00$ nonrefundable charge for student photo identification cards is assessed when the student first registers at UTSA. The student must go to the Photo I.D. Office to have a picture made and fill out the necessary form. If a student fails have the card made or fails to claim the card during the first semester, the fee is forfeited and another photo identification charge will be assessed in the next semester.

The card is valid as long as the student remains enrolled at UTSA. A $\$ 10.00$ charge is assessed to replace a lost or stolen card. For information on I.D. cards, contact the Photo I.D. Office.

## Availability of Directory Information

UTSA student educational and directory records are maintained in accordance with State and federal laws. Directory information is available upon public inquiry, and includes a student's

[^4]Degrees and awards received
Most recent previous educational institution attended
A student's consent to the release of this information is presumed. Students who do not want this information available to the public must submit a written request for confidentiality to the Office of Admissions and Registrar. When a student has requested confidentiality, The University responds to public inquiry by verifying enrollment only.

In a regular (Fall or Spring) semester, the request must be turned in between the first day of registration and the twelfth day of classes. In a Summer term, the request must be turned in between the first day of registration and the fourth day of classes. The request for confidentiality will remain in effect until the student makes a written authorization releasing the information.

For more specific information concerning the disclosure, review, release, and confidentiality of student records under the Family Educational Rights and Privacy Act (20 U.S.C., § 1232 g ), consult the Student Guide to UTSA (available in the Office of the Assistant Vice President for Student Life).

## Students with Disabilities

UTSA does not discriminate on the basis of disability. Special assistance is provided to students with disabilities through the Office of Disabled Student Services.

## Lost and Found

All abandoned articles found on the UTSA campus are stored in the University Police Office. Lost items may be claimed by showing proper identification of ownership. UTSA will dispose of items that are not claimed within 60 days.

## Campus Resources

## The UTSA Library

The UTSA library is housed in the John Peace Library building. As of Fall 1992, the collections included approximately 500,000 volumes, 101,000 government publications (federal, State, and local), 1.95 million microforms, and approximately 2,200 subscriptions to periodicals. The library is a designated federal and State depository.

The Library's Special Collections Department focuses on Western Americana and Texana. The John Peace Collection contains books and documents from the Texas Republic, and the Kathryn Stoner O'Connor Collection contains early Texan and , Mexican materials.

The library also has full audiovisual capability, music listening facilities, and a curriculum materials center. Copiers for paper and microforms are available. Carrels, group study rooms, lounges, and faculty study rooms are located throughout the building.

A full range of interlibrary loan services, on-line catalog, and on-line or on-disk computer searching is available. The library is a member of the Council on Research and Academic Libraries, a library network devoted to developing and strengthening the information resources and services in the San Antonio area.

## Tomás Rivera Center for Student Advising

The newly established Tomás Rivera Center for Student Advising combines important academic advisement functions with an array of support services for students. The Center advises new students with 30 or fewer semester credit hours of college coursework, undeclared majors with over 30 semester hours of coursework, students in the Provisional Admission Program, students with TASP deficiencies, and transfer students in their first semester at UTSA.

The Center provides students with information on UTSA programs, services, and events. It oversees the UTSA Mentoring Program and offers assistance to groups of students such as San Antonio Educational Partnership students, freshmen on probation, and freshman minority students.

The Center also offers academic tutorial instruction in specific subject areas as well as general instruction in successful study habits and techniques. Tutors are provided on a consistent weekly schedule. Individual and group tutoring sessions are provided in most subject areas. Self-paced computer software programs are available on a walk-in basis to review concepts and practice skills. Study skills classes are provided. Instructional video and audio tapes are available in subject areas that parallel and augment tutoring and study skills lessons. Introductory computer skills classes in word processing and spreadsheets are provided for a nominal fee.

## Office of International Programs

The UTSA Office of International Programs supports international components in undergraduate academic programs, promotes international research, develops and manages cooperative agreements and programs for academic exchanges, encourages enrollment of qualified students from other nations, provides special services to international students to maximize their academic success and intercultural exchange, maintains active relationships between UTSA and its international alumni and past participants in study abroad and exchange programs, and provides assistance in obtaining financial aid for students and faculty wishing to study, teach, or perform research abroad.

UTSA maintains cooperative programs with the National Autonomous University of Mexico (Mexico City), East China Normal University (Shanghai, China), Kyoto University of Foreign Studies (Kyoto, Japan), Queensland University of Technology (Brisbane, Australia), and Austral University (Valdivia, Chile). Similar links are being established with other institutions in Argentina, Bolivia, Canada, China, Costa Rica, Ecuador, England, France, Germany, Hungary, Ireland, Japan, Mexico, Russia, and Sweden.

## International Student and Scholar Office

The International Student and Scholar Office is a component of the UTSA Office of International Programs. The Advisor in this office assists visiting international scholars, exchange faculty, and undergraduate and graduate students with the procedures and documentation necessary for entering the United States and maintaining legal status. This office also provides support and programming for
international students and faculty visitors, and is responsible for international outreach programs in the communities and schools of south Texas.

## Study Abroad/Exchange Programs

Advice about exchange and study abroad programs can be obtained in the UTSA Office of International Programs.

Exchange Programs. UTSA is a participant in the International Student Exchange Program. Students accepted into exchange programs are assisted in obtaining the lowest possible cost for study in more than 105 institutions in 45 countries, including Australia, Canada, Chile, China, Colombia, England, Finland, France, Germany, Honduras, Japan, Kenya, Korea, Mexico, Russia, Tanzania, and Uruguay.

UTSA is also a member of the National Student Exchange program, which provides students the opportunity to study at over 110 institutions in 45 states, Guam, the U.S. Virgin Islands, and Puerto Rico. Member institutions include the University of Alaska system, the University of Hawaii, the University of Maryland, the University of Massachusetts, the University of Oregon, and SUNY Stony Brook, among others. Participating UTSA students pay in-state tuition and fees (either at UTSA or at the host exchange institution).

Study Abroad Programs. Study abroad programs, some with specific disciplinary focus, are available in England (London), Mexico, and several other countries.

## Office of Minority Affairs

The Office of Minority Affairs helps minority students and other under-represented groups have successful and rewarding college experiences and graduations. It provides college transition support services and career goal clarification.

In addition, the Office presents programs that educate the UTSA and San Antonio communities about the varied cultural backgrounds of University students, offering culturally diverse students a sense of self-pride and belonging. It seeks to heighten sensitivity to multiculturalism and respect for individual differences.

## Disabled Student Services

The Office of Disabled Student Services at UTSA coordinates support services and equipment for students with disabilities. Its goal is to help qualified students participate as fully as possible in university life. Some of the services and equipment available include registration assistance, note-taking, test accommodation, TDD, Amigos vehicles, an Arkenstone Scanner with DecTalk and Vocal-eyes, CCTVs, and a Braille Printer.

Eligible students should contact the Office prior to the beginning of the semester to discuss their needs and make appropriate arrangements. A disability verification letter and an interview with the coordinator are required before services will be provided.

## The UTSA Art Gallery

The UTSA Art Gallery enhances the teaching, research, and outreach missions of the College of Fine Arts and Humanities. It provides a setting for visual and oral presentations for the UTSA and San Antonio communities.

The Art Gallery is an educational tool for students pursuing a career in art. Exhibitions and collections reflect the academic curriculum, provide avenues for research, and present opportunities for interpretation and designing, preparing, and installing exhibits. Biennial exhibits by members of the faculty of Art and Architecture are presented, as are exhibits by national and international artists.

## The University Bookstore

The University Bookstore, operated by Barnes and Noble Bookstores, Inc., is located on the first level of the Science building. It maintains as complete an inventory as possible of all required and recommended books for UTSA courses, as well as stocking general school supplies, art materials, soft goods, decals, greeting cards, and a variety of gift items.

## The Computer Store

A UTSA-owned and operated computer store is located on the first floor of the Science building and offers computer systems and software at educational discounts to UTSA students, faculty, and staff.

## The University Food Service

There are two cafeterias on campus, one on the first level of the John Peace Library building and one in the University Center. Operated by ARA Dining Services, these cafeterias provide breakfast, lunch, dinner, snacks, daily specials, and salad bars. A sandwich shop is located on the first level of the Humanities-Business building. The Roadrunner Roost in the University Center offers a "pub" environment.

All campus dining facilities accept Roadrunner Express food cards. These cards, available to all UTSA students, operate on a declining balance system. The University Food Service also offers catering for large and small groups. See the Food Service Office in the Library building for more information.

## Information Technology (Computing Resources)

Computing resources at UTSA include two centrally supported IBM 4300 series systems, a Sun Microsystems/670 server, a modern student computing laboratory with 130 networked personal computers, and 80 terminals for academic IBM use. Specialized facilities in the College of Sciences and Engineering include a Scientific Visualization Lab with Silicon Graphics workstations, a CAD/CAE lab with Sun and DEC workstations, and an artificial intelligence lab with Symbolics and LMI LISP-based systems. Ten other specialized student computing facilities are located on campus. A major expansion of student computing resources is underway.

A campus-wide fiber-optic backbone network connects all facilities and provides links to wide-area networks (BITNET, Internet, THENet, NSFNet) with electronic mail, file transfer, and remote log-in capabilities. Off-campus access is supported via dial-up modems that connect to all mainframe systems and network resources.

Supercomputing facilities at The University of Texas System Center for High Performance Computing include a Cray x-MP/24 and 14se with Convex and VAX interfaces accessible through the network.

Administration information systems and the University Library On-Line Catalog (NOTIS) are supported on one of the IBM 4381 processors. Services include automated telephone registration, integrated on-line student information, and other administrative support systems.

## Student Life

## The University Center

The University Center is located on the West Paseo, between the HumanitiesBusiness and Physical Education buildings. It houses services, facilities, and amenities for the University community, including an Information Center with a Rainbow TicketMaster outlet, an ATM, a copy shop, dining facilities such as Chick-fil-A and the Roadrunner Roost, the Quarters recreation center, and television lounges. In addition, a lounge, large multipurpose room, meeting rooms, and work spaces for registered student organizations are available. The Student Activities Office on the second floor provides offices for the student government, the Campus Activities Board, the Student Activities staff, and a campus message center for registered student organizations. The University Center is currently being expanded.

## Student Activities

Student activities enhance classroom education, assist students to develop leadership qualities, develop interpersonal skills, and create a stimulating campus environment.

## Student Organizations

UTSA recognizes student organizations based on social, service, cultural, political, and academic interests. A message center for registered student organizations is located in the Student Activities and Organizations (SAO) Office in the University Center. The SAO Office also coordinates the Campus Activities Board, the Student Government, registered student organizations, leadership development programs, and fraternities and sororities.

## UTSA Alumni Association

The UTSA Alumni Association seeks to strengthen ties among The University, its past, present, and future students, and the community in the interests of academic excellence. It provides scholarships to new and current students. Alumni-sponsored activities include an annual meeting each fall, the 5K Hightailer, and Homecoming.

The Association was established in 1977 and incorporated in 1978. It is a duespaying membership organization governed by a 21 -member elected board of directors. A director of alumni programs manages the daily operations.

## Intercollegiate Athletics

UTSA fields men's and women's teams for intercollegiate competition in Division I of the NCAA. Men's sports include basketball, baseball, cross country, golf, in-
door and outdoor track, and tennis. Women's sports include basketball, cross country, indoor and outdoor track, softball, and volleyball.

All currently enrolled students receive free admission to any on-campus UTSA athletic event.

## Intramural and Recreational Activities

UTSA offers a wide range of intramural programs and recreational activities. The facilities available in the Convocation Center and the Physical Education Building include gymnasiums for basketball, badminton, and volleyball, two weight rooms, ample indoor jogging space, an outdoor 400 -meter synthetic-surfaced track with a grass playing infield, intramural fields for soccer, flag football, and softball, and a tennis center. A newly completed softball and baseball complex is adjacent to the outdoor track.

Intramural sports offered include tennis, track, volleyball, badminton, shuffleboard, table tennis, softball, soccer, and flag football.

## Living Accommodations

On-Campus. UTSA, in partnership with the private sector, has developed a contemporary approach to campus housing. Dormitory and apartment housing is available on campus.

Residence Halls. Chisholm Hall residence hall is open to all students and offers traditional-style accommodations with two-person rooms with private baths. All utilities are included. Residents may make 24-hour-a-day use of the adjacent Activity Center, with TV, game room, and study lounge. A junior-olympic-size indoor swimming pool is open 15 hours per day. For additional residence hall information, contact Chisholm Hall at (210) 694-6700.

Apartments. University Oaks Apartments opened in Fall 1992 and houses 450 students in 200 apartment units. Efficiencies and one-, two-, and four-bedroom units are available. Other amenities include a swimming pool, jacuzzi, basketball and volleyball courts, and limited-access gates. An additional 200 units opened in Fall 1993. For additional on-campus apartment information, contact the University Oaks Office at (210) 561-8699.

Off-Campus. Student Housing Services, located within the Student Life Office, makes an off-campus housing directory available to help students find accommodations in the San Antonio area. Contact the Student Life Office at (210) 691-4720 for on- or off-campus housing information.

## Health and Counseling

## Student Health Services

University Student Health Services offers limited medical capabilities. When UTSA is in session, a registered nurse is on duty during normal class hours. When needed, a referral is made to a physician for medical treatment.

Incoming students must return the Health Information Form included in UTSA's application for admission to University Student Health Services. Proof of current
immunization for TD (tetanus-diphtheria) and MMR (measles, mumps, and rubella) is required. Student Health Services can provide these immunizations if students are not current. International students must have a tuberculosis (T.B.) skin test within six weeks of admission, and any student with positive results must show proof of appropriate follow-up and treatment. All students are encouraged to receive the complete series of Hepatitis $B$ vaccine.

UTSA recognizes that Human Immunodeficiency Virus (HIV) and Hepatitis B virus (HBV) are serious public health threats. UTSA's policy on HIV and HBV infection, as well as educational pamphlets about methods of transmission and prevention of HIV and HBV infections, is available at Student Health Services.

Students should carry health and accident insurance. Out-of-town students should be able to verify insurance coverage to avoid delays in obtaining medical treatment.

## Counseling Center

The Counseling Center provides professional services to help meet the personal and developmental needs of currently enrolled students. Staff psychologists use counseling techniques, psychological assessment, and other aids. All counseling is free, confidential, and on a voluntary basis.

Services include individual sessions for personal and educational concerns, services to couples with relationship difficulties, and group sessions offered on a regular basis on topics such as vocational choice, assertion training, interpersonal communication skills, stress management, understanding sexual orientation, and living with HIV. The Counseling Center also provides assessment for career decision making or for the possibility of a learning disability. In addition, self-help cassette tapes are available for listening in person or by phone on a variety of topics, ranging from friendship building to suicidal crisis.

## Orientation and Freshman-Year Programs

The mission of the Office of Orientation and Freshman Year Programs is to provide academic and support services for freshmen in their first 30 semester hours at UTSA. All freshmen with no previous college credit hours are required to participate in orientation before registering for classes.

Orientation programs are offered for freshmen and transfer students each semester. During the summer, freshmen entering UTSA in the Fall participate in two-day orientation programs, which include tours of the campus, academic advising, registration, and exposure to campus services and programs. The summer program also includes family orientation programs designed to inform family members of new students about UTSA services and programs and assist the transition of having a family member at college. Summer and spring orientation programs are also conducted.

Other programs include Non-Traditional Student Orientation programs in the summer for students who are 24 or older, work full-time, have children, or are married; Roadrunner Camp, an off-campus leadership development program for new freshmen entering UTSA in the Fall semester; and the Start-Up Seminar, a program for students re-entering college life that emphasizes study skills development. Special programs and services just for freshmen include a Freshman Phone-athon during the sixth week of classes, a new student newsletter called the New

Student Notebook, and a parent and family newsletter titled Family Focus. In addition, the Orientation Office assists the Office of International Programs and Studies to provide an additional new student information session for international students prior to the beginning of each semester.

## Testing Center

The Testing Center provides University-wide testing services. National and State tests are given on national and state testing dates. Local assessment tests are regularly scheduled. Calendar dates for all tests are available at the Center.

Students are encouraged to satisfy degree requirements through credit by examination (see General Academic Regulations). The Center offers a brochure on Credit by Examination at UTSA which covers the various tests which are accepted for credit.

## Career Services Center

The Career Services Center offers a variety of services and programs for career counseling and placement. The Center helps UTSA students and alumni develop effective job search techniques to secure full-time professional employment. Center staff offer individual and group training for developing job hunting skills and methods (i.e., effective resume and letter writing, organizing a job search, interview skills training). Full-time job vacancy listings are posted in a computer job bank. Students are seen on either a "drop-in" or appointment basis.

The Center maintains a library of employer recruitment literature, resource books, audio-visual equipment and tapes, pamphlets, magazines, and informational guides on such topics as how to organize a job-hunting campaign, efficient correspondence procedures, preparing personal resumes, how to prepare for and be successful in job interviews, the average starting salaries for specific careers, etc. Two Career Fairs are held each year.

Graduating seniors and alumni who wish to sign up for job interviews must register with the Center and develop a placement file. There is a $\$ 10.00$ registration fee. The placement file will be active for one year. Through the on-campus interview program, graduating seniors and alumni meet representatives from business, industry, and government.

## Student Employment and Internships

The Office of Student Employment and Internships helps students seeking part-time employment while they are still pursuing degrees. Interested students can attend workshops on resumes, interviewing, and employment conditions in the part-time job market.

Other services include a computerized part-time job bank, employer listings, and a cooperative education library. Cooperative education and internship information sessions are offered every semester.

## Teacher Placement Service

The Teacher Placement Service is located in the Office of Teacher Advising, Certification, and Placement. It assists all UTSA undergraduates, graduates, or alumni who seek employment in the field of education by coordinating communica-
tion between students and employers and acting as a clearinghouse for student placement files. The Office also sponsors on-campus interviews and a semi-annual Teacher Job Fair.

Information concerning services and fees for placement files is available through the Office of Teacher Advising, Certification, and Placement.

## Research Organizations

## Institute for the Arts and Humanities (IAH)

The IAH is the research center for the College of Fine Arts and Humanities. It makes general information available on the arts of Western Europe and the Americas and provides assistance to individuals interested in research in the fine arts and humanities. The IAH is active in visual and performing arts, art history, architectural history, art criticism, literature, and foreign languages.

## Research Center for the Visual Arts

This specialized center is a component of the Institute for the Arts and Humanities and focuses on the study of Iberian and Interamerican visual arts, art and architectural history, and art criticism.

## Institute for Studies in Business (ISB)

The ISB is the research center for the College of Business, offering UTSA faculty and students a superior research environment for problem solving, interaction with the San Antonio business community, and applied economics and business training. The ISB interacts with the faculty of other Colleges to provide an interdisciplinary approach.

Activity focuses on problems encountered in public and private decision making and specific problems in the broad fields of marketing, economic analysis and modeling, human resource planning, information systems, financial analysis, and economic development research. Users are guided by specialized data files, a research library, and computer system.

## Institute for Research in Sciences and Engineering (IRSE)

The IRSE serves as the research center for the College of Sciences and Engineering; it identifies research opportunities, assembles multidisciplinary teams from within the College of Sciences and Engineering and other Colleges, and assists in the development of grants and contracts. It interacts with the San Antonio community when additional expertise is required and participates in the Southwest Research Consortium. Specialized research centers are created when a research team becomes self-sustaining.

IRSE distributes information on federal, regional, and local funding sources bimonthly in the IRSE Newsletter. It also offers assistance to faculty in the preparation of proposals and the management of projects.

## Center for Water Research

The Center for Water Research is a component of the College of Sciences and Engineering, organized under the Institute for Research in Sciences and Engineering. Research is conducted by the Center's staff and UTSA faculty and students in the major areas of hydrogeology, surface water hydrology, geochemistry, geophysics, and geotechnical engineering.

Research and analysis capabilities include stable and unstable isotope geochemistry, water chemistry, borehole geophysical logging, surface geophysical surveys, structural geology of aquifer systems, microbiology of bioremediation, leakage and contaminant studies, mathematical modeling of ground-water flow and contaminant transport, surface-water modeling, economic analysis of water usage, formulation of decision models for water planning, and study of municipal water supply and treatment systems.

## Institute for Research in Social and Behavioral Sciences (IRSBS)

The IRSBS is the research center for the College of Social and Behavioral Sciences, and coordinates the activities of four subordinate components: the Center for Archaeological Research, the Center for Learning and Development Research in Education, the Office of Professional Development in Education, and the Office of Research on Teaching and Learning. These research components promote faculty and student research and assist the local community when necessary.

## Center for Archaeological Research

This center trains students in archaeology, promotes archaeological research in south and south central Texas and Mesoamerica, performs archaeological surveys for federal and State agencies, provides archaeological services to the local community, and sponsors regional, State, and national programs and conferences.

The Center's staff includes graduate and undergraduate students. The Center has conducted archaeological investigations in many parts of Texas, studied the ancient Maya in Guatemala, made a two-year study of a Spanish mission in Mexico, made a multiyear study of the prehistory and history of the Choke Canyon Reservoir area, and worked in Louisiana and New Mexico. In addition, the Center helps organize and support regional archaeological surveys and excavations and participates in local, state, and international conferences. The Center has administered over 400 contracts and grants, and results of Center investigations are published in nearly 250 volumes in 10 publications series.

The Center also promotes public participation in archaeological research through the "Friends of Archaeology" program, provides seed grants and assistantship stipends, and sponsors special lectures, studies, and publication of important reports.

## Center for Learning and Development Research in Education

This center pursues basic and applied research in learning and development, particularly in the educational process. It promotes research in learning and development in education; helps coordinate and develop cooperative faculty-student research; coordinates with school districts, social service agencies, and community agencies on problems of mutual interest; and solicits funds for research support. The Center
helps identify and coordinate faculty, student, and community interests, needs, and resources; many of its projects are cooperative community efforts.

## Office of Professional Development in Education

This office promotes professional development in educators. It develops advanced academic training programs, coordinates with UTSA faculty to staff such programs, presents professional training programs for educators, and evaluates academic training. It also works with local schools to establish programs that fit the needs of educators and the community.

The Office meets its goals through (1) graduate or undergraduate coursework in subject matter or professional education; (2) advanced academic training in subject matters; and (3) advanced academic training in other areas, such as classroom management training, pedagogy, and strategies and techniques for teaching. These three programs can be offered either on or off campus. Credit for coursework is accumulated along standard academic lines. Credit for academic training programs is set out by State guidelines, and 15 hours of training is equivalent to 1 hour of graduate coursework.

## Office of Research on Teaching and Learning

This office collaborates with educating institutions to critique teaching processes and promote student learning, studies teaching in varied settings, and interprets and disseminates research findings to the profession and the public. It promotes collaboration among researchers, teachers, and administrators in varied instructional settings for research into variables of teaching and learning. In addition, the Office sponsors workshops, conferences, media productions, and other avenues to promote understanding of the complexities and dimensions of teaching.

## Hispanic Research Center

The Hispanic Research Center operates under the auspices of the Provost and Vice President for Academic Affairs. Its mission is to provide an interdisciplinary University focus on research regarding Hispanics. The Center stimulates research on Hispanic populations in the United States and Texas and conducts faculty forums emphasizing research on Hispanics. Some research areas include education, social and political access, history, culture, business and economic opportunity, mental and physical health, and U.S.-Mexican relations.

## Institute of Texan Cultures

Originally the State of Texas exhibit at the 1968 World's Fair, the Institute was affiliated to UTSA in 1986. It has become a learning and communication center for Texas history and folk culture. Professionally trained staff members and volunteers use the displays of art and artifacts as a "living history" teaching laboratory.

## 3. <br> TUITION, FEES, CHARGES, \& DEPOSITS



## Tuition, Fees, Charges, and Deposits

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## Tuition and Fee Change

All tuition and fee amounts are subject to change by Legislative action or by action of the Board of Regents of The University of Texas System. Changes will be effective upon the date of enactment and will be reflected in fees charged.

## Methods of Payment

Students are entitled to enter class or laboratory meetings only after payment of their tuition and fees has been arranged using one of the alternatives discussed in this section. Once a payment option has been selected by the student at registration, no change in the payment plan will be allowed during the semester.

## Full Payment

Under this option, the student makes full payment of all tuition and fees in advance of the beginning of the semester.

## Installment Program

Under the installment option, the student makes a one-half payment of tuition and eligible fees in advance of the beginning of the semester and one-fourth payments prior to the start of the sixth and eleventh class weeks. There is a service charge of $\$ 16.00$ for this payment option. A late fee of $\$ 10.00$ will be added to the student's bill if an installment payment is not made by the due date.

Not all fees are eligible for payment in installments. The installment fee, parking fee, I.D. card fee, add/drop fee, and the property deposit must be paid in full on the initial billing.

Installment payment may only be chosen in regular (Fall and Spring) semesters. If this option is chosen, the student must complete a promissory note and file it in the Bursar's Office before the registration process is considered complete.

The availability of installment payment options is subject to change by Legislative action.

All financial aid will be applied to total tuition and fees before calculation of the payment plan. Partial installment payments will not be accepted. However, prepayment in full of an installment or of total installments will be accepted at any time after registration.

Refunds from dropping courses will be prorated to the remaining installments. Additional fees incurred from adding courses will be added to the balance due from registration, and the installment payments will be recalculated.

## Accepted Forms of Payment

Payment may be made by credit card or by personal check for the exact amount due, provided the bank transit number is encoded on the check in compliance with revised Federal Reserve Bank regulations. Students may not obtain cash by writing a check for a larger amount.

A bad check, whether given by mistake or otherwise, is likely to delay actual payment and result in a penalty (see Returned Check Fee). If a check used for payment of advance registration is returned and is not cleared before the start of the semester, a late registration fee of $\$ 15.00$ will be charged to the student.

Personal checks may be cashed in the University Bookstore for an amount up to $\$ 5.00$. Many local merchants will not cash out-of-town checks. It is recommended that students establish checking accounts in local San Antonio banks before enrolling so that they can easily cash checks in the city.

## Payment and Refund Policies

All policies regarding the payment or refunding of tuition, fees, and charges are approved by the Board of Regents of The University of Texas System and comply with applicable State statutes. If a person desires clarification of any matter relating to payment or refund of such charges, he or she should contact the office or administrative unit from which the charge or refund originated.

## Residence Regulations

A student's status as a resident or nonresident will be made in accordance with the Texas Education Code, as interpreted by the Texas Higher Education Coordinating Board. Residence requirements are explained by the Coordinating Board's booklet Residence Status, which is available at the Office of Admissions and Registrar. Students having any doubt about their residence status should consult the Office of Admissions and Registrar prior to registration.

A student entering or re-entering UTSA may be required to file a residence questionnaire. Only the authorization of the Registrar can change residence classifications.

## Refund Policy for Withdrawal or Dropped Courses

## Withdrawing from UTSA

Withdrawing is the formal discontinuance of a student's enrollment at UTSA, and involves the student's dropping of all classes. Depending on the time of withdrawal, a student may be entitled to a refund of some part of tuition and certain fees. The table opposite presents the descending scale of refund amounts for students withdrawing from UTSA.

UTSA refunds tuition and fees which were paid by a sponsor, donor, or scholarship to the source rather than directly to the student who has withdrawn, if the funds were made available through the institution.

| Semester | Time of Withdrawing | Amount of Refund of Tuition and Returnable Fees (supplementary fees, the general fee, laboratory fees, University Center fee, student services fee) |
| :---: | :---: | :---: |
| Regular (Fall or Spring) semester | Prior to first class day | $100 \%$ of applicable tuition and returnable fees |
|  | During the first 5 class days | $80 \%$ of applicable tuition and returnable fees |
|  | During the second 5 class days | $70 \%$ of applicable tuition and returnable fees |
|  | During the third 5 class days | $50 \%$ of applicable tuition and returnable fees |
|  | During the fourth 5 class days | $25 \%$ of applicable tuition and returnable fees |
|  | After the fourth 5 class days | No refund of tuition or fees |
| Summer semester | Prior to the first class day | $100 \%$ of applicable tuition and returnable fees |
|  | During the first, second, or third class day | $80 \%$ of applicable tuition and returnable fees |
|  | During the fourth, fifth, or sixth class day | $50 \%$ of applicable tuition and returnable fees |
|  | After the sixth class day | No refund of tuition or fees |

## Dropping Courses

Dropping refers to the removal of one or more individual courses from a student's schedule while that student remains enrolled in at least one course. A student dropping a class on or before the Census Date is entitled to a $100 \%$ refund of all corresponding tuition and fees. No refund will be given for individual classes dropped after the Census Date.

Summer terms are considered as one session for refund/drop purposes. If courses are to be dropped in either Summer session, please refer to Census Dates for refund purposes.

Refund amounts for courses dropped by a student who later withdraws from UTSA will be calculated according to the refund policy, and a refund will be made only if the original payment exceeds the established minimum amount. No refunds are made until fifteen days have elapsed from the Census Date. Refund checks are mailed to the address indicated when the student withdraws from The University.

## Concurrent Tuition

Students who concurrently register at more than one public institution of higher education in Texas may receive the benefits of a lower tuition rate. If, at the time of registration, the student can produce evidence of having already paid tuition at another such institution, the student should see the fee assessment station for possible adjustment of tuition.

## Exemption from Tuition and Fees

In certain cases outlined by the statutes of the State of Texas, students can be exempted from tuition and/or certain fees. The student must initiate action by applying for an exemption through the Office of Admissions and Registrar and providing satisfactory evidence that all conditions for the exemption are met.

Students who may be eligible for an exemption should apply for it at least one month before registration for the term in which they seek the exemption. Until an exemption is granted, the student is required to pay all tuition and fees.

The types of exemptions follow:

| Description | Eligibility | Fees Exempted |
| :---: | :---: | :---: |
| Accredited School Scholarship | Highest ranking graduate of an accredited Texas high school. | Tuition during first two regular (Spring and Fall) semesters following graduation |
| Texas Ex-Servicemen | 1. Resident of Texas for 12 months prior to registration. <br> 2. Bona fide resident of Texas at the time of entering the service. <br> 3. Served in the armed forces in World War I, World War II, Korean Conflict, or the Cold War. <br> 4. Honorably discharged. <br> 5. Not eligible for federal educational benefits. | Tuition, laboratory fees, supplementary fees, and general fee |
| Children of Disabled Texas Firemen and Peace Officers | Child (under 21) of disabled full-paid or volunteer firemen; full-paid municipal, county, or State peace officers; custodians of the Department of Corrections; or game wardens. | Tuition and required fees (laboratory fees, supplementary fees, the general fee, student services fee, medical services fee, and the University Center fee) |


| Students Who are Blind or Deaf | Person who is blind; person whose hearing is nonfunctional | Tuition, required fees (laboratory fees, supplementary fees, the general fee, student services fee, medical services fee, and the University Center fee), and the general property deposit |
| :---: | :---: | :---: |
| Children of Texas Veterans | 1. Either <br> - Child of a member of the armed forces who was killed in action in World War II, the Korean Conflict, or the Cold War; or - Orphan of members of the Texas National Guard killed since January 1, 1946, while on active duty. 2. Not eligible for federal educational benefits. | Tuition, laboratory fees, supplementary fees, and the general fee |
| Good Neighbor Scholarship (limited to 235 students/year) | 1. Native-born students from other nations of the American hemisphere. 2. Evidence must be furnished of native citizenship and scholastic qualifications. | Tuition |
| Firemen Enrolled in Fire Science Courses | Enrolled in course offered as part of fire science curriculum. | Tuition, laboratory fees, supplementary fees |
| Students in Foster Care | Student in foster care, other residential care, or under the conservatorship of the Department of Protective Services on or after the day preceding the student's 18 th birthday. | Tuition, required fees except the general fee (laboratory fees, supplementary fees, student services fee, medical services fee, and the University Center fee), and the general property deposit |
| Children of Prisoners of War or Persons Missing in Action | Dependent under 25 who receives majority of support from parent. Parent classified by Department of Defense as a Prisoner of War or Missing in Action at the time of registration. | Tuition, required fees (laboratory fees, supplementary fees, the general fee, student services fee, and the University Center fee) |

## Title IV Program Refund

As an institution participating in programs under Title IV of the Higher Education Act of 1965, as amended, UTSA is required to refund unearned tuition, fees, room and board, and other charges to certain students attending UTSA for the first time who have received a grant, loan, or work assistance under Title IV of the Act, or whose parents have received a loan on their behalf under 20 U.S.C., § 1087-2. The refund is required if the student does not register for, withdraws from, or otherwise fails to complete the period of enrollment for which the financial assistance was intended. No refund is required if the student withdraws after a point in time that is $60 \%$ of the period of enrollment for which the charges were assessed. A student who withdraws prior to that time is entitled to a refund of tuition, fees, room and board, and other charges that is the larger of the amount provided in § 54.006, Texas Education Code, or a pro rata refund calculated pursuant to $\S 484 \mathrm{~B}$ of the Act, reduced by the amount of any unpaid charges and a reasonable administrative fee (not to exceed $\$ 25.00$ ). UTSA will use the pro rata method for determining refunds of tuition and fees, as in the following example:

| FALL SEMESTER |  |  |  |
| :---: | :---: | :---: | :---: |
| Week | \% Refund | Week | \% Refund |
| 1 | 90 | 6 | 60 |
| 2 | 80 | 7 | 50 |
| 3 | 80 | 8 | 50 |
| 4 | 70 | 9 | 40 |
| 5 | 60 |  |  |

## Non-Payment of Debts

Students must provide full payment of tuition, fees (including late fees assessed), and other charges to The University when payment is due. Failure to do so can result in one or more of the following actions:

1. Denial of readmission of the student.
2. Denial of further registration.
3. Withholding of official transcripts.
4. Withholding a diploma to which the student would otherwise be entitled.
5. Withholding of grades.
6. All penalties and actions authorized by law.

Students who have any of the above actions against their record have the responsibility to clear any obligations with The University and see that the Office of Admissions and Registrar is notified. No further University services will be provided to the student until all obligations are cleared.

## Procedural Fees

## Application Fee

A fee of $\$ 20.00$ is required of all prospective students who file an application for admission to UTSA. It is also charged upon reapplication for admission following academic dismissal.

## Late Registration Fee

A late registration fee of $\$ 5.00$ is charged for the first day of late registration, and an additional $\$ 2.50$ per day is assessed each following day to a maximum of $\$ 15.00$. This fee is not refundable, and may only be waived by the President or an authorized delegate in extenuating circumstances.

## Add/Drop Fee

A fee of $\$ 2.00$ is charged for each add or drop transaction which is processed during the Add/Drop period (from the first class day through the Census Date) of each semester. This fee is not charged during telephone registration and for adds or drops initiated by the University. Add/Drop fees are not refundable.

## Auditing Fee

All auditors of courses must submit an approved Request for Audit form to the Office of Admissions and Registrar. Auditing courses requires the approval of the instructor and the Director of the Division in which the course is offered.

UTSA students are charged a nonrefundable $\$ 25.00$ fee per course. Non-students are charged a nonrefundable $\$ 50.00$ fee per course. The fee is not required from non-students over 65 , provided space is available in the class.

Permission to audit may be obtained and fees paid during the late registration period only. Auditors of courses who wish to park vehicles on campus must register their vehicles and obtain parking permits from the UTSA Police Traffic Office.

Non-student auditors who wish library privileges may receive them by filling out a Friend of the UTSA Library application at the Circulation Desk in the UTSA Library and paying a nonrefundable fee. There are limits on the services offered to Friends of the UTSA Library cardholders; further details are available from the Circulation Desk.

## Credit by Examination Fee

A fee of $\$ 20.00$ per examination is required of students who challenge UTSA undergraduate courses. Procedures for challenging courses by examination are in the General Academic Regulations chapter of this catalog.

## Degree Application Fee

A $\$ 30.00$ application fee is required of candidates for a degree. Application for a degree must be made at the Office of Admissions and Registrar and the fee paid by October 1 for the Fall semester, February 1 for the Spring semester, and June 15 for the Summer session. This fee is not refundable and must be paid each time
an application for degree is filed. The degree application fee does not cover cap and gown rental or purchase.

## Semester Fees

## Mandatory Semester Fees

## First Semester Only

Students are assessed the following charges in their first semester at UTSA. These charges are assessed only once.

General Property Deposit. Every student must make a general property deposit of $\$ 10.00$ at the time of initial registration to protect The University from losses such as property loss, damage, or breakage, violation of rules in any University library or laboratory, failure to return keys issued by The University, or damage to or loss of any other University property.

The deposit is refunded upon request, less outstanding charges, only when the student officially withdraws or graduates from UTSA. When the property deposit refund is requested, the student has the option to use the refund to pay the first year's dues in the UTSA Alumni Association. The form for requesting a refund or for applying the refund to alumni dues is available at the Bursar's Office.

If no request is made for a refund of a property deposit within four years from the date of last attendance at UTSA, the deposit is considered forfeited and is then used for student scholarships.

Orientation Fee. An orientation fee of $\$ 35.00$ is assessed all new freshman and transfer students when they are admitted to UTSA. Orientation programs provide information about UTSA's academic requirements, campus services, and student activities. Almost all of the programs also include academic advising and registration. Students must pre-register for these programs. Further information is available from the Office of Orientation and Freshman Year Programs.

Student Photo Identification Charge. A one-time charge of $\$ 10.00$ is assessed for the issuance of a student photo identification card. The student is responsible for having the photo I.D. made at the UTSA Police Department. The photo I.D. must be made during the semester in which the fee is charged; otherwise the fee will be forfeited and another photo identification charge will be assessed in the next semester. The replacement fee for identification cards is $\$ 10.00$, which must be paid at the time of application for the replacement.

## Every Semester

Certain services and/or benefits are provided every semester by UTSA to all students. The fees for those services include tuition, the student services fee, the general fee, the University Center fee, the automated services and computer access fee, the university publication fee, the international education fee, and the medical services fee. All students are assessed these fees each semester. Refer to the tables on pp. 60-61 for semester totals of tuition and mandatory fees.

Tuition. Pursuant to Subchapter B, Chapter 54, Texas Education Code, each student who registers at UTSA is required to pay tuition according to the number
of semester credit hours for which registration is completed and according to his/her residence classification (see Table of Tuition and Mandatory Fees).

Student Services Fee. A Student Services Fee is charged to all students. This fee provides services and activities which are separate from regularly scheduled academic functions of The University and which directly involve or benefit students. These services and activities include recreational activities, intramural and intercollegiate athletics, artists and lecture series, cultural entertainment series, student government, and any other student activities and services specifically authorized by the Board of Regents. Students are assessed this fee on the basis of the number of semester hours they register for (see Table of Tuition and Mandatory Fees).

General Fee. The General Fee is a compulsory fee authorized by statute for the use and availability of University buildings and facilities. Students are assessed this fee on the basis of the number of semester hours for which they register (see Table of Tuition and Mandatory Fees).

University Center Fee. University Center fees are $\$ 30.00$ per student for each semester.

Automated Services and Computer Access Fee. Each student who registers at UTSA is required to pay a fee for automated services and computer usage. The minimum fee is $\$ 25.00$ and the maximum is $\$ 75.00$ per semester (see Table of Tuition and Mandatory Fees).

University Publication Fee. A $\$ 5.00$ per semester fee is assessed all UTSA students to cover the costs of providing catalogs, class schedules, and other official publications.

International Education Fee. A $\$ 1.00$ per semester fee is assessed all UTSA students to cover the costs of the international education program.

Medical Services Fee. A $\$ 12.00$ per semester fee is assessed all UTSA students for medical services provided at Student Health Services.

## Possible Additional Semester Fees

Depending on the major pursued or the courses selected by a student, additional fees may be required. Students should become aware of additional fees incurred by their major or course selection. Some (not all) of these fees are noted by the course listing in the Schedule of Classes.

## Educational Field Instruction Fee

A $\$ 25.00$ fee is assessed those UTSA students who take a semester of student teaching, and students in special education practicum settings, counseling, and student interns.

## ESL Auxiliary Fee

A $\$ 30.00$ per course fee is assessed international students taking courses in English as a Second Language (ESL).

TUITION \& MANDATORY FEES - SPRING \& FALL SEMESTERS/TEN-WEEK SUMMER SESSIONS

| No. of His. | Tuition: Resident Miliary | Tuition: <br> Non-Resident c. Foreign | Student Services Fee | Ceneral Fee | University Center Fee | Medical Services Fee | Automated Services Fee | Univ. Pub. Fee | Lntl. Fee | Totals: <br> Resideny/ Military | Totals Non-Resident \& Foreign |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1$ | \$120.00 | \$171.00 | \$12.00 | \$12.00 | \$30.00 | \$12.00 | \$25.00 | \$5.00 | \$1.00 | \$217.00 | \$268.00 |
|  | 120.00 | 342.00 | 24.00 | 24.00 | 30.00 | 12.00 | 25.00 | 5.00 | 1.00 | 241.00 | 465.00 |
| E-5.te 3 | 120.00 | 513.00 | 36.00 | 36.00 | 30.00 | 12.00 | 25.00 | 5.00 | 1.00 | 265.00 | 658.00 |
| -x 5 - 4 | 120.00 | 684.00 | 48.00 | 48.00 | 30.00 | 12.00 | 25.00 | 5.00 | 1.00 | 289.00 | 853.00 |
| $\mid=5$ | 140.00 | 855.00 | 60.00 | 60.00 | 30.00 | 12.00 | 30.00 | 5.00 | 1.00 | 338.00 | 1,053.00 |
| $5 \cdot 6$ | 168.00 | 1,026.00 | 72.00 | 72.00 | 30.00 | 12.00 | 36.00 | 5.00 | 1.00 | 396.00 | 1,254.00 |
| $7$ | 196.00 | 1,197.00 | 84.00 | 84.00 | 30.00 | 12.00 | 42.00 | 5.00 | 1.00 | 454.00 | 1,455.00 |
| $8$ | 224.00 | 1,368.00 | 96.00 | 96.00 | 30.00 | 12.00 | 48.00 | 5.00 | 1.00 | 512.00 | 1,656.00 |
| $9$ | 252.00 | 1,539.00 | 108.00 | 108.00 | 30.00 | 12.00 | 54.00 | 5.00 | 1.00 | 570.00 | 1,857.00 |
| $10$ | 280.00 | 1,710.00 | 118.00 | 120.00 | 30.00 | 12.00 | 60.00 | 5.00 | 1.00 | 626.00 | 2,056.00 |
| 5-4 11 | 308.00 | 1,881.00 | 118.00 | 132.00 | 30.00 | 12.00 | 66.00 | 5.00 | 1.00 | 672.00 | 2,245.00 |
| $15=12$ | 336.00 | 2,052.00 | 118.00 | 144.00 | 30.00 | 12.00 | 72.00 | 5.00 | 1.00 | 718.00 | 2,434.00 |
| $13$ | 364.00 | 2,223.00 | 118.00 | 156.00 | 30.00 | 12.00 | 75.00 | 5.00 | 1.00 | 761.00 | 2,620.00 |
| $14$ | 392.00 | 2,394.00 | 118.00 | 168.00 | 30.00 | 12.00 | 75.00 | 5.00 | 1.00 | 801.00 | 2,803.00 |
| $15$ | 420.00 | 2,565.00 | 118.00 | 180.00 | 30.00 | 12.00 | 75.00 | 5.00 | 1.00 | 841.00 | 2,986.00 |
| $16$ | 448.00 | 2,736.00 | 118.00 | 192.00 | 30.00 | 12.00 | 75.00 | 5.00 | 1.00 | 881.00 | 3,169.00 |
| $17$ | 476.00 | 2,907.00 | 118.00 | 204.00 | 30.00 | 12.00 | 75.00 | 5.00 | 1.00 | 921.00 | 3,352.00 |
| $18$ | 504.00 | 3,078.00 | 118.00 | 216.00 | 30.00 | 12.00 | 75.00 | 5.00 | 1.00 | 961.00 | 3,535.00 |
| Mins | $\$ 12000$ |  | $\begin{array}{r} \$ 1200 \\ \$ 11800 \\ \hline \end{array}$ |  |  |  | $\begin{array}{r} 525.00 \\ \$ 75.00 \end{array}$ |  |  |  |  |
| Per Cred Hout | $928.00$ | $\$ 171.00$ | $\$ 12.00$ | $\$ 12.00$ |  |  | $86.00$ |  |  |  |  |

TUITION \& MANDATORY FEES - FIVE -WEEK SUMMER SESSION

| No. of Hes. | Tuition: Resident Military | Tuition: Non-Resident \& Foreign | Student Services Fee | General Fee | University Center Fee | Medical Services Fee | Automated Services Fee | Univ. <br> Pub. <br> Fee | Int1. <br> Edu. <br> Fee | Totals: Resident/ Military | Totals Non-Resident \& Foreign |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$60.00 | \$171.00 | \$12.00 | \$12.00 | \$15.00 | \$6.00 | \$25.00 | \$2.50 | \$0.50 | \$133.00 | \$244.00 |
|  | 60.00 | 342.00 | 24.00 | 24.00 | 15.00 | 6.00 | 25.00 | 2.50 | 0.50 | 157.00 | 441.00 |
| 5*atin | 84.00 | 513.00 | 36.00 | 36.00 | 15.00 | 6.00 | 25.00 | 2.50 | 0.50 | 205.00 | 634.00 |
|  | 112.00 | 684.00 | 48.00 | 48.00 | 15.00 | 6.00 | 25.00 | 2.50 | 0.50 | 257.00 | 829.00 |
| $5$ | 140.00 | 855.00 | 59.00 | 60.00 | 15.00 | 6.00 | 30.00 | 2.50 | 0.50 | 313.00 | 1,028.00 |
| - 4.6 | 168.00 | 1,026.00 | 59.00 | 72.00 | 15.00 | 6.00 | 36.00 | 2.50 | 0.50 | 359.00 | 1,217.00 |
| 4ex 7 | 196.00 | 1,197.00 | 59.00 | 84.00 | 15.00 | 6.00 | 37.50 | 2.50 | 0.50 | 400.50 | 1,401.50 |
| 1-3max | 224.00 | 1,368.00 | 59.00 | 96.00 | 15.00 | 6.00 | 37.50 | 2.50 | 0.50 | 440.50 | 1,584.50 |
| $9$ | 252.00 | 1,539.00 | 59.00 | 108.00 | 15.00 | 6.00 | 37.50 | 2.50 | 0.50 | 480.50 | 1,767.50 |
| Exter 10 | 280.00 | 1,710.00 | 59.00 | 120.00 | 15.00 | 6.00 | 37.50 | 2.50 | 0.50 | 520.50 | 1,950.50 |
| E-tix 11 | 308.00 | 1,881.00 | 59.00 | 132.00 | 15.00 | 6.00 | 37.50 | 2.50 | 0.50 | 560.50 | 2,133.50 |
| $12$ | 336.00 | 2,052.00 | 59.00 | 144.00 | 15.00 | 6.00 | 37.50 | 2.50 | 0.50 | 600.50 | 2,316.50 |
| $13$ | 364.00 | 2,223.00 | 59.00 | 156.00 | 15.00 | 6.00 | 37.50 | 2.50 | 0.50 | 640.50 | 2,499.50 |
| $14$ | 392.00 | 2,394.00 | 59.00 | 168.00 | 15.00 | 6.00 | 37.50 | 2.50 | 0.50 | 680.50 | 2,682.50 |
| bexam 15 | 420.00 | 2,565.00 | 59.00 | 180.00 | 15.00 | 6.00 | 37.50 | 2.50 | 0.50 | 720.50 | 2,865.50 |
| F-t. 16 | 448.00 | 2,736.00 | 59.00 | 192.00 | 15.00 | 6.00 | 37.50 | 2.50 | 0.50 | 760.50 | 3,048.50 |
| Etax 17 | 476.00 | 2,907.00 | 59.00 | 204.00 | 15.00 | 6.00 | 37.50 | 2.50 | 0.50 | 800.50 | 3,231.50 |
| $\text { Emin } 18$ | 504.00 | 3,078.00 | 59.00 | 216.00 | 15.00 | 6.00 | 37.50 | 2.50 | 0.50 | 840.50 | 3,414.50 |
| $\begin{aligned} & \mathrm{MIN} \\ & \mathrm{MAX} \end{aligned}$ | $\$ 60.00$ |  | $\begin{array}{r} \$ 12.00 \\ \$ 59.00 \end{array}$ |  | $5$ | $\cdots$ | $\begin{array}{r} \$ 25.00 \\ \$ 37.50 \\ \hline \end{array}$ |  |  | - |  |
| Per Cred Hour | \$28.00 | $\$ 171,00$ | \$12.00 | \$12.00 |  |  | \$6.00 |  |  |  |  |

## Field Trip Fee

A supplementary fee is assessed students in certain courses to pay for the expenses of field trips. A notation of this fee appears with the course listing in the Schedule of Classes:

## Foreign Language Multimedia Learning Center Fee

Each student who registers in a UTSA foreign language course is required to pay a $\$ 7.00$ per course fee for use of the foreign language multimedia learning center.

## Foreign Student Insurance Fee

All international students are required to purchase the UT System Medical Insurance Plan for students, which covers basic medical expenses for injury and sickness. The fee is assessed as part of the regular tuition and fee charges. The amount is $\$ 153.00$ in Fall semesters and $\$ 243.00$ in Spring or Summer semesters.

A waiver of this fee is available, provided

1. the student provides proof of coverage by a comparable U.S. health plan; and
2. UTSA approves the comparable health coverage.

## Installment Payment Plan Fee

A $\$ 16.00$ charge is assessed when a student elects to pay tuition and fees under the installment payment plan. This charge is normally included in the first installment payment.

## Instrument Users Fee

In certain biology and music courses, an instrument users fee of $\$ 10.00$ per course may be charged. A notation of this fee appears with the course listing in the Schedule of Classes.

Laboratory Fee
In certain courses a laboratory fee is charged. This fee can range from $\$ 2.00$ to $\$ 30.00$, and may not exceed the actual cost of materials and supplies. A notation of this fee appears with the course listing in the Schedule of Classes.

## Music Major Fee

All music majors are charged a $\$ 25.00$ per semester fee.

## Parking Fees

All vehicles parked on campus must comply with the UTSA Parking and Traffic Regulations. Copies of these regulations are available in the University Police Office and during registration. Parking fees are shown in the table below.

| Class | Amount | Type of Permit |
| :---: | :---: | :---: |
| G \& D | \$36.00 | General \& Dormitory permit (purchased in Fall semester) |
|  | \$20.00 | General \& Dormitory permit (purchased in Spring semester) |
|  | \$15.00 | General \& Dormitory permit (purchased in Summer semester) |
| M | \$26.00 | Mini-car permit (purchased during Fall semester) |
|  | \$15.00 | Mini-car permit (purchased during Spring semester) |
|  | \$12.00 | Mini-car permit (purchased during Summer semester) |
| C | \$16.00 | Motorcycle, motor scooter, motorbike permit (purchased in Fall semester) |
|  | \$10.00 | Motorcycle, motor scooter, motorbike permit (purchased in Spring semester) |
|  | \$5.00 | Motorcycle, motor scooter, motorbike permit (purchased in Summer semester) |
| S | Varies | Carpool permit. Varies with semester purchased and with number of vehicles registered in carpool. |
| W | \$4.00 | Bicycle permit (purchased at any time) |

Parking permits are available for persons with disabilities in accordance with applicable law and UTSA Parking and Traffic Regulations.

Refunds for unused semesters of parking permits must be requested on the "Refund Request Form" available in the University Police Traffic Office. The permit must be returned with the request form. Refunds will be made in accordance with the current UTSA Parking and Traffic Regulations, article II, subdivision II, section 7.

## Physical Education Fees

Physical Education Activity Fee. $\$ 10.00$ per semester, required of students who register for a physical education course or activity. Lockers, towels, and locks are provided.

Equipment and Lane Fee. $\$ 60.00$ per semester, required of students registering for bowling courses.

Driving Range Fee. $\$ 44.00$ per semester, required of students registering for golf courses.

Swimming Pool Fee. $\$ 22.00$ per semester, required of students registering for swimming. courses.

Studio Art Fee
A fee of $\$ 10.00$ per course is assessed to students enrolled in courses in Art and Design which require use of any of the Division's studios.

## Supplementary and Special Fees

Certain art, music, and other courses may require supplementary or special fees. Notations of any such fees appear with the course listing in the Schedule of Classes.

## Visual Resource Collections Fee

A charge of $\$ 7.00$ per course is assessed to defray the costs of course support materials, such as the slide library, for art history and criticism (AHC) courses.

## Writing Materials Fee

A $\$ 4.00$ per course fee is assessed students taking English composition courses.

## Fees for Resource Use

## Career Services Center Registration Fee

UTSA students and alumni are invited to use the services of the Career Services Center. For a $\$ 10.00$ registration fee, the Center establishes a credential file for employment searches or graduate school or professional school applications. Registrants are eligible for the full range of services: on-campus interviewing, a part-time job service, resume and interview seminars, vacancy listings, direct job referrals, and duplication and mailing of credential file materials to prospective employers.

## Foreign Language Testing Fee

A charge of $\$ 10.00$ per course is assessed for testing to evaluate students for placement in foreign language programs.

## Locker Fee

Students who wish to use lockers in the library or the Divisions of Music or Art and Architecture will be charged a $\$ 15.00$ per semester fee.

## Pre-TASP Test Fee

This $\$ 3.00$ fee covers the costs of the pre-TASP placement test. The Pre-TASP fee applies to students who have not taken the TASP test prior to enrollment at UTSA.

## Teacher Placement Service Fee

Individuals may register for teacher placement services at the Office of Teacher Advising, Certification, and Placement. Currently enrolled UTSA students are not charged a fee. Non-students and UTSA alumni are charged an annual $\$ 5.00$ registration fee.

The services include the preparation, duplication, and maintenance of three sets of credentials. A handling fee of $\$ 5.00$ plus copying charges is assessed for each additional set requested.

## Transcript Fee

Standard transcript issuance costs $\$ 5.00$ for each official UTSA transcript to be processed and mailed within 48 hours. Rush transcript service, for a transcript to be provided within 1 hour, costs $\$ 8.00$. Transcript fees must be paid before a transcript will be issued.

## Tennis Center Fee

Dependents of full-time students, and UTSA faculty and staff and their dependents, may use the Tennis Center at specified hours. Payment of the Tennis Center fee entitles a person to use any other athletic facilities. Fees are payable at the Tennis Center Office prior to facility use.

Spouses or children of full-time students may use the Tennis Center and all other athletic facilities for one semester or for one entire summer, for a fee of $\$ 6.00$ per person. Lockers and locks are provided. Children must be accompanied by an adult. [A full-time undergraduate student is enrolled for at least 12 semester hours in a regular (Fall or Spring) semester or for 6 or more hours in a Summer term.]

Spouses and children of UTSA faculty and staff are charged $\$ 12.00$ per person (to a maximum of $\$ 40.00$ per family).

Guests of UTSA students, faculty, and staff may use the Tennis Center at certain hours for $\$ 1.50$ per person for a $11 / 2$-hour reservation. Guest fees are payable at the Tennis Center Office.

## UTSA Athletic Facility Use Fee

The spouses and dependents of full-time students may elect to pay an annual fee for the use of the gymnasium and facilities (specified hours only). Lockers and locks are provided. Children must be accompanied by an adult. Guests of UTSA students may use the facilities, and are charged on a per-use basis. The table below shows fee amounts.

Gymnasium and facility use fees are required of faculty and staff members. In addition, the spouses and dependents of faculty and staff may use the gymnasium and facilities (specified hours only) upon payment of an additional use fee. Lockers and locks are provided. Children must be accompanied by a parent or guardian.

Guests of UTSA faculty and staff may also use the facilities, and are charged on a per-use basis. The table below shows fee amounts.

| Category of Facility User |  | Annual Fee |
| :---: | :---: | :---: |
| UTSA Student | Spouse | \$3.00 |
|  | Child | \$1.00 |
|  | Guest | \$5.00 per visit |
| UTSA Faculty or Staff Member (to a maximum of $\$ 25.00$ per family) | Faculty/Staff Member | \$12.00 |
|  | Spouse | \$6.00 |
|  | Child | \$3.00 |
|  | Guest | \$5.00 per visit |
| UTSA Alumni Association Members |  | \$12.00 |

These fees are nonrefundable.

## Penalty Fees

## Late Payment Fee

A late fee of $\$ 10.00$ is added to a student's bill when an installment payment is not paid by the due date.

## Library Fines for Overdue Materials and Lost or Damaged Items

Fines are charged for overdue library materials and for library items that are lost or damaged. Borrowing and fine regulations of the UTSA Library are available at the Circulation Desk in the library.

## Parking Fines

Unpaid parking fines place a financial hold on student records and will interfere in the registration process or the transcript release process.

## Property Damage Charges

Property damage charges are assessed to students for property loss, damage, or breakage, violation of rules in any University library or laboratory, failure to return keys issued by The University, or damage to or loss of any other UTSA property. Charges are billed directly to the student or are collected by the department upon reissue of supplies or property. Failure to pay charges promptly results in denial of the student's readmission, re-enrollment, or issuance of transcripts.

## Returned Check Fee

A charge of $\$ 10.00$ is assessed for each returned check, to offset the cost of handling dishonored checks. The University will not accept a check from a student who knowingly or unknowingly has previously given two bad checks.

## 4. <br> ADMISSION



## Admission

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## Philosophy

Admissions requirements for undergraduate study at UTSA are designed to give admitted applicants an opportunity to demonstrate that they can perform collegelevel work. Each admission case is reviewed individually and exceptional circumstances should be discussed with an admissions counselor. UTSA will admit all applicants who are holders of bona fide University of Texas at San Antonio scholarships designated by the President of The University.

## Classifications and Requirements

The criteria for the various classifications of admission are set forth in the following section.

## First-Time Freshmen

First-time freshmen are students who have never attended a college or university prior to their application for admission to UTSA. Basic requirements for first-time freshmen depend on the length of time between their date of graduation (or GED) and the date of application. If applicants have graduated within 5 years of application, a minimum rank-in-class and SAT/ACT score is required. If applicants graduated over 5 years prior to application, admission is based upon graduation from an accredited high school.

All high school seniors who have their SAT/ACT test scores sent to UTSA will be provided admission information and, if applicable, a pre-printed application for admission. Where possible, a tentative admission decision will be made based on SAT/ACT scores.

## High School Graduates

## Applying within 5 Years of Graduation

In-State. This category covers applicants who have graduated from an accredited Texas high school within five years of the date of application to UTSA and who have never attended another college or university. An accredited high school is one that has been accredited by the Texas Education Agency or by an accrediting association approved by the Texas Education Agency. UTSA will also consider any student who graduates from a high school accredited by any of the regional accrediting associations similar to the Southern Association of Colleges and Schools.

The following table shows the minimum total scores required, based on high school rank-in-class, on either the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board or the American College Testing Program (ACT).

| High School <br> Rank-in-Class | Minimum Total <br> SAT Score | Minimum Total <br> ACT Score (Enhanced) |
| :---: | :---: | :---: |
| Top 10\% | No minimum required, <br> but scores must be <br> submitted | No minimum required, <br> but scores must be <br> submitted |
| Top 25\% (not in <br> top 10\%) | 700 | 18 |
| Second 25\% | 750 | 19 |
| Third 25\% | 800 | 21 |
| Fourth 25\% | 850 | 22 |
| GED Test | 850 | 22 |

Students scoring 22 on the ACT or 850 on the SAT, contingent upon high school graduation, will be admitted. Students scoring below 22 on the ACT or 850 on the SAT will need to meet the requirements for rank-in-class as shown in the above chart.

All applicants must complete a UTSA application, enclose a sixth- or seventhsemester high school transcript and the $\$ 20.00$ nonrefundable application fee, and send it to the Office of Admissions and Registrar. The application should be submitted early in the student's senior year.

Out-of-State. An applicant who applies from out-of-state must graduate from a high school accredited by that state's accreditation division. That division's mission and scope must be similar to that of the Texas Education Agency. UTSA will also consider the applications of students who graduate from a high school accredited by any of the regional accrediting associations similar to the Southern Association of Colleges and Schools.

Out-of-state applicants for admission who have graduated within five years of the date of first enrollment at UTSA and who have not attended another college or university must be in the top half of their graduating class. Minimum SAT or ACT scores must correspond to those required of in-state applicants in the first or second 25 percent of their class.

Applying more than 5 Years after Graduation. Both in-state and out-of-state applicants for admission whose graduation from high school was over five years prior to their application for admission and who have never attended another college or university are eligible for admission regardless of both high school rank-in-class and SAT or ACT scores. These applicants must submit a completed application, an official high school transcript, and nonrefundable application fee to the Office of Admissions and Registrar.

## GED Applicants

Persons who did not graduate from an accredited high school but who received a General Educational Development Test (GED) certificate may be eligible for admission to UTSA. Along with a completed application and nonrefundable appli-
cation fee, GED applicants must submit offical GED scores and SAT or ACT scores if applicable.

Applicants are required to have an average standard GED score of 45 or above on the five tests, with no score lower than 35 on any individual test. If the GED test was taken within 5 years of application, GED applicants must also furnish official SAT or ACT scores. A minimum composite score of 850 on the SAT or 22 on the ACT is required in order to be eligible for admission. Applicants who received their GED more than five years prior to application to UTSA are not required to submit SAT or ACT scores; admission for these students is based upon satisfactory GED scores as outlined above.

## Recommended Preparation

UTSA expects each applicant to be prepared for academic work at the university level. High school students who plan to apply to UTSA are strongly encouraged to prepare for university study by taking courses in language skills, quantification skills, and other subjects contributing to a broad academic background (English, foreign languages, speech, social sciences, history, mathematics, sciences, and the fine arts).

The suggested nature and number of high school units (a year of study in one subject at an accredited secondary school) follow:

| Subject | Units |
| :--- | :---: |
| English | 4 |
| Mathematics (algebra, geometry, trigonometry, <br> and advanced mathematics) | 3 or more |
| One foreign language | 2 or more |
| Natural science | 2 or more |
| Social science | 2 or more |
| Fine arts | 1 or more |

These specific units, although not required for admission, are recommended. Students who enroll in UTSA and who have prior knowledge in certain subjects may be able to earn credit toward graduation through the Credit by Examination program (outlined in the General Academic Regulations chapter of this catalog).

## Early Admission

Applicants for admission as first-time freshmen who are attending high school at the time of application and who meet the rank-in-class and SAT/ACT requirements during their senior year are admitted pending certification of high school graduation. Applicants for early admission who do not meet the requirements prior to graduation will be reconsidered for admission upon submission of final transcripts or new test scores.

## Provisional Admission

Applicants who are Texas residents, first-time freshmen, and graduates of any accredited high school, but who do not qualify for admission due to inadequate SAT/ACT scores or high school record, may be admitted to a Spring or Summer term on a provisional basis.

When admitted on a provisional basis, students are given an opportunity to demonstrate that they can perform college-level work and can reasonably be expected to make progress toward a degree. Applicants must demonstrate their ability to perform at the college level by obtaining an overall "C" average ( 2.0 on a 4.0 scale) in 12 semester hours of college-level work. Upon successful completion of 12 hours of work from approved courses, students are allowed to request degreeseeking status in a subsequent semester.

Enrollment Requirements. While students are expected to complete the 12 -hour requirement in their initial semester of enrollment at UTSA, the absolute minimum initial enrollment is 6 college-level semester hours. If initially enrolling in a Summer semester, the student must register for both Summer terms.

A student who enrolls for between 6 and 12 semester hours and does not earn a 2.0 grade-point average must earn at least a 1.5 grade-point average to continue as a provisional student the next term. After 12 hours are completed, the student must have attained a cumulative grade-point average of 2.0. Students not reaching a 2.0 grade-point average will be placed on academic dismissal. For reinstatement to be considered, a student must submit a transcript from other colleges or universities attended, showing at least 30 hours of course work with at least a 2.0 grade-point average.

If a student enrolls for over 12 hours in the initial semester, all grades will be calculated in the final grade-point average during the semester in which the 12th hour is completed.

Course Requirements. Once a student has been admitted under the Provisional Program, advisement is provided through the Tomás Rivera Center for Student Advising. Students in the program must take courses selected from English, mathematics, natural sciences, social sciences, humanities, and foreign languages.

Enrollment in EDP 1702, a two-hour study skills course, is recommended; however, EDP 1702 may not be counted toward the 12 -hour requirement.

Applicants must not have previously enrolled in credit courses in any other institution of higher education. However, prior enrollment in remedial courses is permissible. Neither prior remedial courses nor remedial courses taken at UTSA may be counted toward the 12 -hour requirement.

Until a student's provisional status is removed, courses in disciplines other than English, mathematics, natural sciences, social sciences, humanities, and foreign languages may not be taken. Students will be dropped from courses in any other disciplines.

## Transfer Students

Students should apply for admission as transfer students if they have previously completed any credit courses at the college level. Applicants may be currently
attending another accredited college or university at the time of their application to UTSA.

Applicants for admission as transfer students who are enrolled at another accredited college or university at the time of application and who have at least a " C " average on all college-level work attempted to date may be admitted pending receipt of final transcripts verifying the grade-point average and good standing. For applicants who are currently enrolled in another college or university and do not meet these requirements, determination of eligibility for admission may be deferred until all final transcripts are received.

## With less than $\mathbf{3 0}$ Hours Credit

Applicants for admission to UTSA who have earned less than 30 semester hours of credit from accredited colleges or universities must

1. Meet the same rank-in-class (or GED) and SAT/ACT requirements as firsttime freshmen;
2. Have at least a " C " average ( 2.0 on a 4.0 scale) in all college or university hours attempted;
3. Be in good standing at the last institution attended; and
4. Be eligible to return (e.g., free of suspension, dismissal, or enforced withdrawal) to all previous institutions attended.

## With $\mathbf{3 0}$ or more Hours Credit

Applicants for admission to UTSA who have earned 30 or more semester hours of credit from accredited colleges or universities must

1. Have at least a " C " average ( 2.0 on a 4.0 scale) in all college or university hours attempted;
2. Be in good standing at the last institution attended; and
3. Be eligible to return (e.g., free of suspension, dismissal, or enforced withdrawal) to all previous institutions attended.

## Declaration of Previous College Work Attempted

Students are not at liberty to disregard previous college work attempted. All students transferring to UTSA must list all colleges attended on their UTSA application for admission. Failure to do so will result in the rejection of the application, withdrawal of any offer of acceptance, cancellation of enrollment, permanent dismissal from UTSA, or other appropriate disciplinary action.

## 2+2 Program

This program is designed to help students attending certain community colleges to graduate from UTSA without losing credit in the transfer. Students must meet the general admission requirements set forth in this catalog, as well as any additional specific admission requirements of the various degree programs.

UTSA has established $2+2$ transfer programs with San Antonio College, Palo Alto College, St. Philips College, TSTC-Harlingen, Southwest Texas Junior College, Del Mar College, the Victoria College, Laredo Junior College, Bee County Community College, and Austin Community College.

Students completing the first two years of a recommended plan of study that appears in the $2+2$ brochures for one of the above colleges may complete the remaining years at UTSA and earn a bachelor's degree in their respective discipline from UTSA.

## Academic Fresh Start

Texas residents may apply for admission to UTSA under the Academic Fresh Start statute (Texas Education Code, § 51.929). Under this program, academic course credits or grades earned 10 or more years prior to the semester for which the student seeks enrollment are not considered for admissions purposes.

Applicants seeking admission under the Academic Fresh Start statute must inform the Office of Admissions and Registrar in writing of their intent. Students admitted under this program will not receive any course credit for courses taken 10 or more years prior to enrollment.

Students who plan to pursue graduate degrees should note that if their baccalaureate degree was earned under the Academic Fresh Start statute, only the grade-point average of the coursework which applied to the baccalaureate degree as stated under the Fresh Start restrictions will be evaluated. However, other standard evaluation criteria for graduate study apply.

## International Students

## Definition

All applications from persons holding non-permanent visas will be processed as International. This includes applications received from other countries as well as applications received from persons currently attending U.S. high schools, colleges, or universities.

## International Freshmen

All applicants for admission to UTSA as international first-time freshmen must

1. Have qualifications equivalent to those of students entering from an accredited secondary school in the U.S., as determined by the Office of Admissions and Registrar.
2. Have superior grades on work done in secondary school, as determined by the Office of Admissions and Registrar.
3. Submit scores from the Test of English as a Foreign Language (TOEFL). A minimum score of 500 on the TOEFL is required.

TOEFL scores may be waived for:
a) international students from countries where English is the primary language of instruction and the principal language spoken in the home; or
b) non-citizens of the U.S. graduating from U.S. high schools and satisfactorily completing a minimum of two years in English (classes in English as a Second Language do not count toward this waiver requirement).
4. All new international students must participate in UTSA's English Language Assessment Program prior to registration. Based on this assessment, students requiring additional instruction in English will be placed in English as a Second Language (ESL) course(s).
5. Students who have graduated from U.S. high schools must submit an SAT/ACT test score corresponding to rank-in-class requirements for in-state first-time freshmen applicants. SAT or ACT scores are strongly recommended from schools abroad.
6. Submit a statement guaranteeing the student's ability to pay all expenses while at UTSA. The statement may be sent from a parent, guardian, or sponsor when endorsed by a bank or other reliable institution, or from a U.S. citizen who will accept responsibility for the student's financial needs.
7. Have all application materials (application, $\$ 20.00$ nonrefundable application fee, and supporting credentials) on file in the Office of Admissions and Registrar by the admission deadlines:

Fall semester
Spring semester
Summer semester

June 1
October 15
March 1

## International Transfer Students

Transferring from Schools outside the United States. International transfer students who have attended a college or university in a country other than the United States must

1. Have qualifications equal to those required for transfer from a college or university in the United States.
2. Submit scores from the Test of English as a Foreign Language (TOEFL). A minimum score of 500 on the TOEFL is required.

TOEFL scores may be waived for:
a) international students from countries where English is the primary language of instruction and the principal language spoken in the home; or
b) non-citizens of the U.S. graduating from U.S. high schools and satisfactorily completing a minimum of two years in English (classes in English as a Second Language do not count toward this waiver requirement).
3. All new students must participate in UTSA's English Language Assessment Program prior to registration. Based on this assessment, students requiring additional instruction in English will be placed in English as a Second Language (ESL) course(s).
4. Students who have graduated from U.S. high schools must submit an SAT/ACT test score corresponding to rank-in-class requirements for in-state first-time freshmen applicants. SAT or ACT scores are strongly recommended for all other international students. [International transfer students who have successfully completed one year of full-time university study do not need to submit SAT/ACT scores.]
5. Submit a statement guaranteeing the student's ability to pay all expenses while at UTSA. The statement may be sent from a parent or guardian when endorsed by a bank or other reliable institution, or from a U.S. citizen who will accept responsibility for the student's financial needs.
6. Have all application materials (application, $\$ 20.00$ nonrefundable application fee, and supporting credentials) on file in the Office of Admissions and Registrar by the admission deadlines:

Fall semester
Spring semester
Summer semester

June 1
October 15
March 1

Transferring from Schools within the United States. International transfer students who have attended another college or university in the United States must

1. Have completed at least 30 semester hours of credit with a " $\mathrm{C}+$ " average ( 2.5 on a 4.0 scale) on all college work attempted.
2. Submit scores from the Test of English as a Foreign Language (TOEFL). A minimum score of 500 on the TOEFL is required.

TOEFL scores are not required for:
a) international students from countries where English is the primary language of instruction and the principal language spoken in the home; or
b) non-citizens of the U.S. graduating from U.S. high schools and satisfactorily completing a minimum of two years in English (classes in English as a Second Language do not count toward this waiver requirement); or
c) non-citizens of the U.S. graduating from United States colleges or universities with at least a bachelor's degree.
3. All new students must participate in UTSA's English Language Assessment Program prior to registration. Based on this assessment, students requiring additional instruction in English will be placed in English as a Second Language (ESL) course(s).
4. Submit a statement guaranteeing the student's ability to pay all expenses while at UTSA. The statement may be sent from a parent or guardian when endorsed by a bank or other reliable institution, or from a U.S. citizen who will accept responsibility for the student's financial needs.
5. Have all application materials (application, $\$ 20.00$ nonrefundable application fee, and supporting credentials) on file in the Office of Admissions and Registrar by the admission deadlines:

Fall semester
Spring semester
Summer semester

June 1
October 15
March 1

## Special Students

Special students are transfer students who enroll in courses at the undergraduate level only, without pursuing a degree at UTSA. First-time freshmen and
international students may not apply as special students. Because special students are not working toward a degree, they may be ineligible for financial assistance.

Applicants with less than 30 semester hours attempted at an accredited college or university must meet the same admission requirements as first-time freshmen, as well as have at least a " C " average ( 2.0 on a 4.0 scale) on all college-level coursework and be in good standing at the last institution attended.

Applicants who have attempted 30 or more semester hours must have at least a "C" average ( 2.0 on a 4.0 scale) on the last 30 semester hours attempted, as well as be in good standing at the last accredited college or university attended. Even though admission is based on the last 30 hours attempted, students must list all colleges and universities attended on the application for admission.

To verify that requirements of the Texas Academic Skills Program (TASP) have been fulfilled, all special students must provide transcripts showing satisfactorily completed courses prior to the Fall of 1989, even if the courses are not part of the last 30 semester hours attempted.

Special students may later be admitted as regular degree-seeking students by applying for admission and meeting the same admission requirements as listed for transfer students. Classification changes from "special undergraduate" to "degreeseeking" requested during any semester will not be effective until the following semester.

## High School Students

Selected high school seniors may be admitted under the High School Senior Program and enroll in UTSA courses while completing their high school studies. Applicants for this program must score above the average SAT/ACT scores (1000/25) required for admission from high school graduates. Students must be recommended for the program of study by their high school counselors, and must be approved for enrollment by the Dean(s) of the College(s) in which they anticipate taking courses.

## Application Dates

Students are urged to apply for admission as early as possible so that matters regarding admission can be resolved well in advance of the beginning of a term. Applications for admission are accepted as early as six months before the term in which the student wishes to enter UTSA. The latest that complete application materials (application, $\$ 20.00$ nonrefundable application fee, and all required supporting documents) will be accepted is

| Fall semester | July 1 |
| :--- | :--- |
| Spring semester | December 1 |
| Summer semester | May 1 |

Failure to meet these admission deadlines will defer admission until a subsequent term. Students who are admitted to UTSA at least six weeks prior to these deadlines will have the opportunity to use early touch-tone telephone registration.

## Admission Procedures

Each applicant for admission is responsible for ensuring that all required application materials (completed application form, $\$ 20.00$ nonrefundable application fee, test results, required transcripts, etc.) are on file in the Office of Admissions and Registrar by the admission deadlines. Admission is not granted until the applicant's file is complete. All documents submitted in support of an application become the property of UTSA and cannot be returned.

Students who apply for admission to UTSA for any term and do not register for courses must re-apply for admission if they wish to enroll at a later date. Any subsequent application for admission must be in accordance with current admission requirements. New transcripts, test scores, and other supporting documents are required, since files for admitted students who do not register for courses are not retained.

## Readmission

Former UTSA students who have not been in attendance for one or more long semesters (Fall or Spring) must file an application for readmission, along with a $\$ 20.00$ nonrefundable application fee, by the application deadline.

All former students returning to UTSA who have attended other institutions of higher education since they were last enrolled at UTSA must submit an official transcript from each institution. Eligibility for readmission for any former student depends on the student's academic status at the conclusion of the last UTSA semester of enrollment and performance on any subsequent college or university work attempted.

## Admission to Special Programs (in addition to UTSA Admission)

## University Honors Program

The University Honors Program is an interdisciplinary, four-year curriculum of special classes, supervised research, and ongoing faculty advisement, designed to provide superior students with the opportunity to obtain an education that challenges them to think, question, and excel. The program offers small classes with greater opportunities for student participation, increased student-faculty contact, greater individual attention, lively discussions of important issues, special interdisciplinary classes, and research opportunities. Honors students are also eligible for special scholarships, including Presidential Honors Scholarships, book awards, and the Lecture Patrons Scholarships.

Program participants choose from a unique selection of interdisciplinary seminars and Core Curriculum courses while fulfilling their major requirements. Students who fulfill all of the course requirements of the University Honors Program, including the completion of an Honors thesis, and who maintain a grade-point average of 3.25 or above, graduate with University Honors Program Honors. This special distinction appears on the student's transcript and is recognized at the Student Honors Convocation in the student's senior year.

Students wishing to apply for admission to the University Honors Program should contact the Director of Honors Programs. Applications are reviewed and honors students are selected by the Honors Faculty Advisory Committee. Selection is based on grades, standardized test scores, letters of recommendation, and a writing sample.

Students currently enrolled at UTSA are eligible for admission if they have a grade-point average of 3.5 or above. High school students are eligible for admission if they have a combined SAT score of 1100 or above, an ACT score of 28 or above, or if they expect to graduate in the top $10 \%$ of their high school class. Although students are admitted on a continuing basis, high school students must submit their applications by March 15 to be considered for Presidential Honors Scholarships.

## Honors Program for Young Scholars

The University of Texas at San Antonio Honors Program for Young Scholars is an opportunity for talented high school students to enroll in selected UTSA courses and earn university credit. The program, which is conducted during the first session of the Summer semester, is limited to students who have completed the tenth or eleventh grade by the date classes begin. Graduating high school seniors are not eligible for this program.

Participants are selected on the basis of their grades, standardized test scores, a writing sample, teacher recommendations, and in some cases, submission of materials that indicate potential for the program. Students pay tuition and fees as described in this catalog. Scholarships are available to students selected for the program and are awarded solely on the basis of financial need.

## Teacher Certification Programs

UTSA is approved by the Texas Education Agency to recommend students for teaching certificates in various baccalaureate degree areas. Students preparing for a provisional or professional teaching certificate or seeking certification endorsements should apply for admission to the certification program through the Office of Teacher Advising, Certification, and Placement in the Division of Education. Applicants may be either degree-seeking or special students.

Specific information regarding admission requirements to the Teacher Certification undergraduate, post-baccalaureate, and professional certification programs may be obtained in the Office of Teacher Advising, Certification, and Placement. Students are encouraged to seek advising as soon as they are admitted to UTSA regarding the Texas Academic Skills Program (TASP, required of all teacher candidates in the State of Texas), the semester hours required for admission, grade-point average requirements, and the appropriate sequence of study.

Undergraduates seeking elementary teacher certification must complete the Interdisciplinary Studies degree as outlined in this catalog. Individuals seeking secondary certification should complete the bachelor's degree requirements in their academic specialization while coordinating with the Office of Teacher Advising, Certification, and Placement to fulfill certification requirements. Students wishing to add additional teaching fields and endorsements to their provisional teaching certificate or graduate students seeking professional certification must also coordinate with the Office.

## 5. <br> GENERAL ACADEMIC REGULATIONS



## General Academic Regulations

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## Registration Requirements (New and Transfer Students)

Prior to registration, new students with fewer than 30 semester credit hours of college coursework are required to obtain advisement at the Tomás Rivera Center for Student Advising. Transfer students are required to obtain advisement at the Tomás Rivera Center prior to their initial registration for courses.

## Registration Procedures

## Registration for Classes

All students who attend classes at UTSA must be officially registered or approved as auditors. Registration instructions are included in the Schedule of Classes issued for each term. Questions regarding registration should be directed to the Office of Admissions and Registrar.

UTSA does not guarantee the availability of particular courses or sections, and admission to classes is permitted only until the maximum number of students allowable in any section has been reached. UTSA reserves the right to cancel any course or section in which the number of registrants does not warrant its continuation.

## Texas Academic Skills Program (TASP) Examination

The Texas State Education Code requires that all students (with certain exceptions; see below) who enter public institutions of higher education in the Fall of 1989 and thereafter must be tested for reading, writing, and mathematics skills. This includes all full-time and part-time freshmen enrolled in a certificate or degree program, any non-degree-seeking students prior to the accumulation of 9 or more college semester credit hours or the equivalent, and any transfer students who have not previously taken the test. There is a TASP test fee which will be paid by the student.

Performance on the test is not a condition of admission. However, a student may not enroll in any upper-division course, the completion of which would give the student 60 or more semester credit hours or the equivalent, until the student's test results meet or exceed the minimum standards in all test sections. Other assessment procedures may be used in exceptional cases to allow a student to enroll in upperdivision courses in cases where student test results do not meet minimum standards (Texas Education Code, § 51.306).

Most freshman students and transfer students who have not sent TASP results to the Office of Admissions and Registrar prior to the application deadline will have a registration hold which will prevent them from registering. It is imperative that students respond early to this requirement in order to obtain the best possible schedule.

For additional information, consult the UTSA Schedule of Classes, contact the Tomás Rivera Center or the Testing Center.

## Exemptions from the TASP Examination

Students who are Deaf and/or Blind. Until September 1, 1995, students who are deaf and/or blind do not have to take the TASP test or participate in remedial
activities due to failing portions of the test. After September 1, 1995, separate requirements for such students will take effect.

Assessment Achievement Exemption. Students who perform at or above a specified level on the American College Test (ACT), Scholastic Assessment Test (SAT), or Texas Assessment of Academic Skills (TAAS) will be exempt from the TASP examination. The required levels are as follows:

| Test | Minimum scores required |  |
| :---: | :---: | :---: |
| ACT | Composite score of 29, with: |  |
|  | Individual English score | 27 |
|  | Individual math score | 27 |
| SAT | Composite score of 1200, with: |  |
|  | Verbal score | 550 |
|  | Math score | 550 |
| TAAS* | Reading | Scale score of 1800 |
|  | Writing | Scale score of 1800 |
|  | Math | Scale score of 1800 |

*TAAS scores may not be more than three years old.

## Late Registration

Late registration permits students who have been admitted to UTSA to register for classes during an allotted time indicated in the Schedule of Classes issued each term. Instructions for late registration are available at the Office of Admissions and Registrar. Students are not permitted to register after the close of the late registration period.

Students who register late are charged an additional $\$ 5.00$ the first day of late registration, and an additional $\$ 2.50$ per day thereafter, to a maximum of $\$ 15.00$ for any one term. This fee is nonrefundable.

Students who register late are responsible for completing any work missed in the courses for which they enrolled during the time the course was in session prior to their being registered. In addition, since many courses will have been closed at capacity, late registrants may need to select their courses from a reduced schedule.

## Adding Courses

Students who are registered for courses may add courses to their schedules for a limited time at the beginning of the semester. In Spring or Fall semesters, courses may be added in the first week of classes. In Summer semesters, classes may be added in the first two days of the term. Adding a course requires the approval of
the course instructor, the student's advisor, and the Director of the Division which offers the course.

After the Census Date in any semester, students may not add courses except in extremely rare and extenuating circumstances as approved by the Dean. The Census Date for Spring or Fall semesters is the twelfth class day; for the Summer, the fourth class day. The University Calendar indicates the deadline dates for adding courses.

There is a processing fee for adding courses. The fee will only be charged from the first through the twelfth class days during Fall or Spring semesters and from the first through the fourth class day during Summer semesters. Please see the Schedule of Classes for information on the amount of the fee and the procedure for adding courses.

Undergraduates seeking to register for or to add a graduate course in any of these time periods must obtain the special approvals specified in the section "Enrollment in Graduate Courses" in the Bachelor's Degree Regulations chapter of this catalog.

## Dropping Courses

Students may drop courses from their schedules for a limited time each semester. In Spring or Fall semesters, courses may be dropped through the first nine weeks of the semester. In five-week Summer terms, courses may be dropped through the first three weeks of the semester. In ten-week Summer terms, courses may be dropped through the first six weeks of the semester.

Courses officially dropped prior to the Census Date do not appear on a student's transcript. The Census date for Spring or Fall semesters is the twelfth class day; for the Summer, the fourth class day. There is a processing fee for dropping courses prior to the Census Date.

Students who drop courses between the Census Date and the Automatic "W" date will have a record of the courses on their transcripts with an automatic grade of "W." The Automatic "W" date is last day of the ninth week of Spring or Fall semesters, or of the third week of a five-week Summer session, or of the sixth week of a ten-week Summer session. The change becomes official after it is processed by the Office of Admissions and Registrar. Students dropping courses after the Census Date will not be charged the processing fee.

Students may not elect to drop an individual course after the Automatic "W" date. The University Calendar indicates the deadline dates for students to drop courses each term.

Students withdrawing from The University, no matter what date this action occurs, will not be charged for this transaction.

## Administrative Drops

Administrative drops are not student options. Instructors may drop a student for non-attendance during the regular drop period (through the first nine weeks of Spring or Fall semesters, the first three weeks of a five-week Summer term, or the first six weeks of a ten-week Summer term). The student will receive a grade of "W."

After the official drop period, an instructor may recommend to the Dean that a student be dropped from class when the instructor can show that unusual circumstances exist to warrant such action. If the Dean grants the drop, the student will receive a grade of " $W$ " (if passing at the time of the drop) or a grade of " $F$ " (if failing at the time of the drop).

## Auditing Courses

UTSA students and non-students who wish to audit a course may do so with the approval of the instructor and the Director of the Division in which the course is offered, providing there is a space in the classroom after all registered students have been accommodated. A course must achieve its minimum size without auditors.

Auditing entitles a student to listen and observe. Participation of an auditor in class is at the discretion of the instructor. No UTSA credit is granted for courses that are audited; no official record is made of enrollment in classes on an audit basis. Due to the format of studio/laboratory use, auditors will not be approved for ART courses. Students not enrolled in courses at The University are not allowed to audit courses which require the use of the University computing system.

All auditors must submit a Request for Audit form to the Office of Admissions and Registrar. A UTSA student pays an auditing fee of $\$ 25.00$ per course; auditors who are not registered UTSA students must pay an auditing fee of $\$ 50.00$ per course. Persons over 65 are permitted to audit without paying an auditing fee if space is available.

Permission to audit must be obtained and fees paid beginning the first day of class through the Census Date. Students who register for a course, and later want to change that course to an audit, must officially drop that course prior to submitting a Request for Audit form.

Non-student auditors who wish library privileges may receive them by filling out a Friends of the UTSA Library application at the Circulation Desk in the UTSA Library and paying a nonrefundable fee. There are limits on the services offered to the Friends of the UTSA Library cardholders; further details are available from the Circulation Desk.

## Cancellation of Enrollment

Students who fail to fulfill admission, registration, or financial requirements or who otherwise fail to adhere to academic regulations may have their enrollment for the term canceled. Students may apply for readmission to a subsequent term, provided they have resolved the cause of the cancellation.

## Withdrawal from The University

Students who find it necessary to withdraw from UTSA (drop all courses for which they are enrolled) must go through the Tomás Rivera Center for Student Advising prior to the withdrawal. The student must then file a Withdrawal form with the Office of Admissions and Registrar in order to withdraw officially.

Students may not withdraw from UTSA later than the first day of the week preceding final examinations. Students who officially withdraw from UTSA during the regular drop period (through the first nine weeks of Spring or Fall semesters, the first three weeks of a five-week Summer term, or the first six weeks of a ten-
week Summer term) will receive a grade of "W" in all classes. Students who officially withdraw after the regular drop period will receive a grade of "W" for each class they were passing at the time of withdrawal and a grade of " $F$ " for each class in which they were not passing.

Students who withdraw from all classes are subject to UTSA's academic probation and dismissal regulations. Students withdrawing should refer to the regulations on refunds of tuition and fees.

## Records and Classification of Students

## Classification Terms

UTSA students are classified according to the following table:

| Classification Terms |  | Number of semester credit |
| :---: | :---: | :---: |
| Upperdivision | Senior | 90 or more |
|  | Junior | 60 to 89 |
| Lowerdivision | Sophomore | 30 to 59 |
|  | Freshman | 0 to 29 |

## Definition of Full-time Undergraduate

A full-time undergraduate student is one enrolled in twelve or more semester hours of credit during a Fall, Spring, or entire Summer term.

## Verification of Enrollment

Currently enrolled students with outstanding student loans should have a verification of enrollment sent to their lending agencies each semester. Currently enrolled students who are receiving grants or scholarships should check if their providers require a verification of enrollment each semester.

Students should make requests for verification in writing to the Office of Admissions and Registrar. All verifications are prepared and mailed after the Census Date (the twelfth class day of Fall or Spring semesters and the fourth class day of a Summer semester).

## Transcripts

Official transcripts of all course work taken at UTSA are available in the Office of Admissions and Registrar. Requests for transcripts must be in writing and bear the signature of the student whose record is requested. A fee is charged for each copy of the transcript and must be paid in advance.

Transcripts from other institutions submitted to UTSA become the property of The University and are not reproduced and/or mailed to other institutions, agencies, or individuals as an official transcript.

Documents submitted by students whose last attendance at UTSA was prior to Summer 1987 are no longer available for duplication.

Official transcripts will not be issued for students who have a financial obligation or other commitment outstanding to The University until the obligation is cleared.

## Release of Academic Records

All official certifications with regard to the academic performance or status of a student or former student of UTSA are made by the Office of Admissions and Registrar.

UTSA transcripts and other information from a student's academic records are released by the Office of Admissions and Registrar only upon written request from the student or other person authorized by law under the Family Educational Rights and Privacy Act of 1974 and when payment of the appropriate fee is made. Exceptions may be made in response to a subpoena or court order, under other circumstances as allowed under the Family Educational Rights and Privacy Act of 1974, or as provided in the policy on releasing directory information set forth in the About UTSA chapter of this catalog.

## Change of Major, Degree, or Classification

Students who wish to change their majors, degree objectives, or classifications must obtain the required forms at the Office of Admission and Registrar. The change is not official until the form has been completed and filed with the Office of Admissions and Registrar and the student is admitted to the new degree program, certification program, or classification. Classification changes ("special undergraduate" to "degree-seeking") requested during any semester will not be effective until the following semester.

The Architecture and Engineering programs, as well as the College of Business, have specific requirements for admission. Students seeking to enter these programs should consult their program directors.

## Change of Name

A student's name on official records at UTSA is the name under which the student applied for admission, unless a Change of Name form has been processed through the Office of Admissions and Registrar. The official University transcript will carry the current name and the most immediate previous name, if any. Change of Name forms should be supported by appropriate legal documentation, except that upon marriage the student may declare the newly taken name.

## Change of Address

Currently enrolled students who have changed their addresses MUST notify the Office of Admissions and Registrar on the appropriate form. Official notification of change of address is necessary for proper identification of students' records and for accurate mailing of correspondence, grade reports, transcripts, registration instructions, and information pertaining to graduation requirements. Students who
have a degree application on file in the Office of Admissions and Registrar should specify if the address change also affects the address to which the diploma is to be mailed.

## Courses

## Course Numbering System

All courses are designated by four-digit numbers following a two- or three-letter abbreviation of the subject the course is in. The first digit indicates the level of the course. Courses beginning with " 0 " are remedial and may not be counted toward a degree. Courses beginning with " 1 " or " 2 " are lower-division (freshman and sophomore level). Courses beginning with " 3 " or " 4 " are upper-division (junior and senior level). Courses beginning with a " 5 " or higher are graduate-level courses.

The second and third digits in the course numbers are used within the Colleges by each Division to distinguish individual courses. The fourth digit indicates the semester hour value of each course.

The number of lecture and laboratory hours per week are provided in parentheses in the course description sections immediately following the course number and title. For example, (3-0) indicates three hours of lecture and zero hours of laboratory per week.

## Common Course Numbering

UTSA is a participant in the Texas Common Course Numbering (TCCN) System. This system aids in the transfer of lower-division academic courses among colleges and universities in Texas. Common courses are identified by a common TCCN designation, composed of a discipline identifier and a course number. Equivalent TCCN designations are listed with all relevant UTSA courses in the course listings sections of this catalog.

## Remedial Courses

Students who have not been exempted from the Texas Academic Skills Program (TASP) test, and who have not passed all parts of the test, must be enrolled in at least one remedial course (or an approved alternate remedial activity) each semester or Summer term of enrollment until they pass all parts of the test. Remedial courses cannot be used as degree credit. All remedial courses are graded on a credit/nocredit basis and will not be included in the student's grade-point average. Students may not drop a remedial course. Class attendance in these courses is mandatory.

## Prerequisites

Prerequisites are stated for many courses listed in this catalog. Prerequisites advise students of the background expected of all students in the course. It is the student's responsibility to be sure all prerequisites are met before enrolling in any course. When a student has not met the specific prerequisites listed, he/she may, under special conditions, obtain permission to register from the instructor of the course.

## Extension Courses

UTSA offers a limited number of extension courses. Some of these courses are offered for academic credit, but admittance is usually restricted. For information, students should contact the office of the Director of Extended Education.

## Correspondence Courses

UTSA does not offer correspondence courses at this time. For UTSA policies on transfer and credit limitations on such courses, see the Transfer of Credit and Minimum UTSA Residence Requirements sections in the Bachelor's Degree Regulations chapter of this catalog.

## Grades

## Explanation of Credit, Grading System, and Symbols

Hours Attempted. The number of hours attempted is the total number of hours for which a student has enrolled and received grades of "A," "B," "C," D," or "F," except as provided for repeated courses.

Hours Earned. The hours earned by a student are the number of semester hours of credit earned in which grades of "A," "B," "C," "D," or "CR" have been received.

Grade-Point Average. The UTSA grade-point average (GPA) is determined by dividing the number of grade points earned at UTSA by the number of semester hours attempted at UTSA. Credits and grades for work completed at other institutions or credits earned by examination are not included in the UTSA gradepoint average. They are included in the student's overall grade-point average.

The following table explains UTSA grade symbols:

$\left.$| Grade <br> Symbol | Grade <br> Points | Meaning of Grade Symbol |
| :---: | :---: | :--- |
| A | 4 | Outstanding |
| B | 3 | Above average |
| C | 2 | Average |
| D | 1 | Below average but passing (see credit/no-credit <br> grading policy) |
| F | 0 | Failure |\(\left|\begin{array}{l}"Credit." Indicates successful credit by examina- <br>

tion or credit received under the credit/no-credit <br>

option.\end{array}\right|\)| "No Credit." Indicates unsuccessful credit by ex- |
| :--- |
| CR |
| amination or no credit received under the credit/no |
| credit option. | \right\rvert\, | NC |
| :--- |
| 0 |


| W | 0 | "Withdrawal." Indicates that the student was pass- <br> ing at the time of withdrawal. |
| :---: | :---: | :--- |
| IN | 0 | "Incomplete." Assigned at the discretion of the <br> instructor; see details below. |
| NR | 0 | "No Report." Assigned only by the Registrar, when <br> unusual circumstances do not allow a student's <br> grade to be entered by the deadline for processing <br> grades. It is replaced with the official grade as soon <br> as possible. |
| EP | 0 | "Postponement of Final Examination." Indicates <br> that a student has been allowed to postpone a final <br> exam. Procedures for such postponement are cov- <br> ered in this catalog. |
| EX | 0 | "Expelled." |

Incomplete. The grade "IN" is given by an instructor to indicate that some part of the work of a student in a course has, for good reason, not been completed, while the rest of the student's work in the course was satisfactorily completed. The "Incomplete" allows a student to complete the course without repeating it. "Incomplete" may not be assigned when a definite grade can be given for the work done. The student must have been in attendance at least three-fourths of the term.

Whenever a grade of "Incomplete" is assigned, the instructor is required to file a "Requirements for Removal of Incomplete" report with the Office of Admissions and Registrar.

Incomplete work must be made up no later than the end of the final examination period one year from the semester the incomplete was received, and before the student's graduation. If the work is not completed 101 hin this time, the "IN" changes to a grade of " F " or " NC ."

## IN NO INSTANCE WILL GRADES BE CHANGED AFTER ONE CALENDAR YEAR.

## Repeating Courses

Certain courses in the catalog state in their course description "may be repeated for credit." These are the only courses where repeating is not a duplication. All credit hours and grade points from every instance of taking these courses count in the student's record.

Students may repeat any course in which they received a grade of "D," "F," or "NC" in order to improve their grade. However, credit can be counted for only one of the courses. The highest grade earned is used in calculating the student's overall grade-point average. Receipt of a higher grade in a subsequent semester will not alter the student's academic standing in the semester where the original grades were earned.

If a student re-enrolls in a course in which a " $D$ " was received and earns a higher grade, the credit hours from the original "D" are canceled from the student's UTSA
grade-point average. However, if the student earns another " $D$ " or a lower grade, then the repeated course grade is not used in computing the cumulative UTSA grade-point average, and the course is marked as "Duplication" on the student's official record.

If a student re-enrolls in a course in which an " $F$ " has been received and earns a higher grade, the credit hours which the original " $F$ " charged against the student's UTSA grade-point average are canceled. However, if a second " $F$ " is received, the repeated course grade is not used in computing the student's UTSA grade-point average, and the course is marked as "Duplication" on the student's official record.

Students may not repeat a course by correspondence, extension, or through work at another college or university for the purpose of raising their grade-point averages at UTSA once the course has already been completed at UTSA. Likewise, once a course has been completed through correspondence, extension, or work at another college or university, it may not be repeated at UTSA for the purpose of raising a student's cumulative grade-point average.

## Credit by Examination

A student at UTSA may, through satisfactory performance on an examination, show a knowledge of the content of an undergraduate course and be awarded credit by examination for that course.

Credit earned in this way does not satisfy minimum UTSA residence requirements (except for credits earned by challenging UTSA courses; see section on challenging courses). Credit by examination is not included in the calculation of the student's UTSA grade-point average. The symbol "CR" (Credit) is awarded for all credit earned by examination. Unsuccessful attempts to earn credit by examination do not become part of the student's official academic record.

Credit by examination may be used satisfy Core Curriculum and specific degree requirements, with two exceptions. Only three hours of credit by examination may be applied to each of the Core Curriculum requirements in U.S. History/Diversity and Political Studies.

Credit by examination cannot duplicate or repeat credit already earned for college or university courses. Students may not receive credit for a course for which credit by examination has already been awarded. It is not necessary to be a UTSA student to take credit by examination. Credit based on CEEB examinations, however, is not awarded until the individual is registered at UTSA.

A brochure on Credit by Examination at UTSA is available from the Testing Center. It describes the various tests which may be accepted for credit at The University: the types of test available, when and where they are given, their costs, procedures for having test scores submitted for consideration for credit, the amount of credit that may be earned, and how to obtain additional information on each test.

## Challenging a UTSA Course

Students enrolled at UTSA may "challenge," or request an examination in, any UTSA undergraduate course for which they have not already received credit. Not all courses, however, consist of materials in which comprehension can be evaluated by means of examination. The option of whether or not to grant the request rests with the instructor of the course.

Credits earned by challenging UTSA undergraduate courses by examination apply to degree requirements as though the courses had been completed in the normal manner, except that since a grade of "CR" is awarded, such courses are not included in the UTSA grade-point average. These credits are also counted toward the minimum UTSA residence requirements. Students may challenge the same UTSA course only once.

To challenge a UTSA undergraduate course, the student must enroll in the course and request the challenge examination from the instructor. A Request for Challenge Examination form must be filed with the Office of Admissions and Registrar and the test administered within the first three weeks of a Fall or Spring semester and the first week of a Summer semester. A charge of $\$ 15.00$ is made for each course challenged.

If the student's performance on the examination is at the grade level of "C" or higher, a grade of "CR" (Credit) is submitted at the end of the term by the instructor on the grade report for the course along with a credit by examination notation. Unsuccessful attempts to earn credit by challenge examination do not become part of the student's official academic record.

Students who fail the challenge examination must either drop the course or complete the course on a regular basis following the evaluation of the examination for the course challenged. Requesting credit by examination puts the class on a credit/no-credit grading option for the student. Therefore, if a student elects to complete the course, the Office of Admissions and Registrar must be notified to remove the credit/no-credit grading option.

Students admitted under the Provisional Admission Program may request to challenge courses by examination in those disciplines to which their enrollment is restricted. However, credit earned by examination does not fulfill the minimum of twelve college-level semester hours which must be successfully completed under the Provisional Admission Program.

## Credit/No-Credit Option

The credit/no-credit grading option is provided to encourage undergraduate students to expand their knowledge of fields outside their major area of interest. The following guidelines apply:

1. A maximum of four courses may be attempted on a credit/no-credit basis.
2. Credit/no-credit courses appear on the permanent record with a grade of "CR" if the student's grade is an " A ," "B," or " C ," or as a grade of " NC " if the student's grade is "D" or "F." Neither grade will affect the student's gradepoint average at UTSA. The credit/no-credit grade cannot be changed to a regular grade once the credit has been awarded.
3. Students must choose to take the course on a credit/no-credit basis at registration and must complete a Credit/No-Credit Option Request form. After the time limits for adding courses have passed, students will not be allowed to (1) request the credit/no-credit option or (2) remove the option and take the course on a regular basis.
4. Only free electives may be taken on a credit/no-credit basis. Courses to be applied to the Core Curriculum or to major or support work must be taken on a regular basis.
5. Transfer students who transfer to UTSA for their last 30 hours may not count credit/no-credit courses toward their 30 -hour minimum UTSA residency requirement.
6. The Office of Admissions and Registrar requires students to affirm by signature that they are aware of the policies on credit/no-credit and agree to abide by them. If it is later discovered that the affirmative was incorrect, the credit/no-credit grade will be returned to its original letter grade.

NOTE: Some graduate schools place students who have taken courses on a credit/no-credit basis at a disadvantage in computing grade-point averages for admission.

Mandatory Credit/No-Credit Courses. Some academic divisions will require certain courses to be graded on a mandatory credit/no-credit basis. Enrollment in any of these courses does not count toward a student's credit/no-credit limit of four free electives. Courses offered on a mandatory credit/no-credit basis are so designated in this catalog.

## Administrative Procedures

## Reporting of Grades by Faculty

Grades are reported by course instructors every term and are due in the Office of Admissions and Registrar 48 hours following the final examination. Final grades cannot be withheld, nor can reporting of them be deferred. Absence from a final examination should be reported as "EP," if a postponed examination has been authorized in accordance with the postponement of final examination procedures set forth in this catalog.

## Grade Reports

The Office of Admissions and Registrar mails final grades as soon as they are compiled after the close of each semester and each Summer term. The grade report reflects the grade that appears on the instructor's final grade sheet; subsequent changes are not included. Grades are mailed to the address on file in the Office of Admissions and Registrar. Only one grade report is mailed; additional copies are not available. Grade reports may be withheld for any student who owes tuition and fees to The University.

## Change of Grades

Grade changes from "IN" (Incomplete) to a letter grade must be made no later than the end of the final exam period, one year from the semester the incomplete was received, and before the student's graduation. The instructor must file a Removal of Incomplete form and file it with the Office of Admissions and Registrar within that time limit.

Grade changes from "EP" (Postponement of Final Examination) to a letter grade should be made within 30 days after the student has taken the authorized postponed final examination. The instructor may change the "EP" to a letter grade by com-
pleting a Change of Grade form and filing it with the Office of Admissions and Registrar. If a postponed final examination is not taken before the end of the Fall or Spring term following the one for which it was approved, the grade in the course will be changed to an "F."

Any other change of grade must be initiated by the instructor on the required form available in the Office of Admissions and Registrar and the Offices of the Deans. All requests for a change of grade should be accompanied by a statement explaining the requested change. It is the policy to change a grade (other than incomplete) only in the case of error. Additional work performed by a student may not be used to raise a grade that has been reported to the Office of Admissions and Registrar. Requests for change of grade require the approval of the Dean and Director of the Division in which the course is offered before the Registrar will make the change in the student's record.

## IN NO INSTANCE WILL GRADES BE CHANGED AFTER ONE CALENDAR YEAR.

## Class Participation Policy

Students are expected to regularly attend and participate in all meetings of courses for which they are registered. The instructor is responsible for communicating the participation requirements for each course to students. Subject to UTSA policies on class absences related to observance of the religious holy days, the instructor determines classroom participation requirements and policies on making up work missed during an absence.

Students who expect to be absent from class for observance of a holy day must notify the instructor of the course(s) no later than the fifteenth day of classes. The notification must be in writing and must be delivered by the student either (a) personally to the instructor of each class, or (b) by certified mail, return receipt requested, addressed to the instructor of each class. A religious holy day is a day observed by a religion whose places of worship are exempt from property taxation under §§ 11, 20, Tax Code. Instructors shall allow a student who is absent from classes for the observance of a religious holy day to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence.

When, in the judgement of the instructor, a student has been absent excessively, the instructor should report the absences to the Dean of the College in which the course is offered and recommend dropping the student from the course with a grade of "W" or "F." If the Dean approves the recommendation, it will be reported to the Registrar's Office, which advises the instructor and student of the action taken.

Students who enroll for a course and then do not attend will be considered absent from class until they officially drop the course or until they accumulate an excessive number of absences and are dropped from the class with a grade of "F."

## Grade Grievance Procedure

In resolving any student grievance regarding grades or evaluations, the student must first make a serious effort to resolve the matter with the faculty member with whom the grievance originated. Individual faculty members retain primary responsibility for assigning grades and evaluations. The faculty member's judgement is final
unless compelling evidence shows discrimination, differential treatment, or factual mistake. If evidence warrants appeal, then normal academic channels are: Division Director, Dean, Provost and Vice President for Academic Affairs, and President.

Grade appeals above the level of Dean must be submitted in writing on the Student Academic Grievance Form for Appeal of a Grade, available in the Offices of Division Directors.

## IN NO INSTANCE WILL GRADES BE CHANGED AFTER ONE CALENDAR YEAR.

## Postponement of Final Examinations

A student who is compelled to be absent from a final examination because of illness or other imperative reason should petition his/her academic Dean for permission to postpone the examination. This request requires prior approval by the instructor and should be made to the Dean as soon as the student knows he/she will be compelled to be absent.

The instructor records the symbol "EP" on the final grade report for a student who has been permitted to postpone an examination.

The examination should be given as soon as possible (preferably during the same examination period), but not later than 30 days after the original examination period. If for good reason the student cannot take the examination within the $30-$ day period, the examination may be scheduled at any time convenient to the instructor, except that in no case will it be given later than the Fall or Spring term following the one for which the postponement was approved. If a postponed examination is not taken before the end of the next Fall or Spring term, the grade in the course is changed to "F."

## Honor Roll and Dean's List

Full-time Student Honor Roll: Undergraduate students who achieve scholastic distinction in a semester, as evidenced by a grade-point average of 3.5 or higher in at least 12 semester hours of credit, excluding grades of "CR," and who receive no grades of "D," "F," "EP," "IN," or "NC."

Part-time Student Honor Roll: Undergraduate students who enroll in 6 to 11 credit hours in a semester and maintain a grade-point average of 3.5 or higher, excluding grades of "CR," and who receive no grades of "D," "F," "EP," "IN," or "NC."

Full-time Student Dean's List: Undergraduate students who complete at least 12 semester hours and who achieve a grade-point average of 3.75 or higher for a semester.

Part-time Student Dean's List: Undergraduate students who complete at least 6 to 11 semester hours and who achieve a grade-point average of 3.75 or higher for a semester.

Neither the Honor Roll nor the Dean's List are prepared for the Summer terms. To determine eligibility for graduation with honors, see Graduation with Honors in the Bachelor's Degree Regulations chapter of this catalog.

## Academic Standing

## Minimum Grade Requirements

Students are expected to maintain a level of scholastic achievement that would allow them to meet the grade requirements for graduation. Students who fail to maintain the minimum required grade-point average of 2.0 in all work attempted at UTSA will be placed on academic probation or on academic dismissal as appropriate.

## Academic Probation

Students whose cumulative UTSA grade-point average falls below 2.0 are placed on academic probation. Academic probation will be cleared when a student achieves a 2.0 cumulative grade-point average.

Students placed on academic probation must make a term grade-point average of 2.0 or above in each semester of probation in order to remain enrolled. Students on academic probation whose term grade-point average is below 2.0 will be placed on academic dismissal.

Students cannot graduate while on academic probation.

## Academic Dismissal

Students on academic probation who achieve a grade-point average below 2.0 during any term will be placed on academic dismissal. Students placed on academic dismissal must petition for reinstatement or readmission for future enrollment.

## Petition for Reinstatement

All students who have been reinstated from an academic dismissal are reinstated on academic probation and must meet academic probation grade-point requirements.

First Academic Dismissal. Students placed on academic dismissal for the first time may be reinstated after not attending UTSA for one regular semester (Fall or Spring). Students seeking reinstatement must file an application for admission along with a $\$ 20.00$ nonrefundable application fee by the appropriate deadline. Students on academic dismissal from UTSA may not attend other institutions for the purpose of raising their UTSA grade-point averages.

However, a student who is dismissed for the first time at the end of the Spring semester may attend the UTSA first five-week Summer session in an attempt to raise his or her grade-point average to a level which would permit reinstatement in the Fall semester. To do this, the student must complete the Registration Request Form for Dismissed Students available in the Office of Admissions and Registrar, prior to the beginning of summer classes.

Reinstated students must consult with the academic advisors prior to registration.
Subsequent Academic Dismissals. Students placed on academic dismissal for a second or subsequent time may be reinstated after not attending UTSA for one calendar year. After this year, students may petition for reinstatement to the Dean of the College in which they are majoring or intend to major. Undeclared majors
petition the University Committee on Probation and Reinstatement. Petition forms may be obtained at the Dean's Offices or the Office of Admissions and Registrar.

Petition Procedures. Petition for Reinstatement forms must be filed by the following deadlines:

October $15 \quad$ Spring semester
March 15 Summer sessions
June 15
Fall semester
If the petition for reinstatement is disapproved, a student may not file another petition until the following semester. Appeal of a denial for reinstatement may be made to the Office of the Provost and Vice President for Academic Affairs within two weeks after notice of the denial is mailed by the Office of Admissions and Registrar. The decision of the Office of the Provost and Vice President for Academic Affairs is final.

## Scholastic Dishonesty

The integrity of a university degree depends on the integrity of the work done for that degree by each student. The University expects a student to maintain a high standard of individual honor in all scholastic work (Regents' Rules and Regulations, Chapter VI, 3.(17)).
"Scholastic dishonesty" includes, but is not limited to

- Cheating on a test or other class work;
- Plagiarism (the appropriation of another's work and the unauthorized incorporation of that work in one's own written work offered for credit); and
- Collusion (the unauthorized collaboration with another person in preparing college work offered for credit).

Should a student be accused of academic dishonesty, the faculty member may initiate disciplinary proceedings through the Division Director, the Dean of the College, and the University Discipline Officer.

## Immunizations

All incoming students are required to have current immunizations for TD (tetanusdiphtheria) and MMR (measles, mumps, and rubella). Written proof of immunity must be presented during the first semester of enrollment. Students unable to present such proof may receive immunizations at Student Health Services. For international students, a tuberculosis (T.B.) skin test within six weeks of admission is required. Any student with positive results of the T.B. skin test must have proof of appropriate follow-up and treatment. All students are encouraged to receive the complete series of Hepatitis B vaccine.

## 6. <br> BACHELOR'S DEGREE REGULATIONS


Bachelor's Degree Regulations
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## 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 hours of credit, of which at least 39 must be in upper-division work.
2. Complete the University Core Curriculum requirement (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 hours of credit accepted by UTSA in transfer or awarded by UTSA which, for degree purposes, are not applied to Core Curriculum, major, or support work requirements. The only restrictions placed upon courses used as free electives are
a. that a specific number of free elective credits must be at the upperdivision level for some degree programs;
b. that a maximum of six hours of physical activities courses can be applied to the free electives allowed for any UTSA degree program; and
c. that a maximum of nine hours of military science credit can be applied to the free electives allowed for any UTSA degree program.
4. Meet the minimum UTSA residence requirements.
5. Achieve an overall 2.0 grade-point average in all work attempted at UTSA, a 2.0 grade-point average in all work included in the major, and a cumulative 2.0 grade-point average (including all transfer work).
6. Be in good academic standing at UTSA.
7. Apply formally for the degree before the deadline in the Office of Admissions and Registrar and pay the required fee.

## Minimum UTSA Residence Requirement

The following minimum residence requirements at UTSA 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 30 semester credit hours of UTSA courses must be completed before a degree can be conferred.
2. Twenty-four of the last 30 semester hours must be completed in residence, with the exception that among The 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 hours required in all degree programs at UTSA, 18 of these must be earned in UTSA courses.
4. At least six 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/she takes courses that meet requirements common to all undergraduates at UTSA. All candidates for a bachelor's degree at UTSA must achieve Core objectives by completing the Core Curriculum. Most students will accomplish the Core objectives by fulfilling the requirements that follow. Students majoring in Art, Architecture, Interdisciplinary Studies, Interior Design, Music, Civil Engineering, Electrical Engineering, and Mechanical Engineering will accomplish Core objectives in a manner specified in their degree plans.

The actual numbers of courses that students will take to meet Core Curriculum requirements will vary, depending on prior preparation and choices made among courses. It is expected that most students will fulfill the Core Curriculum requirements by completing 54-55 semester credit hours of coursework.

## Goals

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 that are 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 each of the following: natural science and mathematics; behavioral, cultural, and social science; and language, 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 to 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 of 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 key courses in the Core, especially in the areas of rhetoric, mathematics, and language. Students who are unable to demonstrate proficiency through required UTSA placement examinations taken upon entry into The University, through coursework in secondary school, or through college transcripts may be required to take additional coursework before qualifying to take courses that meet Core

Curriculum requirements. Entering students are also expected to demonstrate proficiency in reading, knowledge of research and library tools, and acquaintance with the operation of microcomputers. Students unable to demonstrate such proficiency and knowledge may be required to enroll in non-credit programs developed by UTSA to correct deficiencies in these areas.

## Rhetoric

To achieve the objectives of the Rhetoric segment, students must demonstrate competence in writing 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.

Each student 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: Science, Technology, and Mathematics

To achieve the objectives of Domain I, students must demonstrate knowledge of higher mathematics sufficient to understand the bases of mathematical reasoning; knowledge of the methods, intellectual approaches, social significance, and history of the physical and natural sciences; an understanding of the role of technology and of the relationship between science and technology; and competence in the use of computers and/or acquaintance with the elements of logic.

Students will normally complete the requirements for Domain I in 12 semester credit hours of coursework.
A. Mathematics. Each student must complete one of the following courses (or another mathematics course at an equivalent or more advanced level):

| MAT | 1033 | Algebra with Calculus for Business |
| :--- | :--- | :--- |
| MAT | 1063 | College Algebra |
| STA | 1053 | Basic Statistics |
| STA | 1063 | Basic Statistics for Business and Economics |
| STA | 1073 | Statistics for Psychology |
| STA | 1993 | Statistical Methods for the Life and Social Sciences |

B. Science and Technology. Each student must complete two courses from the following lists. At least one of the courses must be listed under Level Two.

## Level One:

ANT 2033 Introduction to Physical Anthropology
BIO 1023 Human Sex and Reproduction
BIO 1033 Drugs and Society
CHE 1053 Chemistry of Ordinary Things
ENV 2013 Introduction to Environmental Systems
GEO 1013 The Third Planet
PHY 1014 Introduction to the Physical Sciences

Level Two (these courses have mathematics prerequisites at the level of the Core Curriculum requirement):

| AST | 1013 | Introduction to Astronomy |
| :--- | :--- | :--- |
| BIO | 1203 | Biology I |
| BIO | 1223 | Biology II |
| BIO | 3283 | Principles of Ecology |
| CHE | 1103 | General Chemistry |
| CHE | 1303 | Chemical Principles |
| GEO | 1103 | Introduction to Earth Systems |
| GEO | 1123 | Earth History |
| PHY | 1603 | General Physics I |
| PHY | 1623 | General Physics II |
| PHY | 1904 | Technical Physics I |
| PHY | 1924 | Technical Physics II |

C. Computer Science/Logic. Each student must complete one of the following courses ( 3 semester hours):

| CS | 1073 | Introductory Computer Programming for Scientific |
| :--- | :--- | :--- |
| CS | 1714 | Applications |
| Introduction to Computer Science |  |  |
| CS | 2073 | Computer Programming for Engineering Applications |
| CS | 2083 | Computer Applications and Technology |
| IS | 3003 | Principles of Information Systems for Management |
| MUS | 3313 | Microcomputer Applications in Music |
| PHI | 2043 | Introductory Logic |

## Domain II: Society and Culture

To achieve the objectives of Domain II, students must demonstrate critical understanding of the political and economic dimensions of social life; knowledge of United States 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 will normally fulfill the requirements of Domain II in 18 semester credit hours of coursework.
A. United States History and Diversity. Each student must complete two of the following courses, for a total of 6 semester credit hours. In meeting this requirement, students will fulfill the statutory requirement in United States or Texas history.

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

B. Political Studies. Each student must complete the following course:

POL 1013 Introduction to American Politics

In addition, each student must complete one of the following courses. By taking POL 1013 and one of the following, students will fulfill the statutory requirement in United States and Texas government.

POL 1023 The Politics of the American Economy
POL 1063 Ethics in America
POL 1083 The United States and the World
POL 1133 Texas Politics and Society
POL 1173 States, Communities, and Public Policy
POL 2023 Civil Liberties in American Law and Practice
C. Social and Behavioral Sciences. Each student must complete one of the following courses:

| AMS | 2013 | Basic Issues in American Culture <br> ANT <br> A1013 |
| :--- | :--- | :--- |
| Human Adaptation |  |  |
| CRL | 2003 | Language, Culture, and Society |
| GRG | 213 | The American Criminal Justice System |
| GRG | 1013 | Fundamentals of Geography |
| IDS | 2103 | The Individual, Family, and Community |
| IDS | 2113 | Society and Social Issues |
| PSY | 2013 | Fundamentals of Psychology |
| SOC | 1013 | Introduction to the Study of Society |
| SOC | 2013 | Social Problems |

D. Economics. Each student must complete one of the following courses:

| ECO | 2003 | Introduction to Political Economy |
| :--- | :--- | :--- |
| ECO | 2013 | Introductory Macroeconomics |
| ECO | 2023 | Introductory Microeconomics |

## Domain III: Literature, the Arts, and Language

To achieve the objectives of Domain III, students should demonstrate functional ability in the basic skills (listening, speaking, reading, and writing) of a language other than English; 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 way of comprehending the metaphoric or analogical potential of human language.

It is expected that most students will fulfill the Domain III requirement in 12-13 hours of coursework. Students may fulfill the requirements of Domain III by taking as few as 6 semester credit hours of coursework, if the language requirement is met entirely by proficiency examination. Students who demonstrate no proficiency in languages other than English may require up to 17 setnester credit hours to complete Domain III.

## A. Literature. Each student must complete one of the following courses:

| CLA | 2033 | Introduction to Classical Literature |
| :--- | :--- | :--- |
| CSH | 1103 | Literary Masterpieces of Western Culture I |
| CSH | 1133 | Literary Masterpieces of Western Culture II |
| ENG | 2013 | Introduction to Literature |


| ENG | 2213 | Literary Criticism and Analysis |
| :--- | :--- | :--- |
| ENG | 2383 | Minority Voices in American Literature |
| FRN | 3333 | French Literature in English Translation |
| FRN | 3413 | French Literature and Culture until 1800 |
| FRN | 3423 | French Literature and Culture since 1800 |
| GER | 3333 | German Literature in English Translation |
| GER | 3413 | German Literature and Culture I: Middle Ages to 1700 |
| GER | 3423 | German Literature and Culture II: 1700 to the Present |
| HBR | 3333 | Hebrew Literature in English Translation |
| IDS | 2303 | World Literature I, The Narrative Mode |
| IDS | 2313 | World Literature II, Dramatic and Lyric Modes |
| ITL | 3333 | Italian Literature in English Translation |
| RUS | 3333 | Russian Literature in English Translation |
| SPN | 3333 | Spanish Literature in English Translation |
| SPN | 3313 | Hispanic Literature I: Spain |
| SPN | 3323 | Hispanic Literature II: Spanish America |

B. The Arts. Each student 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 <br>  <br> AHC |
| 1133 | World from 1350 to 1750 |  |
| ARC | 2413 | Hisvey of Modern Art |
| ARC | 2423 | History of Architecture I I |
| ARC | 3613 | History of Moditecture A I |
| MUS | 2643 | Introduction to Opera and Oratorio |
| MUS | 2663 | History and Styles of Jazz |
| MUS | 2673 | History and Styles of Rock |
| MUS | 2683 | Masterpieces of Music |

C. Language. It is expected that most students will have done sufficient language work in secondary school that they will be able, after appropriate placement by examination, to enter at least the second semester of a language course sequence. Each student must demonstrate proficiency in a language other than English by completing a language course at the third-semester college level or by achieving an equivalent score on an approved proficiency examination. The courses listed below are the third-semester language courses:

| CHN | 2013 | Intermediate Chinese I |
| :--- | :--- | :--- |
| CLA | 2113 | Intermediate Latin I |
| FL | 2023 | Culture and Communication in a Foreign Language |
| FRN | 2006 | Intermediate French-Accelerated |
| FRN | 2013 | Intermediate French I |
| GER | 2006 | Intermediate German-Accelerated |
| GER | 2013 | Intermediate German I |
| HBR | 2013 | Intermediate Hebrew I |
| ITL | 2013 | Intermediate Italian I |
| JPN | 2013 | Intermediate Japanese I |
| RUS | 2013 | Intermediate Russian I |
| SPN | 2006 | Intermediate Spanish-Accelerated |
| SPN | 2013 | Intermediate Spanish I |
| SPN | 2103 | Intermediate Conversation and Composition |

SPN 2513 Spanish for Special Purposes

SPN 2523 Hispanic Culture and Communication
Students who are not United States citizens and whose native language is not English will be assumed to have completed the language requirement by achieving a passing score for University entrance on the TOEFL.

## Domain IV: Interdisciplinary Studies

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 6 semester credit hours of coursework. Each student must complete one course from each of the following lists:

Diversity of Thought:

| ARC | 1423 | Architecture and Thought |
| :--- | :--- | :--- |
| COR | 3003 | Topics in Intellectual Diversity |
| EGR | 1203 | Science, Technology, and Society |
| HON | 3203 | Honors Seminar on Diversity of Thought |
| IDS | 2003 | Modes of Inquiry Across the Fields of Study |
| IDS | 3003 | Science and Humanity |
| IS | 3233 | An Interdisciplinary Approach to Decision Making |
| MGT 4893 | Management Strategy and Policy |  |
| WGS 2013 | Introduction to Women and Gender Studies |  |

Diversity of Culture:
ARC 1413 Architecture and Culture
COR 2213 Engineering and Civilization
COR 3013 Topics in Cultural Diversity
CSH 1203 Introduction to Hispanic Cultures
CSH 1213 Topics in World Cultures
FL 4013 Cross-Cultural Communication
GRG 1023 World Regional Geography
HIS 2543 Introduction to Islamic Civilization
HON 3213 Honors Seminar on Diversity of Culture
HUM 3093 World Religions
IDS 2203 World Civilization to the Fifteenth Century
IDS 2213 World Civilization since the Fifteenth Century
PHI 3073 Oriental Philosophy

## 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. If a student drops out for one or more regular (Spring or Fall) semesters and returns to UTSA as a former student, he/she may choose a subsequent catalog under which
to complete graduation requirements (providing the student took at least one course under the selected 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.

## 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, etc.) may elect to complete other majors of that type concurrently. In such cases, only one bachelor's degree is awarded, which includes both majors.

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 will be required to follow specific catalog requirements for each degree, with only Core Curriculum requirements being used jointly.

## Pursuing Additional Degrees after Graduation

A student holding a baccalaureate degree from UTSA or from 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 hours of credit in 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

Commencing in the 1994 Fall term, UTSA offers formal minors in a variety of disciplines and in several interdisciplinary fields. Descriptions of minor requirements are included in Chapter Seven. Minors are entirely voluntary. No student is required to declare a minor.

## Transferring Courses

To prevent unnecessary loss of time and credit, prospective transfer students are encouraged to inform themselves as early as possible of UTSA's admission policies and degree requirements in their areas of interest. Questions regarding the transferability of courses should be addressed to the UTSA 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 following admission. This evaluation shows the equivalency of courses completed elsewhere to courses 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.

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 taken in these core curricula at various institutions may not be precisely equivalent to courses in the UTSA Undergraduate Catalog, students who have successfully completed these core curricula at other institutions are given full credit toward the appropriate degree at UTSA.

The transfer/admission grade-point average is calculated on all hours attempted at other institutions and includes repeated courses.

## Resolution of Transfer of Credit Disputes

The Texas Higher Education Coordinating Board has established the following procedure to be followed by Texas public colleges and universities 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 Admissions Office, 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 will state the reasons for the course denial to the Commission of Higher Education. The Commissioner or a designee will then provide 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 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. All work transferred must be from a college or university accredited by a regional accrediting association. Credits completed at foreign institutions are evaluated on an individual basis.

## 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 of this section. Only those hours which 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 which are 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 of upper-division level.

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, as 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 will transfer 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.

## 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 subject to a maximum of 6 semester 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, acceptable to the student's degree program, and all other transfer provisions of this section are met. However, the maximum credit accepted through a combination of extension and correspondence courses is 30 hours ( 18 -hour maximum by correspondence). No more than 6 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.

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

No upper-division credit may be earned at a junior college.
Courses from an Institution Undergoing Accreditation or a Nonaccredited Institution. Credits earned in colleges and universities which 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 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 which is a candidate for accreditation or from a nonaccredited institution.

## Not Accepted

Remedial, Orientation, Life Experience, High-School Level, Below-Algebra Mathematics, or Vocational-Technical Courses. Credits for courses such as remedial courses, orientation, life experience, high-school level courses, 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.

Military Service Training School Courses. Transfer credit for military service training school courses is not granted by UTSA. A student having taken such courses may challenge by examination those UTSA courses which appear equivalent to those already completed (see Challenge by Examination in the General Academic Regulations chapter of this catalog). Credit for R.O.T.C. or military science, when awarded by another accredited college or university, will be accepted by UTSA as free elective credit within the limitations of the student's degree program (to a maximum of 9 semester 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.

## 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.

## For Graduate Credit

An undergraduate student lacking no more than 12 semester 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) will count as undergraduate credit.
3. If graduate credit is earned, the semester 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 are offered. An approval form is available in the Deans' Offices. The form must be filed with the Office of Admissions and Registrar by the time of registration. Students are encouraged to begin seeking appropriate authorizations prior to the registration period.

## Graduation

## Graduation Dates

Degrees are conferred at the end of each semester and at the end of the Summer session. 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 prior to their actual date of graduation.

## Applying for the Degree

The student must apply for a degree at the Office of Admissions and Registrar as soon as possible after completion of 90 semester hours of earned credit. The Office of Admissions and Registrar 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 TO BE USED 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/or providing any adjustments to the DAAS Worksheet to the Office of Admission and Registrar 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 October 1 for the Fall semester, February 1 for the Spring semester, or June 15 for the Summer session. The application for graduation of any student submitted after the established deadlines for that semester will be processed for graduation for the following semester.

Students who apply for the degree in a given term but who 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 for a bachelor's degree and who have earned an overall grade-point average of 3.5 in all academic college work attempted and in all semester hours attempted at UTSA are eligible for graduation Cum Laude.

Those who have earned a grade-point average of 3.75 on an overall basis and at UTSA are eligible for graduation Magna Cum Laude.

Those who have earned a grade-point average of 4.0 on an overall basis and 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 (excluding courses challenged by examination or taken on a credit/no-credit basis in which only the symbol "CR" is recorded).

Tentative degree candidates must meet all requirements the semester prior to graduation in order to be recognized at the commencement ceremony.

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.

# 7. <br> UNDERGRADUATE PROGRAM REQUIREMENTS <br> 8 <br> COURSE LISTINGS 



## Undergraduate Program Requirements and Course Listings

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## COLLEGE OF BUSINESS



## COLLEGE OF BUSINESS

All undergraduate degrees in the College of Business are accredited by the American Assembly of Collegiate Schools of Business and conform to its recommended guidelines. Consistent with American Assembly of Collegiate Schools of Business guidelines, at least 50 percent of the business credit hours required for the College of Business degree must be taken at UTSA.

Students in the College of Business may not enroll in 3000- and 4000-level courses in the College of Business (with the exception of IS 3003) before declaring a major. Students majoring in fields outside the College of Business may not take more than 27 semester hours in this College without approval of the Dean of the College of Business.

Declaration of a major in the College of Business is limited to those students who meet the following minimum requirements:

1. Completion of $\mathbf{4 5}$ semester credit hours.
2. Cumulative grade-point average of 2.5 in all coursework.
3. Completion of the following eight ${ }^{1}$ courses or their equivalents with a gradepoint average of 2.25:

| ACC | 2013 | Accounting Principles I |
| :--- | :--- | :--- |
| ACC | 2033 | Accounting Principles II |
| ECO | 2013 | Introductory Macroconomics |
| ECO | 2023 | Introductory Microeconomics |
| MAT | 1033 | Algebra with Calculus for Business |
| STA | 1063 | Basic Statistics for Business and Economics |
| IS | 3003 | Principles of Information Systems for Management |
| COM | 1043 | Introduction to Communications |

Students seeking a Bachelor of Business Administration degree in the College of Business must take the following courses as part of their Core Curriculum requirement:

| MAT | 1033 | Algebra with Calculus for Business (Domain I) |
| :--- | :--- | :--- |
| IS | 3003 | Principles of Information Systems for Management <br> (Domain I) |
| ECO | 2013 | Introductory Macroeconomics (Domain II) |
| MGT | 4893 | Management Strategy and Policy (Domain IV) |

Students with a concentration in Building/Development must complete PHY 1603: General Physics I and PHY 1623: General Physics II to meet the science requirement of their Core Curriculum requirement.

All students seeking a B.B.A. degree in the College of Business must complete the following 45 semester credit hours of Common Body of Knowledge (CBK) courses:

[^5]Semester
Credit Hours
Course or Requirement
STA 1063 Basic Statistics for Business and Economics ..... 3
COM 1043 Introduction to Communication ${ }^{1}$ ..... 3
ACC 2013 Accounting Principles I ..... 3
ACC 2033 Accounting Principles II ..... 3
BLW 3013 Business Law ..... 3
ECO 2013 Introductory Macroeconomics ..... 3
ECO 2023 Introductory Microeconomics ..... 3
FIN 3013 The Finance Function ..... 3
IS 3003 Principles of Information Systems for Management ..... 3
MGT 3013 Introduction to Organization Theory, Behavior, and ..... 3
Management
MGT 3033 Management Science and Production Management ..... 3
MGT 3043 Business Communications ..... 3
MGT 4893 Management Strategy and Policy ..... 3
MKT 3013 Principles of Marketing ..... 3
PHI 2053 Business Ethics ..... 3

## DIVISION OF ACCOUNTING AND INFORMATION SYSTEMS

## BACHELOR OF BUSINESS ADMINISTRATION DEGREE IN ACCOUNTING

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 36 additional semester hours.
A. 24 semester hours of required accounting courses:

ACC 3023 Intermediate Financial Accounting I
ACC 3033 Intermediate Financial Accounting II
ACC 3043 Federal Income Tax Accounting
ACC 3113 Accounting Information Systems
ACC 3123 Cost Analysis
ACC 4013 Principles of Auditing
ACC 4153 Corporate and Partnership Taxation
3 semester hours of upper-division accounting electives.
B. ENG 2413 Technical Writing
C. 9 semester hours of non-accounting electives, of which 3 semester hours must be 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 sitting for the CPA examination in Texas after September 1, 1997, will change significantly. Students with questions about the requirements or eligibility should contact the Texas State Board of Public Accountancy, 1033 La Posada, Suite 3400, Austin, TX 78752-3894.

## COURSE DESCRIPTIONS <br> ACCOUNTING <br> (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 non-business majors and may not be applied toward a degree in the College of Business.

## 2013 Accounting Principles I

(3-0) 3 hours credit.
An introduction to the basic concepts of financial accounting. A course to provide coverage of the fundamental aspects of the accounting discipline by focusing on significant financial issues. [TCCN: ACCT 2301.]

2033 Accounting Principles II
(3-0) 3 hours credit. Prerequisite: ACC 2013.
A study of basic financial accounting and management's use of accounting to provide information for planning and controlling routine operations, long-range planning, inventory valuation, and nonroutine decision making. [TCCN: ACCT 2302.]

2043 Introduction to Accounting Topics
(3-0) 3 hours credit. Prerequisite: ACC 2033.
An introduction to more advanced accounting topics such as federal taxation and cost accounting. May not be applied to a major in Accounting. (Formerly ACC 3003. Credit cannot be earned for both ACC 2043 and ACC 3003.)

## 3023 Intermediate Financial Accounting I

(3-0) 3 hours credit. Prerequisite: ACC 2033.
A study of accounting theory and concepts. Analysis of the special problems which arise in applying these concepts to financial accounting and reporting.

## 3033 Intermediate Financial Accounting II

(3-0) 3 hours credit. Prerequisite: A grade of "C" or better in ACC 3023.

A study of accounting theory and concepts, with special focus on accounting for corporations, bonds, leases, and pensions.

3043 Federal Income Tax Accounting
(3-0) 3 hours credit. Prerequisite: A grade of "C" or better in ACC 3023. Fundamentals of federal income tax accounting, with emphasis on individual income tax, income inclusions and exclusions, and statutory deductions in computing tax liability.

## 3113 Accounting Information Systems

(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 may not be earned for both ACC 3113 and IS 3013.)

## 3123 Cost Analysis

(3-0) 3 hours credit. Prerequisite: ACC 2033.
A study of advanced cost-accounting systems, including cost allocation, unit cost determination, variance analysis, capital budgeting, inventory control, and other related quantitative methods. (Formerly ACC 4023. Credit may not be earned for both ACC 3123 and ACC 4023.)

## 3143 International Accounting

(3-0) 3 hours credit. Prerequisite: ACC 2043 or 3023.
A study of the accounting issues and problems of multinational corporations, including FAS52, and international accounting standard-setting. (Formerly ACC 4043. Credit may not be earned for both ACC 3143 and ACC 4043.)

4013 Principles of Auditing
(3-0) 3 hours credit. Prerequisites: A grade of "C" or better in both ACC 3033 and 3113.
A study of auditing theory, professional ethics, audit programs, evidential matter, and professional reports.

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 may not 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.

4083 Budgeting, Planning, and Forecasting
(3-0) 3 hours credit. Prerequisite: ACC 3123 or an 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.

## 4113 Analysis of Financial Statements

(3-0) 3 hours credit. Prerequisite: ACC 3033.
The theoretical foundations of financial statements and a study of the techniques for analyzing them.

4153 Corporate and Partnership Taxation
(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.

## 4173 Estate and Gift Taxation

(3-0) 3 hours credit. Prerequisite: ACC 3043.
Introduction to the federal estate and gift tax laws, with an emphasis on the applicable code sections and regulations.

4183 EDP Auditing and Advanced Problems
(3-0) 3 hours credit. Prerequisite: ACC 4013.
An in-depth analysis of the Statements of Auditing Standards, with special emphasis on evaluating internal control in an EDP environment and computer-assisted auditing.

## 4223 Oil and Gas Accounting

(3-0) 3 hours credit. Prerequisite: 12 hours of accounting.
A study of the critical aspects of the petroleum industry and related accounting problems. Topics include industry structure, development, production, transportation, and refining with associated accounting issues.

## 4911-3 Independent Study

1-3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, and 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 hours of independent study, regardless of discipline, will apply to a bachelor's degree.

## 4933 Internship in Accounting

3 hours credit. Prerequisites: ACC 3033, an overall 3.0 grade-point average, and permission in writing (form available) of the instructor, the student's advisor, and the Division Director and Dean of the College in which this course is offered.
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 twice (a total of 6 hours) provided the internships are with different organizations.

## BACHELOR OF BUSINESS ADMINISTRATION DEGREE IN INFORMATION SYSTEMS

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 36 additional semester hours.
A. 27 semester hours of information systems courses:

IS 2033 Introduction to Computer Concepts for Information Systems
IS 2043 Data Structures and File Processing
IS 3063 Data Base 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 hours of upper-division information systems coursework.
B. 6 semester hours of support work:

ACC 2043 Introduction to Accounting Topics
MGT 3023 Organizational Behavior
C. 3 semester hours of electives. These must be taken outside the College of Business.

## COURSE DESCRIPTIONS INFORMATION SYSTEMS

(IS)
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 COBOL programming, including control structures, arrays, lists, sequential file access and update, and modular design. (Credit may not be earned for both BDS 2013 and IS 2033.)

## 2043 Data Structures and File Processing

(3-0) 3 hours credit. Prerequisite: IS 2033.
An introduction to principles of file organization, including file structures, access methods, abstract data types, and object-oriented methods. A procedural language will be used to develop applications using these concepts. (Credit may not be earned for both BDS 2023 and IS 2043.)

3003 Principles of Information Systems for Management (3-0) 3 hours credit. Prerequisite: Familiarity with spreadsheet software. An analysis of managerial/organizational information needs. Current professional practices for developing information systems are studied. Includes coverage of hardware and software tools, information structures, and formal problem-solving techniques. Computer application cases will be assigned to illustrate the use of specific tools and techniques for solving problems.

3063 Data Base Management for Information Systems
(3-0) 3 hours credit. Prerequisite: IS 2043 or consent of instructor.
A study of data base management systems (DBMS) features, functions, and architecture, including logical design, data models, normalization, object-oriented data, and data base administration. A DBMS product will be used to illustrate principles. (Credit may not be earned for both BDS 3063 and IS 3063.)

3073 Application Development
(3-0) 3 hours credit. Prerequisite: IS 2043 or consent of instructor.
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 which address various classes of analytic problems. Principles of decision theory are addressed.

## 3233 An Interdisciplinary Approach to Decision Making (3-0) 3 hours credit.

This course is designed to study the decision-making process and examine how decisions are made. The course will concentrate on examining obstacles to decision making, understanding and using prescriptive models, and understanding the role of information systems in decision making.

## 4053 Analysis and Design of Information Systems

(3-0) 3 hours credit. Prerequisite: IS 3063 or consent of instructor. 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 hours of IS courses or consent of instructor.
Survey of recent developments in information technology. Analysis will focus on applications in the business community and theoretical developments which relate to those applications. Ordinarily taken during semester of graduation.

4073 The Information Resource
(3-0) 3 hours credit. Prerequisite: MGT 3023 or consent of instructor.
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: 9 hours of IS courses or consent of instructor.
An overview of data and computer communications. Topics include communication systems technology, computer networks and control, network design and management, Local/Wide Area Networks, and distributed computer systems.

## 4133 Advanced Telecommunications for Business

(3-0) 3 hours credit. Prerequisite: IS 4123 or consent of instructor.
An advanced study of data and computer communications. Topics include network architectures and protocols, control, security, ethics, economics, and the regulatory environment.

## 4163 Advanced Programming Concepts

(3-0) 3 hours credit. Prerequisite: IS 3063 or consent of instructor.
A survey of programming languages and application development facilities. Topics may include procedural languages as well as very highlevel languages, end-user application development languages, objectoriented languages, logic programming languages, and expert system shells.

## 4173 Systems Development Project

(3-0) 3 hours credit. Prerequisites: IS 4053 or consent of instructor. Students will address the solution of an information system problem using project management and information systems methodologies in a group project environment.

4183 Advanced Data Base Concepts
(3-0) 3 hours credit. Prerequisites: IS 3063 or consent of instructor.
In-depth consideration of concepts governing the design and management of data base systems. Topics include data base design, distributed data
bases, data base administration, object-oriented data modeling, and performance evaluation.

4193 Human-Computer Interaction
(3-0) 3 hours credit. Prerequisites: IS 3063 or consent of instructor. A study of the technology for human-computer interaction. The design of computer interfaces, including dialogues, graphics, and hypertext, is analyzed in relation to the study of human cognition and information processing.

## 4913 Independent Study

3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, and the Division Director and Dean of the College in which the course is offered.
Independent research in an information systems topic, under the direction of a faculty member. May be repeated for credit, but not more than 6 hours of independent study, regardless of discipline, will apply to a bachelor's degree.

## 4933 Internship in Information Systems

3 hours credit. Prerequisites: 9 hours of information systems or business data systems courses, an overall 3.0 grade-point average, and permission in writing (form available) of the instructor, the student's advisor, and the Division Director and Dean of the College in which the course is offered.
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 twice (a total of 6 hours) provided the internships are with different organizations.

4953 Special Studies in Information Systems
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 courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

## DIVISION OF ECONOMICS AND FINANCE

## BACHELOR OF BUSINESS ADMINISTRATION DEGREE IN ECONOMICS

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 45 additional semester hours. Thirty-nine of the total semester hours required for the degree must be at the upper-division level.
A. 21 upper-division semester hours in the major:

ECO 3033 Economics of Managerial Decisions
ECO 3053 Aggregate Economic Analysis
ECO 3113 Introduction to Mathematical Economics
ECO 3123 Forecasting Techniques in Business and Economics 9 additional hours of ECO upper-division electives.
B. 24 semester hours of support work:

ACC 2043 Introduction to Accounting Topics
ACC 3023 Intermediate Financial Accounting I
3 hours of College of Business upper-division electives.
9 semester hours of free electives.
6 semester hours of electives which must be taken outside the College of Business.

## BACHELOR OF ARTS DEGREE IN ECONOMICS

In addition to the Core Curriculum requirements, all candidates for the degree must complete 78 additional semester hours. Thirty-nine of the total semester hours required for the degree must be at the upper-division level.
A. 30 semester hours of required courses in the major:

ECO 2013 Introductory Macroeconomics
ECO 2023 Introductory Microeconomics
ECO 3013 Theory of Price
ECO 3053 Aggregate Economic Analysis
ECO 3113 Introduction to Mathematical Economics
ECO 3123 Forecasting Techniques in Business and Economics
12 additional semester hours in economics, as approved by the student's advisor.
B. 24 semester hours of support work (students wishing to pursue a graduate degree in Economics should consult with a faculty advisor in Economics when planning their support work):

6 required semester hours:

18 semester hours distributed as follows:
6 semester hours in the College of Business.
12 semester hours of social science, to be 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).
C. 24 semester hours to be taken as follows:

COM 1043 Introduction to Communication
STA 1063 Basic Statistics for Business and Economics
18 semester hours of free electives (no more than 9 semester hours of this group may be in additional economics courses).

## MINOR IN ECONOMICS

All students pursuing the minor in Economics must complete 18 semester credit hours:
A. 6 semester hours of required courses:

ECO 2013 Introductory Macroeconomics
ECO 2023 Introductory Microeconomics
B. 12 additional hours of upper-division economics courses.

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

## COURSE DESCRIPTIONS ECONOMICS <br> (ECO)

## 2003 Introduction to Political Economy

(3-0) 3 hours credit.
A nontechnical introduction to economic analysis and its application to current economic issues such as inflation, unemployment, taxation, economics concentration and power, energy, health and welfare, and international commerce. 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: MAT 1013 or an equivalent.
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: MAT 1013 or an equivalent. 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, 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, 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 an equivalent; MAT 1033 or an equivalent; or consent of instructor.
Mathematical formulations of economic theory; mathematical treatment of optimizing behavior; applications to consumer and business firm theory; and emphasis on understanding of analytical techniques.

## 3123 Forecasting Techniques in Business and Economics

(3-0) 3 hours credit. Prerequisites: MAT 1033, STA 1063, 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 Development of Economic Thought

(3-0) 3 hours credit.
Evolution of economic theory and doctrine; contributions to economic thought from ancient times to the present; and emphasis on institutional forces shaping the continuum of economic thinking.

## 3183 Economic Development of the United States

(3-0) 3 hours credit. Prerequisite: ECO 2013, 2023, or an equivalent. The growth of the American economy from colonial times to the present. Special emphasis on the market forces, institutional arrangements, and policies contributing to this process.

3193 The International Economy
(3-0) 3 hours credit. Prerequisite: ECO 2013, 2023, an 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: ECO 2023, an 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: ECO 2013, 2023, an 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: ECO 2023 or an 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 Choice and the Public Finances

(3-0) 3 hours credit. Prerequisites: ECO 2013 and 2023.
Definition of public goods and the application of economic models to the public sector. Analysis of govemment expenditure policy, including various budgeting frameworks and cost-benefit analysis. Investigation of sources of government revenue, including taxation and incidence concepts.

## 3283 Labor Economics

(3-0) 3 hours credit. Prerequisite: ECO 2013, 2023, an 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 2023 or an equivalent.
Economic principles applied to natural resource and environmental problems; relationship of market and non-market forces to environmental quality and demands for natural resources; and development of tools for policy analysis.

4283 Economics of Employment and Training
(3-0) 3 hours credit. Prerequisite: ECO 2023 or an equivalent.
Economics of human resource development; examination of programs for training and upgrading of workers; barriers to skill development and job entry; and formulation of public policies on human resources.

4293 Economics of Discrimination and Poverty
(3-0) 3 hours credit. Prerequisite: ECO 2023, an equivalent, or consent of instructor.
Economic and non-economic implications of discrimination on the basis of race and sex; discrimination in the labor and commodity markets; problems of educational training, unemployment, and personal income distribution.

4303 Economic Problems of Developing Countries
(3-0) 3 hours credit. Prerequisite: ECO 2013, an 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.

4463 Medical and Health Economics (3-0) 3 hours credit. Prerequisite: ECO 2023 or an equivalent. Economic analysis of medical and health services. Physician and dentist pricing; hospital supply; markets in health-related professions; drug and equipment markets; medical and health insurance; and national priorities and policy for health service delivery.

## 4913 Independent Study

3 hours credit. Prerequisites: Permission in writing (form available) of 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 hours of independent study, regardless of discipline, will apply to a bachelor's degree.

## 4933 Internship in Economics

3 hours credit. Prerequisite: 12 hours of upper-division economics and permission in writing (form available) of the instructor, the student's advisor, and the Division Director and Dean of the College in which the course is offered.
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 twice (a total of 6 hours) provided the internships are with different organizations.

4953 Special Studies in Economics
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 courses may be repeated for credit when the topics vary,
but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

## BACHELOR OF BUSINESS ADMINISTRATION DEGREE IN FINANCE

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 45 additional semester hours.
A. 18 upper-division semester hours in the major:

FIN 3033 Principles of Investment
FIN 3313 Money and Banking
12 additional hours of FIN electives.
B. 27 semester hours of support work:

ACC 3023 Intermediate Financial Accounting I
ACC 3033 Intermediate Financial Accounting II
ACC 3123 Cost Analysis
ECO 3033 Economics of Managerial Decisions
3 hours of College of Business upper-division electives.
6 semester hours of free electives.
6 semester 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. $\quad 18$ semester hours of required courses:

ACC 2013 Accounting Principles I
ACC 2033 Accounting Principles II
FIN 3013 The Finance Function
FIN 3033 Principles of Investment
FIN 3313 Money and Banking
MAT 1033 Algebra with Calculus for Business
B. 9 additional hours of upper-division finance electives.

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

## COURSE DESCRIPTIONS FINANCE (FIN)

## 2003 Personal Finance

(3-0) 3 hours credit.
A nontechnical course examining various aspects of budgeting, banking, real estate, insurance, consumer credit, and retirement plans from the individual's point of view. May not be applied toward a major in Finance but may be counted as a free elective for College of Business students.

3013 The Finance Function
(3-0) 3 hours credit. Prerequisites: ACC 2013, 2033, and MAT 1033, or their equivalents.
Introduction to financial management techniques for efficient use of working capital, sources and uses of funds, and fixed assets, as well as capital investment analysis and financing alternatives. Includes examination of factors relating to risk, dividend policy, and financial instruments that must be considered in formulating successful corporate policy in an internationally competitive environment.

## 3023 Corporate Finance

(3-0) 3 hours credit. Prerequisite: FIN 3013 or an 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 will also be considered.

## 3033 Principles of Investment

(3-0) 3 hours credit. Prerequisite: FIN 3013 or an equivalent.
Introduction to securities markets; analysis of securities issued by corporations in various industries by intermediaries and federal, state, and municipal governments; investment management in the light of tax considerations, timing, and selected portfolio needs.

## 3313 Money and Banking

(3-0) 3 hours credit. Prerequisite: ECO 2013 or an 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 actual business problems and the application of financial theory and techniques are used to illustrate the process required to formulate financial decisions.

3413 Financial Markets
(3-0) 3 hours credit. Prerequisite: FIN 3313 or an 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 an 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.

3503 Real Estate Investment
(3-0) 3 hours credit. Prerequisites: FIN 3013 and 3433, or their equivalents.
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.

## 4313 Commercial Bank Management

(3-0) 3 hours credit. Prerequisite: FIN 3313 or an equivalent.
Direction and coordination of the various functions of the commercial bank, including money position, lending, capital management, and trust and auxiliary functions.

4403 Capital Structure and Budgeting
(3-0) 3 hours credit. Prerequisite: FIN 3013 or an equivalent.
Application of long-term economic decision analysis to financial planning in both profit and non-profit institutions; development of allocation criteria for sources and uses of scarce financial resources.

4423 Investment Portfolio Management
(3-0) 3 hours credit. Prerequisite: FIN 3033 or an 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.

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 an 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 their equivalents.
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.

## 4813 Property/Liability Insurance

(3-0) 3 hours credit. Prerequisite: FIN 3013 or an 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 an 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.

## 4913 Independent Study

3 hours credit. Prerequisites: Permission in writing (form available) of 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 hours of independent study, regardless of discipline, will apply to a bachelor's degree.

4933 Internship in Finance
3 hours credit. Prerequisites: 12 hours of upper-division finance courses and permission in writing (form available) of the instructor, the student's advisor, and the Division Director and Dean of the College in which this course is offered.
The opportunity for work experience in research of financial operations, including real estate and insurance; 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. This course will not count toward the 21 hours of required finance courses. Internships may be repeated twice (a total of 6 hours) provided the internships are with different organizations.

4953 Special Studies in Finance
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 courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

## COURSE DESCRIPTIONS BUSINESS LAW (BLW)

## 2003 Gender Law

(3-0) 3 hours credit.
The administrative agency, judicial decisions, and legislation involving gender issues, including women and children, women and marriage, and women in the work place.

## 3013 Business Law

(3-0) 3 hours credit.
The contemporary environment of business law, including the origin and development of law, the law of contracts and Article 2 of the Uniform Commercial Code, the judicial processes, and an introduction to the legal structure of business organizations and related topics in light of social, ethical, political, economic, and global perspectives.

## 3023 Business Organizations and Commercial Law

(3-0) 3 hours credit. Prerequisite: BLW 3013 or an equivalent.
Detailed study of topics under the Uniform Commercial Code, commercial paper, documents of title, investment contracts, secured transactions, and also bankruptcy, securities regulations, accountants' liability, and the legal operation of the general and limited partnership and the business corporation.

## 3213 Legal Relations of Business

(3-0) 3 hours credit. Prerequisite: BLW 3013 or an equivalent.
Study of government regulations affecting employees and employers, competition, unfair and deceptive trade practices, and social responsibilities of business; regulation of property through wills, trusts, and estates, deeds and mortgages, and other related legal mechanisms; and the current
trends of government regulation of business, particularly as affected by social, political, and ethical perspectives, including an introduction to international law.

## 3423 Insurance Law

(3-0) 3 hours credit. Prerequisite: BLW 3013 or an equivalent.
Offers the opportunity to learn the fundamentals of insurance law, including the concept of insurance, the marketing of insurance, indemnity and subrogation, protected interests and persons, identification of risk, problematic insurance policy provisions, the process of claims and settlements, insurance regulations, and the resolution of disputed claims.

3523 Real Estate Law
(3-0) 3 hours credit. Prerequisite: BLW 3013 or an equivalent.
Legal environment of real property ownership, 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.

4913 Independent Study
3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, and 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 hours of independent study, regardless of discipline, will apply to a bachelor's degree.

## 4953 Special Studies in Business Law

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 courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

# DIVISION OF MANAGEMENT AND MARKETING <br> BACHELOR OF BUSINESS ADMINISTRATION DEGREE IN MANAGEMENT WITH A CONCENTRATION IN INTERNATIONAL BUSINESS 

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 additional semester hours.
A. 15 upper-division semester hours of international courses in the College of Business:

ECO 3193 The International Economy
FIN 4613 Introduction to International Finance
MGT 4073 International Management
MKT 4073 International Marketing
3 semester hours to be selected from the following:
ACC 3143 International Accounting
ECO 4303 Economic Problems of Developing Countries
ECO 4953 Special Studies in Economics (international courses)
MGT 4083 Comparative International Management Practices
B. 6 semester hours of support work within the College of Business:

ACC 2043 Introduction to Accounting Topics
MGT 3023 Organizational Behavior
C. 9 semester hours of directed elective support work outside the College of Business, as follows (some of these courses may be taken to fulfill Core Curriculum requirements):

3 semester hours from the following:
GRG 1023 World Regional Geography
GRG 3123 Geography of Latin America
GRG 3213 Cultural Geography
GRG 3613 Conservation of Resources
GRG 3633 Geography of Development
3 semester hours from the following:

| HIS | 2533 | Introduction to Latin American Civilization |
| :--- | :--- | :--- |
| HIS | 2543 | Introduction to Islamic Civilization |
| HIS | 2553 | Introduction to Asian Civilization |
| HIS | 2563 | Introduction to European Civilization |
| HIS | 2573 | Introduction to African Civilization |
| HIS | 3283 | Twentieth-Century Europe |
| HIS | 3303 | History of Mexico |
| HIS | 3523 | European Cultural History |

HIS 3823 History of American Foreign Policy
IDS 2213 World Civilization Since the Fifteenth Century*

3 semester hours from the following:

| POL | 1083 | U.S. in the World* |
| :--- | :--- | :--- |
| 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 | 3493 | Politics of the Middle East |

D. 6 semester hours of College of Business upper-division electives. These 6 hours are in addition to the Core Curriculum and CBK requirements.
E. 6 semester hours of free electives.
*This course also meets part of the Core Curriculum requirement.

## BACHELOR OF BUSINESS ADMINISTRATION <br> DEGREE IN MANAGEMENT WITH A CONCENTRATION IN LEADERSHIP AND ADMINISTRATION

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 additional semester hours.
A. 15 required upper-division semester hours in the major, in addition to the 12 hours of management courses in the CBK:

MGT 3023 Organizational Behavior
MGT 4073 International Management
MGT 4203 Business and Society
MGT 4213 Advanced Organization Theory
MGT 4343 Production Management Applications
or
MGT 4363 Quality Management and Control
B. 6 semester hours of support work within the College of Business:

ACC 2043 Introduction to Accounting Topics
FIN 3313 Money and Banking
C. 12 semester hours of directed elective support work outside the College of Business, as follows (some of these courses may be taken to fulfill Core Curriculum requirements):

3 hours 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 |
| IDS | 2003 | Modes of Inquiry Across the Fields of Study |
| IDS | 2203 | World Civilization to the Fifteenth Century* |
| IDS | 2213 | World Civilization Since the Fifteenth Century* |
| IDS | 3003 | Science and Humanity |
| PHI | 2033 | Introduction to Modern Philosophy |

3 hours from the following:
COM 2113 Public Speaking
COM 2343 Introduction to Mass Communications Any upper-division course in communications (COM).

3 hours from the following:
AMS 2013 Basic Issues in American Culture
ANT 1013 Human Adaptation
BBL 2003 Language, Culture, and Society
ENV 2013 Introduction to the Environmental Systems*
ENV 3023 Man and His Natural Resources
IDS 2113 Society and Social Issues*
Any upper division course in Anthropology (ANT).
Any upper-division course in History (HIS).
3 hours from the following:

| GRG | 1013 | Fundamentals of Geography* |
| :--- | :--- | :--- |
| POL | 1083 | U.S. in the World* |
| POL | 2603 | International Politics |
| POL | 2633 | Comparative Politics |

Any upper-division course in Geography (GRG).
Any upper-division course in Political Science (POL).
Any upper-division course in Social Science (SSC).
D. 9 hours of College of Business upper-division electives. These 9 hours are in addition to the Core Curriculum and CBK requirements.
E. 3 semester hours of free electives.
*This course also meets part of the Core Curriculum requirement.

## BACHELOR OF BUSINESS ADMINISTRATION <br> DEGREE IN MANAGEMENT WITH A CONCENTRATION IN BUILDING/DEVELOPMENT

The degree is offered with joint support of the Architecture program. Architecture courses are described under the Division of Art and Architecture.

Students with a concentration in Building/Development must complete PHY 1603 and PHY 1623: General Physics I and II, to meet the science requirement of their Core Curriculum requirements.

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 additional semester hours.
A. 39 semester hours of support work:

ACC 2043 Introduction to Accounting Topics
ARC 2213 Construction Materials and Concepts
ARC 3203 Housing and Land Development
ARC 4013 Building Construction Estimating
ARC 4113 Project Development
ARC 4513 Professional Practice
ARC 4613 Construction Management
BLW 3523 Real Estate Law
FIN 3433 Principles of Real Estate
FIN 3503 Real Estate Investment
FIN 4713 Mortgage Banking and Real Estate Finance
GRG 3523 Introduction to Urban Planning
MGT 3023 Organizational Behavior
B. 6 additional semester hours of electives to be selected from the following:

ARC 3333 Practicum
ARC 4223 Computer Applications in Design
ARC 4233 Computer Projects in Design

## MINOR IN MANAGEMENT

The minor in Management is for business majors only. All students pursuing the minor in Management must complete 18 semester credit hours:
A. 9 semester hours of required courses:

MGT 3013 Introduction to Organization Theory, Behavior, and Management
MGT 3023 Organizational Behavior
MGT 3043 Business Communications
B. 9 semester hours selected from the following:

MGT 3123 Organizational Communications
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 4863 Ethical and Social Issues in Management
MGT 4883 Small Business Management

To declare a minor in Management and to seek approval of courses, students should consult any full-time management faculty. Advisement and other questions should be directed to the College of Business Advising Office.

## BACHELOR OF BUSINESS ADMINISTRATION DEGREE IN MANAGEMENT SCIENCE

Management Science is a general discipline which supports and supplements human decision-making abilities. It uses computers, mathematics, and statistics for the purposes of analyzing, understanding, visualizing, interpreting, and forecasting data. It seeks to provide a rational basis for decision analysis across a broad spectrum of decision problems.

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 additional semester hours.
A. 18 upper-division semester hours in the major, in addition to the 12 hours of CBK management courses:

MGT 3063 Management Decision Support Systems
MGT 4323 Simulation Applications in Business
MGT 4343 Production Management Applications
MGT 4573 Management Science Applications in Business
6 additional hours of management electives, as approved by the student's advisor.
B. 27 semester hours of support work:

ACC 2043 Introduction to Accounting Topics
MGT 3023 Organizational Behavior
3 semester hours of College of Business upper-division electives.
6 semester hours of electives outside the College of Business.
12 semester hours of free electives.

## MINOR IN MANAGEMENT SCIENCE

The minor in Management Science is for business majors only. All students pursuing the minor in Management Science must complete 18 semester credit hours:
A. 6 semester hours of required courses:

MGT 3033 Management Science and Production
MGT 4573 Management Science Applications in Business
B. 6 semester hours of courses selected from the following:

MGT 3063 Management Decision Support Systems
MGT 3313 Statistical Applications in Business
MGT 4323 Simulation Applications in Business
MGT 4343 Production Management Applications
MGT 4353 Advanced Projects in Management Science

## MGT 4363 Quality Management and Control <br> MGT 4583 Current Technology: Issues for Business

C. 6 upper-division semester hours relevant to management science from within the student's major area. These courses must be approved in writing by the management science faculty.

To declare a minor in Management Science and to seek approval of courses and advisement, students should consult any management science full-time faculty in the Division of Management and Marketing. Other questions should be directed to the College of Business Advising Office.

## BACHELOR OF BUSINESS ADMINISTRATION DEGREE IN PERSONNEL/HUMAN RESOURCE MANAGEMENT

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 additional semester hours.
A. 18 upper-division semester hours in the major, in addition to the 12 hours of CBK management courses:

MGT 3613 Personnel Administration
MGT 3623 Compensation Administration
MGT 4633 Labor Relations
MGT 4803 Human Resources Management
6 additional semester hours in personnel/human resources, as approved by the student's advisor.
B. 27 semester hours of support work:

ACC 2043 Introduction to Accounting Topics
ENG 2413 Technical Writing
MGT 3023 Organizational Behavior
6 semester hours of electives outside the College of Business.
12 semester hours of free electives.

## COURSE DESCRIPTIONS <br> MANAGEMENT <br> (MGT)

## 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. The evolution and application of strategic analysis, planning, decision making, and organization theory and behavior is explored within the context of changing technological, social, and political/legal environments and the internationalization of the economy. Special emphasis is given to the ethical dimensions of management and social responsibility.

## 3023 Organizational Behavior

(3-0) 3 hours credit. Prerequisite: MGT 3013 or an equivalent.
Behavioral theory and empirically derived knowledge as they relate to the functioning of individuals, pairs, and groups in organizations. Investigation of the organization as a complex of tasks, structures, tools, and people in states of continuous change.

## 3033 Management Science and Production Management

(3-0) 3 hours credit.
A study of the basic quantitative techniques and approaches to decision analysis applied to business situations. The course emphasizes model building as a foundation for generalized thinking and problem solving. An introduction to the operations and production management functions in business including the creation of goods and services. Students use microcomputers for analysis of alternative solutions to a wide variety of problems.

3043 Business Communications
(3-0) 3 hours credit. Prerequisite: MGT 3013 or consent of Division Director.
Introduction to basic communication theory and interpersonal communications through the written medium, with practical applications in business organizations. Emphasis is on report planning and preparation and correspondence strategy, including research and analysis, linkage of meaning and understanding between writer and reviewer, and visual displays. Focus is on written presentations and assignments supplemented with oral presentations. The role of ethics in business communication is explored.

## 3063 Management Decision Support Systems

(3-0) 3 hours credit.
A study of the modern computer hardware and software currently used in managerial and personal/professional decision processes. Topics include expert systems, artificial intelligence, and communication networks. Emphasis is given to the concept of decision support systems and to hands-on experience using techniques and microcomputer tools to build systems which can support decision processes. (Formerly MGT 3053. Credit may not be earned for both MGT 3063 and MGT 3053.)

## 3123 Organizational Communications

(3-0) 3 hours credit. Prerequisites: MGT 3013 and 3023, or their equivalents.
Importance of and problems in effective communication within the organizational setting. Special emphasis will be given to problems of horizontal and vertical communication, communication blockages, informal communication channels, and the effects of organizational structure and leadership patterns on communication. The course will also stress the means of evaluating organizational communication effectiveness.

## 3253 Interpersonal Communication

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

## 3313 Statistical Applications in Business

(3-0) 3 hours credit.
Introduction to multivariate statistical analysis used in research in organizational and behavioral management, marketing, human resources, finance, and operations management. Examples and procedures for experimental design, data collection and display, data interpretation, hypothesis testing, and forecasting in business systems. Extensive use of computer statistical packages such as SPSS and SAS.

## 3613 Personnel Administration

(3-0) 3 hours credit. Prerequisite: MGT 3013 or consent of instructor.
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.

3623 Compensation Administration
(3-0) 3 hours credit. Prerequisite: MGT 3613 or an equivalent.
Development and administration of wage and salary programs for organizations. Emphasis upon objectives, policies, organization, and control of compensation systems.

## 4073 International Management

(3-0) 3 hours credit. Prerequisite: MGT 3013, an equivalent, or consent of instructor.
Management in a multinational context. The study of international business strategy, structure, organization options, staffing, communications, cultural dimensions, and different countries' objectives and political/legal frameworks. Emphasis on thinking globally and competitively.

## 4083 Comparative International Management Practices

(3-0) 3 hours credit. Prerequisite: MGT 3013, an equivalent, or consent of instructor.
The study of management practices of other countries, including their cultural, social, political/legal, and industrial economic perspectives. Emphasis on different international regions at different times and their impact on American and global management practices.

## 4203 Business and Society

(3-0) 3 hours credit. Prerequisite: Upper-division standing in the College of Business or consent of instructor.
A study of the impact of societal influences on the business decisionmaking 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.
Advanced study of the structure and process of organizations. Emphasis upon such topics as typologies of organizational complexity and formalization, goals and effectiveness, communication and decision-making
processes, and organizational development and change. Contingency views of organizations are stressed.

4233 Current Topics in Leadership and Administration (3-0) 3 hours credit. Prerequisites: MGT 3013 and 3023, or consent of instructor.
Analysis of current trends, issues, or events affecting the management of organizations in complex and changing environments. May be repeated for credit when topics vary.

4323 Simulation Applications in Business
(3-0) 3 hours credit. Prerequisite: MGT 3033.
A study of the techniques for modeling and analysis of business processes using computer simulation. Selected example applications from financial, marketing, and operations functions. Emphasis on the use of computer simulation in support of the management decision process.

4343 Production Management Applications
(3-0) 3 hours credit. Prerequisite: MGT 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 the problems arising in operations management.

4353 Advanced Projects in Management Science (3-0) 3 hours credit. Prerequisites: MGT 3033 and 3063.
Students will participate in the design and development of managerial support systems to address selected decision problem areas.

4363 Quality Management and Control (3-0) 3 hours credit. Prerequisite: MGT 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.

4573 Management Science Applications in Business
(3-0) 3 hours credit. Prerequisite: MGT 3033.
The application of decision analysis to problems from a wide variety of business disciplines. The emphasis is on providing students with capabilities for applying management science techniques to problems from their own areas of interest.

## 4583 Current Technology: Issues for Business

 (3-0) 3 hours credit. Prerequisite: MGT 3033.Survey of state-of-the-art technology in selected industries from a business perspective. Topics include robotics, flexible manufacturing systems, expert systems, artificial intelligence, office automation, and microcomputer systems and networks. Emphasis is on identifying what is currently available and on exploring future trends and consequences.

4623 Recruiting and Selection
(3-0) 3 hours credit. Prerequisite: MGT 3613.
Focus is on the recruiting and selection processes in organizations. Emphasis is placed on topics such as needs analysis, selection techniques, recruitment sources, and legal issues. Additional emphasis is placed on research techniques in human resources management.

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

4643 Human Resources Law
(3-0) 3 hours credit. Prerequisite: MGT 3613 or an equivalent.
An analysis of historical and contemporary laws in the United States which affect the personnel function. Integration of labor and employment law with the social and economic forces shaping the current labormanagement environment.

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

## 4673 Performance Appraisal

(3-0) 3 hours credit. Prerequisite: MGT 3613 or consent of instructor. A study of performance appraisal from the perspective of the administration of the personnel function. The course examines and evaluates performance appraisal systems and methods. In addition, emphasis is placed on the cost of human resource decisions related to productivity and performance.

## 4803 Human Resources Management

(3-0) 3 hours credit. Prerequisites: MGT 3613, 3623, and 4633, or their equivalents.
Focuses on federal legislation applicable to selection and promotion decisions, methods of validating selection procedures, implementation of affirmative action programs, and methods of forecasting future human resource requirements. Emphasis is placed upon integrating these functions and others into an overall personnel policy.

## 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.

## 4863 Ethical and Social Issues in Management

(3-0) 3 hours credit. Prerequisite: Upper-division standing in the College of Business or consent of instructor.
Challenges students to order their thoughts, values, and behavior in operational, directional, and constitutional contexts. Develops a moral frame of reference offering both individual and operational guidance contributing to social justice.

## 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: Semester of graduation and consent of instructor.
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 skills of analysis and effective communication in the light of current management thinking are emphasized.

## 4912,3 Independent Study

2, 3 hours credit. Prerequisites: Permission in writing (form available) of the instructor, the student's advisor, and the Division Director and Dean of the College in which the course is taken.
Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 hours of independent study, regardless of discipline, will apply to a bachelor's degree.

4933 Internship in Management
3 hours credit. Prerequisites: 9 hours of management courses and permission in writing (form available) of the instructor, the student's advisor, and the Division Director and Dean of the College in which the course is offered.
The opportunity for work experience in research or operations, including personnel. May be undertaken in either private business or a public agency. Opportunities are developed in consultation with faculty advisor and Division Director and require approval of both. Internships may be repeated twice (a total of 6 hours) provided the internships are with different organizations.

4953 Special Studies in Management
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 courses may be repeated for credit when the topics vary,
but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

## BACHELOR OF BUSINESS ADMINISTRATION DEGREE IN MARKETING

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

MKT 3013 Principles of Marketing
MKT 3023 Marketing Analysis for Decision Making
MKT 3073 Introduction to Marketing Management
MKT 3083 Marketing Research
9 additional hours of MKT electives.
B. 27 hours of support work:

ACC 2043 Introduction to Accounting Topics
ECO 3053 Aggregate Economic Analysis
FIN 3313 Money and Banking
9 hours outside the College of Business:
3 hours from the following:
GRG 1013 Fundamentals of Geography*
GRG 1023 World Regional Geography
GRG 3123 Geography of Latin America
GRG 3213 Cultural Geography
GRG 3613 Conservation of Resources
GRG 3633 Geography of Development
3 hours from the following:
HIS 2533 Introduction to Latin-American Civilization
HIS 3283 Twentieth-Century Europe
HIS 3303 History of Mexico
HIS 3343 Modern Central America and the Caribbean
HIS 3353 Latin America Since Independence
HIS 3823 History of American Foreign Policy
IDS 2213 World Civilization Since the Fifteenth Century*
3 hours from the following:
POL 1083 U.S. in the World*
POL 2083 Current Issues in World Politics
POL 2603 International Politics
POL 2633 Comparative Politics
POL 3093 Mexican-American Politics
POL 3393 Latin-American Politics

9 hours of free electives.
*This course also meets part of the Core Curriculum requirement.

## COURSE DESCRIPTIONS MARKETING <br> (MKT)

3013 Principles of Marketing
(3-0) 3 hours credit.
Introduction to basic principles of marketing. An examination of market analysis processes and their use to develop the organization's product mix and the integration of the communication, distribution, and pricing strategies to achieve profit and service goals.

3023 Marketing Analysis for Decision Making
(3-0) 3 hours credit. Prerequisite: Concurrent enrollment in MKT 3013. A focus on the analysis and evaluation of the marketplace, emphasizing secondary data sources and decision models. Factors that may influence business decisions are examined and market segmentation models are used to select market targets. Personal computers are integrated into a marketing decision framework.

3033 Promotion
(3-0) 3 hours credit. Prerequisite: MKT 3073.
Emphasis is placed on the coordination of advertising, personal selling, and sales promotion into a promotional mix and the integration of this program into the total marketing mix of the firm.

3043 Advertising
(3-0) 3 hours credit. Prerequisite: MKT 3073.
The course stresses planning advertising strategy, developing messages, selecting media, and testing effectiveness. Also explores the theory, history, and social and economic aspects and the problems of ethics and truth in advertising.

3053 Sales Management
(3-0) 3 hours credit. Prerequisite: MKT 3073.
An examination of managerial strategies, goals, and tools of analysis in the administration of an effective sales force.

3063 Persuasive Communication in Marketing
(3-0) 3 hours credit. Prerequisite: MKT 3073.
Focuses on professional salesmanship. Fundamentals of persuasive interpersonal communication and buyer motivation are stressed as the foundation to effective selling.

3073 Introduction to Marketing Management
(3-0) 3 hours credit. Prerequisite: MKT 3023.
An examination of the processes of market analysis, goal setting, and strategy formulation. Emphasis is on decision making at the firm level in analyzing opportunities, diagnosing competitive situations, and designing plans of action.

## 3083 Marketing Research

 (3-0) 3 hours credit. Prerequisite: MKT 3023.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.)

3093 Product Management
(3-0) 3 hours credit. Prerequisite: MKT 3073.
Basic product and strategy concepts are examined, including the management of innovation and market-product integration. Product development, modification, and elimination strategies are studied.

## 3113 Retailing

(3-0) 3 hours credit. Prerequisite: MKT 3073.
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.

3133 Distribution
(3-0) 3 hours credit. Prerequisite: MKT 3073.
An examination of channels of distribution considering behavioral, social, and economic aspects of the distribution system. Also, the course explores such topics as franchising, logistics, power and conflict roles, and trends in distributive costs.

4023 Industrial Marketing (3-0) 3 hours credit. Prerequisite: MKT 3073.
Integrating the marketing concept in industrial situations. Emphasis is on the marketing problems associated with high technology products.

## 4043 Advertising Management

 (3-0) 3 hours credit. Prerequisite: MKT 3043.Emphasizes the management of advertising and the key decision variables supporting the advertising strategy process. Provides an examination of the nature and scope of advertising campaigns, including case histories. Also examines advertising goals, budget considerations, message and media factors, and the integration of these variables into an effective advertising strategy.

## 4073 International Marketing

(3-0) 3 hours credit. Prerequisite: MKT 3073.
Comparative analysis of cultural, legal, political, economic, and technological environments as they affect marketing strategy in the global marketplace. Focus is on understanding alternative market entry strategies as well as maintaining longer-term marketplace viability.

## 4093 Consumer Behavior

(3-0) 3 hours credit. Prerequisite: MK' 3073.
An interdisciplinary approach to the processes of purchase and consumption decisions from the standpoints of consumers, marketing managers, and public policy makers. Theories and methodologies are considered
from the perspectives of social sciences, including economics, psychology, sociology, and cultural anthropology.

## 4103 Current Topics in Marketing

(3-0) 3 hours credit. Prerequisite: MKT 3073.
Analysis of current trends in marketing problems and policies. Critical analysis of marketing; consideration of current developments in theory; activities of regulatory agencies; analysis of ethical, social, and public policy aspects of marketing changes. May be repeated for credit when topics vary.

## 4183 Advanced Market Research

(3-0) 3 hours credit. Prerequisite: MKT 3083.
A project-oriented course emphasizing application of the marketing research process. Includes problem formulation, determination of appropriate research design and methodology, data analysis and interpretation, and preparation and presentation of a research report.

4893 Marketing Strategy
(3-0) 3 hours credit. Prerequisites: MKT 3023, 3083, and 9 additional marketing hours.
Offers the opportunity for a comprehensive understanding of the functional areas of marketing and the integration of these functions into an effective marketing strategy.

## 4913 Independent Study

(3-0) 3 hours credit. Prerequisites: MKT 3023, 9 additional marketing hours, and permission in writing (form available) of 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 hours of independent study, regardless of discipline, will apply to a bachelor's degree.

## 4933 Internship in Marketing

(3-0) 3 hours credit. Prerequisites: MKT 3023, 9 additional marketing hours, and permission in writing (form available) of the instructor, the student's advisor, and the Division Director and Dean of the College in which this course is offered.
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. Internships may be repeated twice (a total of 6 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. Prerequisites: MKT 3023, 3083, 6 additional marketing hours, and consent of instructor and Division Director.
An 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 not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

## COLLEGE OF FINE ARTS

 \& HUMANITIES

# COLLEGE OF FINE ARTS AND HUMANITIES 

## DIVISION OF ART AND ARCHITECTURE

## BACHELOR OF FINE ARTS DEGREE IN ART

The Bachelor of Fine Arts (B.F.A.) degree program in Art is fully accredited by the National Association of Schools of Art and Design and conforms to their recommended guidelines. The degree is awarded in recognition of successful completion of prolonged and intensive studio course work 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.

Transfer students with upper-division art courses on their transcripts should present a portfolio of work to the Advisor of Record for art programs prior to 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 studies 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 132 semester credit hours, including the hours of the Core Curriculum requirements. Nine of the Core Curriculum requirements also count as part of the 90 required semester 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 are to 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. ${ }^{1}$

All candidates for the degree must complete 72 semester hours of art (ART) and 18 semester 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 by taking the following courses or their equivalents:

Rhetoric ( 6 semester hours)*

## Domain I: Science, Technology, and Mathematics

Mathematics (3 semester hours)*
Science (6 semester hours)*
Computer Science/Logic ( 3 semester hours)*

[^6]
## Domain II: Society and Culture

United States History and Diversity (6 semester hours)*
Political Studies (6 semester hours)*
Economics (3 semester hours)*
Social and Behavioral Sciences (incorporated in Domain IV)
Domain III: Literature, the Arts, and Language
Language (semester hours vary)*
Literature (incorporated in Domain IV)
The Arts (incorporated in Domain IV)

## Domain IV: Interdisciplinary Studies

Diversity of Thought ( 3 semester hours):
ART 3033 Contemporary Studio: Concepts and Practice
Diversity of Culture ( 6 semester hours):
either
AHC $\overline{1113}$ 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 $\frac{\text { or }}{1123}$ Survey of Art and Architecture in Europe and the New World from 1350 to 1750
AHC 1133 Survey of Modern Art
*Art students meet this section of the Core Curriculum in the same way as other UTSA students, as indicated in the description of the Core Curriculum in the Bachelor's Degree Regulations chapter of this catalog.

## Major requirements:

A. 39 semester hours of specifically required lower-division studio art and art history foundation courses are to be completed as part of the first 60 hours of the curriculum:

ART 1003 Design: Two Dimensional
ART 1013 Design: Three Dimensional
AHC 1113 Survey of Art and Architecture from Prehistoric Times to 1350
AHC 1123 Survey of Art and Architecture in Europe and the New World from 1350 to 1750
AHC 1133 Survey of Modern Art
ART 1213 Drawing I
ART 1223 Drawing II
ART 2113 Painting: Basic
ART 2213 Drawing: Figure
ART 2413 Printmaking: Basic
ART 2513 Photography: Basic
ART 2613 Sculpture: Basic
ART 2713 Ceramics: Basic
B. 24 semester hours of upper-division art courses:

ART 3033 Contemporary Studio
ART 4903 Senior Studio Problems
ART 4933 Bachelor of Fine Arts Exhibition
15 semester hours in one of the following areas: Ceramics, Drawing, Painting, Photography, Printmaking, or Sculpture
C. 9 additional semester 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 having 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 hours of ART course electives are required. At least 9 of these must be upper-division.

COURSE DESCRIPTIONS
ART
(ART)
NOTE: Due to the instructional format of studio/laboratory classes, auditors will not be approved for ART courses.

1003 Design: Two Dimensional (0-6) 3 hours credit.
Exploration of the visual structure and organization of two-dimensional surfaces using a variety of media, with an emphasis on the development of creative and critical skills. [TCCN: ARTS 1311.]

## 1013 Design: Three Dimensional

(0-6) 3 hours credit.
Exploration of the visual structure and organization of multidimensional forms in a variety of materials, with an emphasis on the development of creative and critical skills. [TCCN: ARTS 1312.]

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.

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.

## 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 35 mm cameras. May not be applied to a major in Art.

## 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.]

## 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. Prerequisites: ART 1003, 1013, 1213, and 1223; or ARC 1213, 1223, and ART 1213.
Introduction to photographic image making, technical principles, and laboratory procedures. Students are expected to provide their own adjustable 35 mm cameras. [TCCN: ARTS 2356.]

2613 Sculpture: Basic
(0-6) 3 hours credit. Prerequisites: ART 1003, 1013, 1213, and 1223.
Instruction in basic sculptural concepts and materials. [TCCN: ARTS 2326.]

2713 Ceramics: Basic
(0-6) 3 hours credit. Prerequisites: ART 1003, 1013, 1213, and 1223.
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 of the six 2000 -level art courses and any two art history and criticism courses.
Interdisciplinary studio projects generated from lectures, readings, and discussion, which focus on critical and cultural issues from the 1970s to
the present. Projects are intended to encourage collaborative efforts and non-traditional solutions. Required of all B.F.A. candidates.

## 3113 Painting: Intermediate

(0-6) 3 hours credit. Prerequisite: ART 2113.
Concepts and methods of painting, with an emphasis on the synthesis of idea and means. May be repeated once for credit.

4133 Painting
(0-6) 3 hours credit. Prerequisite: 6 credit hours in ART 3113.
An emphasis on the development of a personal vision and individual approach to the use of the medium. 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.

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.

4903 Senior Studio Problems
(0-6) 3 hours credit. Prerequisite: ART 3033, AHC 4113, and 9 upperdivision semester hours completed in area of specialization.
Presents advanced art concepts through individual class critiques and discussions of formal problems in art, using projects executed by the students in their areas of specialization. Required of all B.F.A. candidates. 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, 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 hours of independent study, regardless of discipline, will apply to a bachelor's degree.

## 4933 Bachelor of Fine Arts Exhibition

3 hours credit. Prerequisites: Approval of faculty member in student's area of specialization and Application for Degree.
With faculty supervision, the student will complete a body of work in the area of specialization representing the culmination of the course of studies for the B.F.A. degree. A selection of this work will be presented in an exhibition. Required of all B.F.A. degree candidates.

## 4953 Special Studies in Art

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 courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

## 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.

18 semester hours are required for this minor:
A. 6 semester hours, to be selected from the following:

AHC 1113 Survey of Art and Architecture from Prehistoric Times to 1350
AHC 1123 Survey of Art and Architecture in Europe and the New World from 1350 to 1750
AHC 1133 Survey of Modern Art
B. 12 semester hours, to be selected from the following:

AHC 3123 Northern European Art: Fifteenth and Sixteenth Centuries
AHC 3133 Southern European Art: Fifteenth and Sixteenth Centuries
AHC 3143 European Art: Seventeenth through Eighteenth Centuries
AHC 3223 Spanish Art
AHC 3373 European and United States Art: Twentieth Century
AHC 3423 Pre-Columbian Art and Architecture of Mesoamerica
AHC 3453 New World Hispanic Art and Architecture
AHC 4113 Contemporary Art
AHC 4333 Topics in Art History and Criticism
AHC 4423 Contemporary Art of Latin America

## COURSE DESCRIPTIONS ART HISTORY AND CRITICISM <br> (AHC)

1033 Masterworks in Art
(3-0) 3 hours credit.
A study of key works in art and architecture of Europe (1425-1825), ancient Mexico and Guatemala (before 1521), and modern Mexico (1920-1940). May not be applied to a major in Art. [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 until 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 until 1750. Course will include selected readings from related fields.

1133 Survey of Modern Art
(3-0) 3 hours credit.
A study of modern art from the French Revolution to the present, with special emphasis on contemporary developments. Course will include selected readings from related fields.

3123 Northern European Art: Fifteenth and Sixteenth Centuries
(3-0) 3 hours credit. Prerequisite: 3 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.

3133 Southern European Art: Fifteenth and Sixteenth Centuries
(3-0) 3 hours credit. Prerequisite: 3 hours of lower-division art history and criticism or completion of the Core Curriculum requirement in literature.
A study of painting, sculpture, and architecture in Southern Europe in the fifteenth and sixteenth centuries, with primary emphasis on Renaissance Italy.

3143 European Art: Seventeenth through Eighteenth Centuries
(3-0) 3 hours credit. Prerequisite: 3 hours of lower-division art history and criticism or completion of the Core Curriculum requirement in literature.
A study of the Baroque and Rococo art of Europe in the seventeenth and eighteenth centuries.

3223 Spanish Art
(3-0) 3 hours credit. Prerequisite: 3 hours of lower-division art history and criticism or completion of the Core Curriculum requirement in literature.
Art and architecture in the Iberian Peninsula, primarily from the seventh century to the nineteenth century.

3373 European and United States Art: Twentieth Century (3-0) 3 hours credit. Prerequisite: 3 hours of lower-division art history and criticism or completion of the Core Curriculum requirement in literature.
Painting, sculpture, and the graphic arts in Europe and the United States from 1900 to the present. (Credit cannot be earned for both AHC 3333 and AHC 3373.)

3423 Pre-Columbian Art and Architecture of Mesoamerica
(3-0) 3 hours credit. Prerequisite: 3 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.

3453 New World Hispanic Art and Architecture
(3-0) 3 hours credit. Prerequisite: 3 hours of lower-division art history and criticism or completion of the Core Curriculum requirement in literature.
A study of art and architecture of North and South America from the Colonial periods to the nineteenth century.

4113 Contemporary Art
(3-0) 3 hours credit. Prerequisite: 3 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 hours of lower-division art history and criticism or completion of the Core Curriculum requirement in literature.
Focus on a specific period, medium, or a theoretical and critical issue within the history and criticism of art. May be repeated for credit when topics vary.

4423 Contemporary Art of Latin America
(3-0) 3 hours credit. Prerequisite: 3 hours of lower-division art history and criticism or completion of the Core Curriculum requirement in literature.
Study of twentieth-century art in Latin America.

## 4913 Independent Study

3 hours credit. Prerequisites: Permission in writing (form available) of 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 direction of a faculty member. May be repeated for credit, but not more than 6 hours of independent study, regardless of discipline, will apply to a bachelor's degree.

## 4933 Art Gallery and Museum Internship

(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Supervised experience related to preparation and installation of exhibitions in gallery and museum settings.

## BACHELOR OF SCIENCE DEGREE IN ARCHITECTURE

The Bachelor of Science degree in Architecture is a four-year degree. The minimum number of semester hours required for the degree, including the hours of Core Curriculum requirements, is 138 .

All candidates for the degree must complete:
Core Curriculum requirements: Students seeking the Bachelor of Science degree in Architecture must fulfill University Core Curriculum requirements by taking the following courses or their equivalents:

## Rhetoric ( 6 semester hours)*

## Domain I: Science, Technology, and Mathematics

## Mathematics (4 semester hours):

MAT 1214 Calculus I
Science ( 8 semester hours):
PHY 1603, 1611 General Physics I and Laboratory
PHY 1623, 1631 General Physics II and Laboratory
Computer Science/Logic ( 3 semester hours)*

## Domain II: Society and Culture

United States History and Diversity (6 semester hours)*
Political Studies ( 6 semester hours)*
Economics (3 semester hours)*
Social and Behavioral Sciences (incorporated in Domain IV)

## Domain III: Literature, the Arts, and Language

Language (semester hours vary)*
Literature (incorporated in Domain IV)
The Arts (incorporated in Domain IV)

## Domain IV: Interdisciplinary Studies

Diversity of Thought ( 6 semester hours):
ARC 1423 Architecture and Thought
ARC 4513 Professional Practice and Ethics
Diversity of Culture ( 3 semester hours):
ARC 1413 Architecture and Culture
*Architecture students meet this section of the Core Curriculum in the same way as other UTSA students, as indicated in the description of the Core Curriculum in the Bachelor's Degree Regulations chapter of this catalog.

## Major requirements:

A. 90 semester hours in the major:

1. 36 semester hours of required lower-division architectural courses:

| ARC | 1213 | Architectural Design I* |
| :--- | :--- | :--- |
| ARC | 1223 | Architectural Design II* |
| ARC | 1313 | Visual Communications I |
| ARC | 1323 | Visual Communications II |
| ARC | 1413 | Architecture and Culture |
| ARC | 1423 | Architecture and Thought |
| ARC | 2113 | Architectural Design III* |
| ARC | 2123 | Architectural Design IV* |
| ARC | 2213 | Construction Materials and Concepts |
| ARC | 2223 | Structures I |
| ARC | 2413 | History of Architecture I |
| ARC | 2423 | History of Architecture II |

*Transfer students must obtain the approval of the Undergraduate Advisor of Record prior to enrolling in lower-division architectural design courses.
2. 27 semester hours of required upper-division architectural courses:

ARC 3113 Visual Communications III
ARC 3203 Housing and Land Development
ARC 3233 Structures II
ARC 3243 Structures III
ARC 3313 Environmental Control Systems I
ARC 3323 Environmental Control Systems II
ARC 3613 History of Modern Architecture
ARC 4313 Construction Graphics
ARC 4513 Professional Practice and Ethics
3. 3 hours of an approved upper-division architecture elective.
4. 24 semester hours of required upper-division courses, with a grade of " C " or above in each course:

18 semester hours of ARC 4146: Architectural Design Studio 6 semester hours of ARC 4246: Architectural System Studio

All students must obtain written approval prior to enrollment in any upper-division design studio.
B. Brochure Requirement:

Upon completion of the initial two semesters of ARC 4146: Architectural Design Studio with a grade of "C" or above, each student must obtain written authorization to enter the final two semesters of ARC 4146 and 4246. This is done by submitting a brochure that includes work from previous and current classes in design and visual communication. In addition, a student may include supplementary material that gives evidence of his or her design, graphic, and professional accomplishments.

If the Review Committee, after reviewing the brochure, does not accept the student into the final two semesters of ARC 4146 and 4246, the student may resubmit a brochure for the next review period.
C. 6 semester hours of approved electives.

## BACHELOR OF SCIENCE DEGREE IN INTERIOR DESIGN

The Bachelor of Science degree in Interior Design is a four-year degree. The minimum number of semester hours required for the degree, including the hours of Core Curriculum requirements, is 136 .

All candidates for the degree must complete:
Core Curriculum requirements: Students seeking the Bachelor of Science degree in Interior Design must fulfill University Core Curriculum requirements by taking the following courses or their equivalents:

## Rhetoric (6 semester hours)*

## Domain I: Science, Technology, and Mathematics

Mathematics (3 semester hours)*
Science (6 semester hours)*
Computer Science/Logic (3 semester hours)*

## Domain II: Society and Culture

United States History and Diversity (6 semester hours)*
Political Studies ( 6 semester hours)*
Economics (3 semester hours)*
Social and Behavioral Sciences (incorporated in Domain IV)

## Domain III: Literature, the Arts, and Language

Language (semester hours vary)*
Literature (incorporated in Domain IV)
The Arts (incorporated in Domain IV)

## Domain IV: Interdisciplinary Studies

Diversity of Thought ( 6 semester hours):
ARC 1423 Architecture and Thought
ARC 4513 Professional Practice and Ethics
Diversity of Culture ( 3 semester hours):
ARC 1413 Architecture and Culture
*Interior Design students meet this section of the Core Curriculum in the same way as other UTSA students, as indicated in the description of the Core Curriculum in the Bachelor's Degree Regulations chapter of this catalog.

## Major requirements:

A. 84 semester hours in the major:

1. 33 semester hours of required lower-division interior design courses:

ARC 1213 Architectural Design I*
ARC 1223 Architectural Design II*
ARC 1313 Visual Communications I
ARC 1323 Visual Communications II
ARC 1413 Architecture and Culture
ARC 1423 Architecture and Thought
ARC 2113 Architectural Design III*
ARC 2123 Architectural Design IV*
ARC 2213 Construction Materials and Concepts
ARC 2413 History of Architecture I
ARC 2423 History of Architecture II
*Transfer students must obtain the approval of the Undergraduate Advisor of Record prior to enrolling in lower-division architectural design courses.
2. 27 semester hours of required upper-division interior design courses:

ARC 3113 Visual Communications III
ARC 3143 Interior Materials I
ARC 3153 Interior Materials II
ARC 3213 History of Furniture
ARC 3313 Environmental Control Systems I
ARC 3613 History of Modern Architecture
ARC 4203 Interior Design Fundamentals
ARC 4313 Construction Graphics
ARC 4513 Professional Practice and Ethics
3. 24 semester hours of required upper-division courses, with a grade of "C" or above in each course:

18 semester hours of ARC 4166: Interior Design Studio
6 semester hours of ARC 4266: Interior Systems Studio
All students must obtain written approval prior to enrollment in any upper-division design studio.
B. 9 additional semester hours of required work:

## ARC 3013 Color and Light

6 hours of electives, to be selected from the following:
ARC 3123 Advanced Visual Communications
ARC 3333 Practicum
ARC 4143 Architecture Topics
ARC 4223 Computer Applications in Design
ARC 4233 Computer Projects
C. Brochure Requirement:

Upon completion of the initial two semesters of ARC 4166: Interior Design Studio with a grade of "C" or above, each student must obtain written authorization to enter the final two semesters of ARC 4166 and 4266. This is done by submitting a brochure that includes work from previous and current classes in design and visual communication. In addition, a student may include supplementary material that gives evidence of his or her design, graphic, and professional accomplishments.

If the Review Committee, after reviewing the brochure, does not accept the student into the final two semesters of ARC 4166 and 4266, the student may resubmit a brochure for the next review period.
D. 3 semester hours of approved electives.

## COURSE DESCRIPTIONS

ARCHITECTURAL DESIGN
(ARC)

## 1213 Architectural Design I

(0-6) 3 hours credit.
An introduction to the fundamentals of design, including color, composition, human scale, architectural space, and the use of drawings and models as tools for thinking. Concurrent enrollment with ARC 1313 is recommended. [TCCN: ARCH 1303.]

## 1223 Architectural Design II

(0-6) 3 hours credit. Prerequisite: ARC 1213.
An examination of the uses of geometry and proportion in design. Explores the complex relationships which exist between parts and the whole. Concurrent enrollment in ARC 1323 is recommended. [TCCN: ARCH 1304.]

## 1313 Visual Communications I

(0-6) 3 hours credit.
Introduction to visual perception and architectural graphic communication. Concurrent enrollment in ARC 1213 is recommended. [TCCN: ARCH 1307.]

## 1323 Visual Communications II

(0-6) 3 hours credit. Prerequisite: ARC 1313.
A continuation of ARC 1313, with an emphasis on refined technique and more complex drawing problems. Concurrent enrollment in ARC 1223 is recommended.

1413 Architecture and Culture (3-0) 3 hours credit.
Introduction to the ideas underlying architecture. Explores the sources of architecture in human cultural patterns and technology. Introduces the evolution and current state of architectural and interior design professions. (Formerly Architecture and Society.)

1423 Architecture and Thought
(3-0) 3 hours credit. Prerequisite: ARC 1413.
Examination of the relationships between architecture and works of literature and philosophy.

2113 Architectural Design III
(0-6) 3 hours credit. Prerequisites: ARC 1223, 1323, 1413, and 1423.
Introduction to the roles of function, structure, space, order, and site in architecture and interior design.

2123 Architectural Design IV
(0-6) 3 hours credit. Prerequisite: ARC 2113.
Continued study of the roles of function, structure, space, order, and site in architecture and interior design, with a focus on detailed articulation of space and form. Examines the role of meaning in design.

2213 Construction Materials and Concepts
(3-0) 3 hours credit. Prerequisites: ARC 1213 and 1313, or enrollment as a major in Management with a concentration in Building/Development.
The nature of materials and structural concepts used in the construction process.

## 2223 Structures I

(3-0) 3 hours credit. Prerequisites: ARC 2213, MAT 1214, and PHY 1611.

An introduction to architectural structures, including statics and strength of materials, with emphasis on wood and masonry design. (Formerly Construction II.)

## 2413 History of Architecture I

(3-0) 3 hours credit.
A survey of architecture from ancient history through 1750. [TCCN: ARCH 1301.]

## 2423 History of Architecture II

(3-0) 3 hours credit. Prerequisite: ARC 2413.
A survey of architecture from 1750 to the present. [TCCN: ARCH 1302.]

## 3013 Color and Light

(2-2) 3 hours credit.
Studies of color and light and their effect on the built environment.

## 3113 Visual Communications III

(0-6) 3 hours credit. Prerequisite: ARC 1323.
Development of visual perception and awareness of graphic techniques in the visual communication of design concepts and ideas in black and white and color.

3123 Advanced Visual Communications I
(0-6) 3 hours credit. Prerequisite: ARC 3113.
Advanced problems in graphics, computer graphics, and electronic media graphics.

3143 Interior Materials I
(3-0) 3 hours credit. Prerequisite: ARC 2123.
Study of materials used in interior spaces, and their selection, use, and care.

3153 Interior Materials II
(3-0) 3 hours credit. Prerequisite: ARC 3143.
A continued study of materials used in interior spaces, and their specifications and installation.

3203 Housing and Land Development
(3-0) 3 hours credit. Prerequisite: ARC 2123 or enrollment as a major in Management with a concentration in Building/Development.
Analysis of the purchase and development of land for residential uses. Residential and site design considerations in terms of codes, zoning ordinances, utility needs, and engineering problems are examined.

3213 History of Furniture
(3-0) 3 hours credit.
A history of periods of furniture design from antiquity to the present.

## 3233 Structures II

(3-0) 3 hours credit. Prerequisites: ARC 2123, 2223, and PHY 1623. Concepts and applications of structural design in structural steel and timber systems. (Formerly Construction III.)

3243 Structures III
(3-0) 3 hours credit. Prerequisite: ARC 3233.
The study of the design and behavior of structural concrete systems, including the application of building specifications. (Formerly Construction IV.)

3313 Environmental Control Systems I
(3-0) 3 hours credit. Prerequisite: ARC 2123,2213 , an equivalent, or enrollment as a major in Management with a concentration in Building/Development.
Acoustics and illumination and their integration into the total building design.

3323 Environmental Control Systems II (3-0) 3 hours credit. Prerequisite: ARC 3313.
Climate controls, mechanical and electrical systems, and their integration into building design.

## 3333 Practicum

(1-4) 3 hours credit. Prerequisites: ARC 2123 and 2213, or enrollment as a major in Management with a concentration in Building/Development.
Offers students majoring in Architecture, Interior Design, and Building/Development participation in a variety of design, development, and construction concerns. Students work 15-20 hours a week in an approved local office under interdisciplinary supervision.

## 3613 History of Modern Architecture

(3-0) 3 hours credit.
A study of modern architecture, its origin and technological and philosophical evolution, from the nineteenth century to the present.

4013 Building Construction Estimating
(3-0) 3 hours credit. Prerequisite: ARC 2223.
Introduction to estimating procedures related to quantity surveying and cost of materials and labor in light construction.

## 4113 Project Development

(1-4) 3 hours credit. Prerequisites: ARC 3203 and 4013 and enrollment as a major in Management with a concentration in Building/Development.
The application of building/development practices to architectural and planning projects.

4143 Architecture Topics
(3-0) 3 hours credit. Prerequisites: ARC 2123 and 2213.
A study of current trends and issues in the architecture and interior design professions. May be repeated for credit as topics vary.

4146 Architectural Design Studio
(1-10) 6 hours credit. Prerequisite: ARC 2123.
Examination of issues in architecture, with an emphasis on research and applications design. May be repeated for credit.

## 4153 Topics in International Architecture

(3-0) 3 hours credit. Prerequisites: ARC 2123 and 2213.
An examination of international current trends and issues in architecture and interior design.

4166 Interior Design Studio
(1-10) 6 hours credit. Prerequisite: ARC 2123.
The study of the process of research, programming, and developing physical design solutions to various interior types, including the integration of finishes, fixtures, and furnishings within the design. May be repeated for credit.

## 4203 Interior Design Fundamentals

(1-4) 3 hours credit. Prerequisite: ARC 3213.
A lecture studio course focusing on interior construction, millwork, and casework. (Formerly ARC 4213. Credit cannot be earned for both ARC 4203 and ARC 4213.)

## 4223 Computer Applications in Design

(2-2) 3 hours credit. Prerequisite: Upper-division standing.
The study of the computer as a mapping and design tool for the graphic display of spatially related data.

## 4233 Computer Projects in Design

(2-2) 3 hours credit. Prerequisite: Consent of instructor. Special projects in computer applications for advanced students.

## 4246 Architectural Systems Studio

(1-10) 6 hours credit. Prerequisites: ARC 3243, 3323, two semesters of 4146, and concurrent enrollment in 4313.
An architectural design studio which integrates the technological implications of construction. Students will be required to document the various structural, environmental, and material systems used on their design projects.

4266 Interior Systems Studio
(1-10) 6 hours credit. Prerequisites: ARC 3153, 3313, two semesters of 4166, and concurrent enrollment in 4313.
An interior design studio which integrates the technological implications of construction. Students will be required to document the various structural, environmental, and material systems used on their design projects.

## 4313 Construction Graphics

(0-6) 3 hours credit. Prerequisites: Two semesters of ARC 4146, or 4166, 3243 (for architecture majors), 3323, and 4166; concurrent enrollment in either ARC 4246 or 4266.
A study in the preparation of construction documents and their use in communication of design concepts among the architect, owner, contractor, and others. Students will be required to prepare detailed documentation of work produced.

4423 History and Theory of Urban Form
(3-0) 3 hours credit. Prerequisite: ARC 2123.
Concentrates on the origins of the contemporary city and emerging theories of urban design.

4513 Professional Practice and Ethics
(3-0) 3 hours credit. Prerequisite: ARC 2123.
A study of the standards of professional practice and ethics in the twentieth century.

## 4613 Construction Management

(3-0) 3 hours credit. Prerequisite: Upper-division standing.
The study of the management of the process of construction.

## 4911-3 Independent Study

1-3 hours credit. Prerequisite: Permission in writing (form available) of 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 hours of independent study, regardless of discipline, may apply to a bachelor's degree.

## 4953-6 Special Studies in Architecture

3-6 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 courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

## DIVISION OF ENGLISH, CLASSICS, AND PHILOSOPHY <br> BACHELOR OF ARTS DEGREE IN ENGLISH

The minimum number of semester hours required for this degree is 120 , including the hours of Core Curriculum requirements. Thirty-nine of the 120 total semester hours required for the degree must be at the upper-division level.'

ENG 2213 must be used to satisfy the Core Curriculum requirement in literature.
All candidates for the degree, except those completing the Technical Writing emphasis, must complete:
A. 30 semester hours in English (in addition to the 9 hours of composition and literature listed in the Core Curriculum Requirement), 21 of which must be at the upper-division level:

ENG 2223 Major British Writers I
ENG 2233 Major British Writers II
ENG 2263 Major American Writers
ENG 3223 Shakespeare: The Early Plays or
ENG 3233 Shakespeare: The Later Plays
ENG 4973 Seminar for English Majors
15 additional upper-division semester hours in English, at least 6 hours of which must be in literature.
B. 12 additional semester hours of approved support work in one of the following categories (at least 6 hours of which must be at the upper-division level):

1. Classics (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 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 hours in English).
6. American studies (AMS), anthropology (ANT), history (HIS), psychology (PSY), or sociology (SOC).
7. History and theory either of art or of 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 of Record.
[^7]Students who select a support category other than classics, philosophy, or humanities may apply 6 semester hours of upper-division literature courses in humanities or classics toward requirement A . of the English major.
C. 24 semester hours of electives.

## TECHNICAL WRITING EMPHASIS

ENG 2213 must be used to satisfy the Core Curriculum requirement in literature.

All candidates for the B.A. degree in English with a Technical Writing emphasis must complete:
A. 30 semester hours in English (in addition to the 6 hours of composition in the Core Curriculum requirements), 21 of which must be at the upper-division level:

ENG 2223 Major British Writers I
ENG 2233 Major British Writers II
ENG 2263 Major American Writers
ENG 3223 Shakespeare: The Early Plays
or
ENG 3233 Shakespeare: The Later Plays
ENG 4973 Seminar for English Majors
15 additional semester hours of English electives.
B. 36 semester hours of approved support work:

1. 30 hours of required support work:

| CS | 2033 | Fundamentals of Computer Concepts <br> or |
| :--- | :--- | :--- |
|  | CS | 2083 Microcomputer Applications |
| ECO | 2023 | Introductory Microeconomics |
| ENG | 2413 | Technical Writing |
| ENG | 2433 | Editing |
| ENG | 3313 | Advanced Composition |
| ENG | 4933 | Internship |
| MAT | 1033 | Algebra w/ Calculus for Business |
| MGT | 3013 | Introduction to Organization, Theory, Behavior, and |
|  |  | Management |

MGT 3043 Business Communication
STA 1063 Basic Statistics for Business and Economics
2. A minimum of 6 hours of support work, to be drawn from the following:

COM 1043 Introduction to Communication
ENG 3333 Introduction to the Structure of English
EGR 1203 Science, Technology, and Society
MAT 1093 Precalculus
PHI 2043 Introductory Logic
PHI 3033 Philosophy of Science

## MINOR IN ENGLISH LITERATURE

All students pursuing the minor in English Literature must complete 21 semester hours of English and American Literature:
A. 15 semester 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 |
|  | ENG | or |
|  | 3233 | Shakespeare: The Later Plays |

B. 6 additional upper-division hours of literature in English, 3 of which must include the study of American literature.

## HONORS IN ENGLISH

A student whose grade-point average in the English major (including support work) prior to the beginning of his or her final year at UT San Antonio is 3.2 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 Honors Committee and maintain a 3.2 grade-point average both in the major and in support work. The grade-point average requirements apply to all transfer work as well as work taken at The University of Texas at San Antonio.

## COURSE DESCRIPTIONS <br> ENGLISH <br> (ENG)

## 0101 Writing Review

(1-0) 1 hour credit.
Offers instruction and practice in composition and grammar, with emphasis upon such considerations as the writer's purpose, audience, tone, logical cohesion, and paragraph and thesis development. The course is offered on a credit/no-credit basis. Credit cannot be used to satisfy any degree requirements.

## 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. The course is offered on a credit/no-credit basis. Credit cannot be used to satisfy any degree requirements.

1003 Academic Writing
(3-0) 3 hours credit.
Introduces the techniques and practice of academic writing: the patterns of development, summary and paraphrase, and analysis and synthesis.

Includes library research and documentation, and critical reading of academic writing. Cannot be used to satisfy Core Curriculum requirements.

## 1013 Freshman Composition

(3-0) 3 hours credit.
Reviews principles of using sources for writing. Introduces 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. (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 an equivalent.
Extensive writing practice in the use of logical and organizational patterns, with emphasis on 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: ENG 1023 or an equivalent.
Introductory study of great works of literature with an emphasis on novels, plays, and poetry by British and American authors. Designed for non-majors.

## 2213 Literary Criticism and Analysis

(3-0) 3 hours credit. Prerequisite: ENG 1023 or an 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 work of major American writers. Required of students majoring in English.

## 2323 Creative Writing: Fiction

(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in literature.
Offers the opportunity for intensive practice and development of techniques in the writing of fiction.

2333 Creative Writing: Poetry
(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in literature.
Offers the opportunity for intensive practice and development of techniques in the writing of poetry.

2373 Literature for Children and Adolescents
(3-0) 3 hours credit. Prerequisite: 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 upon the novel.

2383 Minority Voices in American Literature
(3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent.
A survey of the literature of various minority groups such as Native American, African-American, and Hispanic. Designed for non-majors.

## 2413 Technical Writing

(3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent.
Techniques of expository writing, particularly adapted to students in technological and scientific subjects. [TCCN: ENGL 2311.]

2423 Literature of Texas and the Southwest
(3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent.
Study of the literature of Texas and the Southwest, including an examination of the region's multicultural heritage. Designed for nonmajors.

2433 Editing
(3-0) 3 hours credit. Prerequisite: ENG 2413 or an 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.

2613 Introduction to Literary Forms
(3-0) 3 hours credit. Prerequisite: ENG 1023 or an 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 non-majors.

3033 American Literature, 1945 to Present
(3-0) 3 hours credit. Prerequisite: ENG 2213 or 12 hours of English. Critical study of major American writers of the past three decades.

3053 American Literature to 1870
(3-0) 3 hours credit. Prerequisite: ENG 2213 or 12 hours of English. Study of major American writers before the late nineteenth century, such as Hawthorne, Melville, and Dickinson.

3063 American Literature, 1870-1945
(3-0) 3 hours credit. Prerequisite: ENG 2213 or 12 hours of English. Study of major American writers of the late nineteenth and early twentieth centuries, including Twain, Eliot, Hemingway, and Faulkner.

## 3113 Studies in Individual Authors

(3-0) 3 hours credit. Prerequisite: ENG 2213 or 12 hours of English. Study of the works of an individual British or American author or of several authors studied in relation to one another. May be repeated for credit when authors vary.

3123 Modern Fiction
(3-0) 3 hours credit. Prerequisite: ENG 2213 or 12 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 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 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 an 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 an 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 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 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 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 hours of English. Reading and discussion of representative American novels.

3273 Milton
(3-0) 3 hours credit. Prerequisite: ENG 2213 or 12 hours of English. Reading and analysis of Milton's major poems and selected prose in the context of his times.

## 3303 Composition for Professionals

(3-0) 3 hours credit. Prerequisite: ENG 2213 or 12 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 hours of English.
Study of the principles and procedures of expository and argumentative prose. Emphasis on coherence, liveliness, persuasiveness, and originality. Extensive writing practice.

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 such topics as semantics, pragmatics, and language change.

3393 Theory of Literature
(3-0) 3 hours credit. Prerequisite: ENG 2213 or 12 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 eamed for both ENG 3393 and HUM 2013.)

## 3413 Specialized Professional Writing

(3-0) 3 hours credit. Prerequisite: ENG 2413 or an equivalent. Writing for specialized purposes, e.g., 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 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 an 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 an equivalent. Selected readings in the fiction, poetry, and prose of the British Romantic period, with emphasis on Wordsworth, Coleridge, Byron, Keats, and Shelley.

4033 Literary Modes and Genres
(3-0) 3 hours credit. Prerequisite: ENG 2223, 2233, or an equivalent. Intensive study of a single mode or genre such as comedy, tragedy, allegory, satire, epic, or a type of non-fiction 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 an equivalent. Offers the opportunity for an intensive study of the 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 an 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 an equivalent.
Selected readings from major writers of the sixteenth and seventeenth centuries (excluding Shakespeare), with emphasis on writers such as Spenser, Donne, Jonson, Milton, and Marvell.

4143 Victorian Literature
(3-0) 3 hours credit. Prerequisite: ENG 2233 or an equivalent.
Selected readings in the fiction, poetry, and non-fiction 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.
$4423 \quad$ Studies in Advanced Linguistics
(3-0) 3 hours credit. Prerequisite: ENG 3343, LNG 3913, or an equivalent.
Specialized study of one or more areas of linguistic research, e.g., 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 their potential as fiction writers. May be repeated for credit, but not more than 12 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 their potential as poets. May be repeated for credit, but not more than 12 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 an equivalent.
Critical study of a topic in Mexican-American literature: author, genre, or theme.

4913 Independent Study
3 hours credit. Prerequisite: Permission in writing (form available) of 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 hours of independent study, regardless of discipline, will apply to a bachelor's degree.

## 4933 Internship

(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Supervised experience relevant to English. May be repeated once for credit, but no more than 3 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 courses may be repeated for credit when the topics vary,
but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

## 4973 Seminar for English Majors

(3-0) 3 hours credit. Prerequisite: ENG 2223 or an 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.

## 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 hours required for this degree is 120 , including the hours of the Core Curriculum requirements. Thirty-nine of the total semester hours required for the degree must be at the upper-division level.

All candidates for the degree must complete:
A. 42 semester hours:

1. 12 required semester 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 hours of historical-period courses to be selected from the following:

HUM 3023 The Medieval World
HUM 3033 The Renaissance Idea of Humanity
HUM 3043 Classicism and Enlightenment
HUM 3053 The Romantic Age
HUM 3063 The Modern World
3. 21 semester hours, which 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 of these must be at the upper-division level.

The student must take at least 3 semester hours in each of the following five areas:
classics (CLA);
philosophy (PHI);
humanities (HUM);
art history and criticism (AHC); or
literature in one of the following languages (including literature courses in translation, and culture and civilization courses): English, French, German, Hebrew, Italian, Spanish, or Russian.

The remaining 6 hours may be selected from these five areas or, with the approval of the Undergraduate Advisor of Record, may be selected from other relevant areas such as history, music history, or the social sciences.
B. 24 semester hours of electives.

## MINOR IN HUMANITIES

All students pursuing the minor in Humanities must complete 21 semester hours:
A. HUM 3013 History of Ideas
B. 9 semester 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 Art and Architecture I: Ancient Through Medieval

AHC 1123 Art and Architecture II: Renaissance Through Eighteenth Century
AHC 1133 Art and Architecture III: Nineteenth and Twentieth Centuries
C. 9 additional hours of upper-division coursework in humanities.

## HONORS IN HUMANITIES

A student whose grade-point average in the Humanities major prior to the beginning of his or her final year at UT San Antonio is 3.2 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 Honors Committee and maintain a 3.2 grade-point average in the major. The grade-point average requirements apply to all transfer work as well as work taken at The University of Texas at San Antonio.

## COURSE DESCRIPTIONS HUMANITIES (HUM)

## 1011 Topics in the Humanities

(1-0) 1 hour credit.
Introductory study of a topic or issue in the humanities. May be repeated for credit when topics vary.

3013 History of Ideas
(3-0) 3 hours credit. Prerequisite: ENG 1023 or an 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: ENG 1023 or an 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: ENG 1023 or an 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: ENG 1023 or an 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: ENG 1023 or an 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. Such figures as Rousseau, Kant, Wordsworth, Goethe, and Goya will be considered.

3063 The Modern World
(3-0) 3 hours credit. Prerequisite: ENG 1023 or an 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.

3093 World Religions
(3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent.
Examination of the origins, teachings, development, and philosophical foundations of the world's chief religious movements, including Hinduism, Buddhism, Shintoism, Confucianism, Taoism, Sikhism, Janism, Islam, Zoroastrianism, Judaism, and Christianity. (Formerly PHI 3063. Credit cannot be earned for both HUM 3093 and PHI 3063.)

3213 The Christian Classics
(3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent.
The opportunity for an intensive survey of selected works of such writers 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: ENG 1023 or an 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: ENG 1023 or an 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.

## 4913 Independent Study

3 hours credit. Prerequisite: Permission in writing (form available) of 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 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 courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

4973 Seminar for Humanities Majors
(3-0) 3 hours credit.
Undergraduate seminar limited to humanities majors in their senior year. Content varies with each instructor. May be repeated once for credit when topics vary.

## BACHELOR OF ARTS DEGREE IN PHILOSOPHY

The minimum number of semester hours required for this degree is 120 , including the hours of the Core Curriculum requirements. Thirty-nine of the total semester hours required for the degree must be at the upper-division level.

All candidates for the degree must complete:
A. 30 semester hours:

| PHI | 2013 | Basic Philosophical Problems |
| :--- | ---: | :--- |
| PHI | 2023 | Introduction to Ancient Philosophy |
| PHI | 2033 | Introduction to Modern Philosophy |
| PHI | 2043 | Introductory Logic |
| PHI | 3213 | Ethics |
| PHI | 3223 | Approaches to Knowledge and Reality |
| 12 additional upper-division semester hours of philosophy electives. |  |  |

B. 12 semester 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), classics (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.
C. 24 semester hours of electives.

## MINOR IN PHILOSOPHY

All students pursuing the minor in Philosophy must complete 21 semester hours:
A. 18 semester 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 hours in philosophy.

## HONORS IN PHILOSOPHY

A student whose grade-point average in the Philosophy major prior to the beginning of his or her final year at UT San Antonio is 3.2 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 Honors Committee and maintain a 3.2 grade-point average in the major. The grade-point average requirements apply to all transfer work as well as work taken at The University of Texas at San Antonio.

## COURSE DESCRIPTIONS PHILOSOPHY (PHI)

## 2013 Basic Philosophical Problems

(3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent.
Introduction to philosophy through general problems in metaphysics, epistemology, ethics, political philosophy, and philosophy of religion; emphasis on the writings of philosophers of various historical periods, especially as these doctrines apply to contemporary problems. [TCCN: PHIL 1301.]

2023 Introduction to Ancient Philosophy
(3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent. Introduction to ancient philosophy through the study of Plato, Aristotle, Epicurus, and others; emphasis on the Greek contribution to the moral and political ideas of the Western world. [TCCN: PHIL 2316.]

## 2033 Introduction to Modern Philosophy

(3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent.
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 man's attempt to achieve a satisfactory worldview. [TCCN: PHIL 2317.]

2043 Introductory Logic
(3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent.
Study of the principles of valid argument definition, deductive and inductive inference, and fallacies. [TCCN: PHIL 2303.]

2053 Business Ethics
(3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent.
Critical examination of interrelated social and ethical issues that arise from the conduct of business in contemporary society. Designed primarily for business majors.

2123 Moral Issues in Contemporary America
(3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent.
Examination of ethical issues facing American society, with emphasis on medical, social, and business ethics.

## 3013 Philosophy of Religion

 (3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent. Examination of traditional religious beliefs and such concepts as faith and knowledge, mysticism and theology, the existence and nature of God, and the relation of religion to experience and social life.3033 Philosophy of Science (3-0) 3 hours credit. Prerequisite: PHI 2013, 2043, or an equivalent. Examination of major issues in the philosophical foundations of the natural and social sciences, including scientific explanation, laws and theories, probability and induction, and the relation of scientific inquiry to the Western philosophical tradition.

3053 Philosophy of Art (3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent. Examination of major philosophical theories of art, beauty, and aesthetic judgment, with emphasis on such problems as form and structure, communication in art, and meaning in aesthetic judgment.

3073 Oriental Philosophy
(3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent.
Examination of the philosophical and religious traditions of the East, with emphasis on various schools such as Vedanta, Buddhism, Confucianism, and Taoism.

## 3213 Ethics

(3-0) 3 hours credit. Prerequisite: PHI 2013 or an equivalent.
Examination of ethical theory and of the nature and scope of ethical discourse, with emphasis on the concepts of good, human happiness, selfrealization, virtue, duty, responsibility, and the means-ends relationship; reading will include selected classical and contemporary texts.

3223 Approaches to Knowledge and Reality (3-0) 3 hours credit. Prerequisite: PHI 2013, 2043, or an 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.

## 3343 Issues in Contemporary Philosophy

(3-0) 3 hours credit. Prerequisite: PHI 2013 or an equivalent.
In-depth study of contemporary works, focusing on specific issues in one or more of the following areas: philosophy of language, philosophy of mind, logic, philosophy of religion, philosophy of science, epistemology, political philosophy, or ethics, including medical and legal ethics. May be repeated for credit when topics vary.

## 4013 Studies in Individual Philosophers

(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Examination of the works of an individual philosopher or of several philosophers studied in relationship to one another. May be repeated for credit when topics vary.

4113 Contemporary Analytic Philosophy
(3-0) 3 hours credit. Prerequisite: PHI 2013 or an 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 non-formal linguistic analysis.

## 4123 Contemporary Continental Philosophy

(3-0) 3 hours credit. Prerequisite: PHI 2013 or an equivalent.
A sustained treatment of the major trends in twentieth-century European philosophy, including movements such as phenomenology, existentialism, hermeneutics, and post-modernism; emphasis on historical development.

## 4333 Philosophy of Language

(3-0) 3 hours credit. Prerequisite: PHI 2013 or an equivalent.
A critical examination of traditional problems dealing with the nature and function of language. Representative issues include analyticity, reference, proper names, methaphorical meaning, and speech-act theory.

## 4913 Independent Study

3 hours credit. Prerequisite: Permission in writing (form available) of 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 hours of independent study, regardless of discipline, will apply to a bachelor's degree.

## 4953 Special Studies in Philosophy

 (3-0) 3 hours credit. Prerequisite: Consent of instructor.Organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

## MINOR IN CLASSICAL STUDIES

All students pursuing the minor in Classical Studies must complete 21 semester hours of Classics courses:
A. Successful completion of CLA 2113 or passage of an appropriate proficiency test.
B. 9 semester hours of required courses:

CLA 2013 Introduction to Ancient Greece
CLA 2023 Introduction to Ancient Rome
CLA 2033 Introduction to Classical Literature
C. 9 additional semester hours of upper-division coursework in classics.

# COURSE DESCRIPTIONS <br> CLASSICS <br> (CLA) 

1114 Introductory Latin I (4-0) 4 hours credit.
Fundamentals of Latin grammar and readings in Latin. (Formerly LAT 1114. Credit cannot be earned for both CLA 1114 and LAT 1114.) [TCCN: LATI 1411.]

1124 Introductory Latin II
(4-0) 4 hours credit. Prerequisite: CLA 1114.
Fundamentals of Latin grammar and readings in Latin. (Formerly LAT 1124. Credit cannot be earned for both CLA 1124 and LAT 1124.) [TCCN: LATI 1412.]

## 2013 Introduction to Ancient Greece

(3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent.
Introduction to the civilization and cultural achievements of ancient Greece, including highlights of history, religion, philosophy, literature, and art.

## 2023 Introduction to Ancient Rome

(3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent.
Introduction to the civilization and cultural achievements of ancient Rome, including highlights of history, religion, philosophy, literature, and art.

2033 Introduction to Classical Literature
(3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent.
Introductory study of selected works of ancient Greek and Roman authors, with emphasis on epic, drama, satire, and lyric.

2113 Intermediate Latin I
(3-0) 3 hours credit. Prerequisite: CLA 1124 or an equivalent.
Continued practice in reading Latin. Selections from Cicero, Sallust, Catullus, and/or Vergil. Review of Latin grammar and syntax. (Formerly LAT 2113. Credit cannot be earned for both CLA 2113 and LAT 2113.) [TCCN: LATI 2311.]

2123 Intermediate Latin II
(3-0) 3 hours credit. Prerequisite: CLA 2113 or an equivalent.
Reading and in-depth analysis of a particular Latin author such as Ovid, Vergil, Cicero, Lucretius, Petronius, or Plautus. (Formerly LAT 2123. Credit cannot be earned for both CLA 2123 and LAT 2123.) [TCCN: LATI 2312.]

3023 Classical Mythology
(3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent.
Critical survey of ancient Greek and Roman mythology, both religious and secular; attention to current theories of myth and to the use of myth in ancient literature.

## 3033 Homer and the Tragic Vision

(3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent. Critical study of the tragic literature of ancient Greece, with emphasis on the Iliad and the dramas of Aeschylus, Sophocles, and Euripides.

3043 Classical Comedy
(3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent.
Critical study of the comic literature of ancient Greece and Rome, with emphasis on the works of Aristophanes, Menander, Plautus, Terence, Petronius, and Apuleius.

3063 Topics in the Art and Architecture of the Classical World (3-0) 3 hours credit. Prerequisite: ENG 1023 or an 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.

3143 Rome and the Vision of Empire
(3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent.
Critical study of the literature of the Roman Empire. Selections will be drawn from the works of Cicero, Vergil, Ovid, Juvenal, Tacitus, and Petronius.

3623 Topics in Classical Literature
(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in literature.
Study of a genre or several genres drawn from the literature of ancient Greece and Rome, such as historiography, biography, lyric and pastoral poetry, and rhetoric and oratory. May be repeated for credit when topics vary.

## MINOR IN COMMUNICATION

All students pursuing the minor in Communication must complete 21 semester hours:
A. 9 semester hours of required courses:

COM 1043 Introduction to Communication
COM 3083 Language and Communication Theory
ENG 2413 Technical Writing
B. One of the following options:

1. 12 additional semester 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 hours of communication

6 semester hours of English courses to be selected from:

ENG 2433 Editing<br>ENG 3313 Advanced Composition<br>ENG 3413 Specialized Professional Writing

## COURSE DESCRIPTIONS <br> COMMUNICATION <br> (COM)

1043 Introduction to Communication
(3-0) 3 hours credit. Prerequisite: ENG 1013 or an equivalent.
Introduction to the fundamental processes of human communication, with emphasis on interpersonal, group, and mass communication. Practice in public speaking. [TCCN: SPCH 1311.]

## 2113 Public Speaking

(3-0) 3 hours credit. Prerequisite: COM 1043 or an equivalent.
Theory and practice of speaking in formal settings. Emphasis on preparation, adaptation, and delivery of oral presentations. [TCCN: SPCH 1315.]

## 2123 Oral Presentation

(3-0) 3 hours credit. Prerequisite: ENG 1013 or an equivalent.
Study of verbal and non-verbal 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.

2343 Introduction to Mass Communication
(3-0) 3 hours credit. Prerequisite: ENG 1013 or an equivalent.
Survey of mass communication media, including industry structures, distribution of information, and social and behavioral effects of programming. [TCCN: COMM 1307.]

2383 Relational Communication
(3-0) 3 hours credit. Prerequisite: COM 1043 or an equivalent.
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.

2733 Introduction to Communication Technologies (3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. Overview of media and networks used for entertainment and information distribution, storage, and retrieval. Emphasis on the interrelationships between technology, economics, policy, and social 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.]

3083 Language and Communication Theory
(3-0) 3 hours credit. Prerequisites: COM 1043 and ENG 1023, or their equivalents.
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 and ENG 1023, or their equivalents.
Offers the opportunity to train in the preparation, construction, and critical analysis of argumentation. Exercises in oral communication in adversarial situations.

## 3243 Persuasion

(3-0) 3 hours credit. 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.

3343 Mass Communication Processes and Effects
(3-0) 3 hours credit. Prerequisite: COM 2343 or an equivalent, and COM 3083.

Overview of theories of mass communication. Includes exploration of the precesses and effects of the media in public entertainment and information programming.

## 3523 Public Relations

(3-0) 3 hours credit. Prerequisite: COM 3083.
Introduction to principles and practices of public relations, with emphasis on strategies and execution of campaigns. Some attention to public relations within multicultural communities.

## 3573 International and Intercultural Communication

(3-0) 3 hours credit. Prerequisite: COM 3083.
Introduction to communicative difficulties arising from differences in cultural assumptions, policies, and practices. Emphasis on effects of the transmission of cultural values, and social, economic, and political implications of technology used across national boundaries.

## THEATER

(THR)

## 1013 Acting I

(3-0) 3 hours credit. Prerequisite: ENG 1013 or equivalent.
Fundamental techniques of acting, emphasizing the actor's approach to characterization and relationship to all parts of the play's production.

## 1023 Acting II

(3-0) 3 hours credit. Prerequisite: ENG 1013 or equivalent.
Sustained character portrayal. Intensive work in stage movement and vocal techniques, including dialects.

2013 Drama Production
(3-0) 3 hours credit. Prerequisite: ENG 1023 or equivalent.
Techniques and materials used in producing a play: directing, acting, lighting, stagecraft, make-up, costume, and management.

2023 Stage Direction
(3-0) 3 hours credit. Prerequisite: ENG 1023 or equivalent.
The techniques of stage direction, with a study of factors leading to completed production.

## 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 to 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 the above languages and also in Chinese, Hebrew, 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 course work 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.

## 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 hours at the upper division in the major ( 24 hours for Spanish), may petition the Undergraduate Advisor for Honors to enroll in the appropriate Honors courses SPN, FRN, or GER 4993: Honors Research. Upon completion of the course, if grade-point average minimums are still met, the Division Honors Committee will evaluate the project completed in the Honors course and determine whether the student will be awarded Honors in the Division.

## BACHELOR OF ARTS DEGREE IN FRENCH

The minimum number of semester hours required for this degree, including the hours of the Core Curriculum requirements, is 120 . Thirty-nine of the total semester 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. ${ }^{2}$

All candidates for the degree must complete:
A. 24 semester hours in the major, all of which must be at the upper-division level, as follows:

FRN 3023 Advanced Composition and Conversation
FRN 3413 French Literature and Culture until 1800
FRN 3423 French Literature and Culture since 1800
15 additional semester hours in French to be chosen in consultation with the student's advisor.

[^8]${ }^{2}$ Undergraduates seeking elementary teaching certification must complete the Interdisciplinary Studies degree.
B. 12 semester hours of support work, as follows:

1. 6 semester 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 |

2. 6 additional semester 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, to be chosen in consultation with the student's advisor.
C. 42 semester hours of electives.

## MINOR IN FRENCH

All students pursuing the minor in French must complete 18 semester hours:
A. 9 semester hours of required language skill courses:

1. Either

FRN 2013 Intermediate French I and
FRN 2023 Intermediate French II
or
FRN 2006 Intermediate French-Accelerated
2. FRN 3023 Advanced Composition and Conversation
B. 9 additional semester hours of upper-division French courses chosen in consultation with the advisor for the minor in French.

## COURSE DESCRIPTIONS <br> FRENCH <br> (FRN)

## 1008 Elementary French-Accelerated

 (6-4) 8 hours credit.A one-semester course offering the opportunity for developing listening, speaking, reading, and writing skills. Emphasis on listening and speaking. Introduction to French culture. (Credit for FRN 1008 is equivalent to credit for both FRN 1014 and FRN 1024.)

## 1014 Elementary French I

(3-2) 4 hours credit.
Fundamentals of French, offering the opportunity for developing 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, an equivalent, or an appropriate placement test score.
Fundamentals of French, offering the opportunity for developing listening, speaking, reading, and writing skills. Further study of French culture.
[TCCN: FREN 1412.]
2006 Intermediate French-Accelerated
(4-4) 6 hours credit. Prerequisite: FRN 1008, 1024, an equivalent, or an appropriate placement test score.
A one-semester course offering the continued opportunity for developing listening, speaking, reading, and writing skills. Grammar review and further study of French culture. (Credit for FRN 2006 is equivalent to credit for both FRN 2013 and FRN 2023.)

## 2013 Intermediate French I

(2-2) 3 hours credit. Prerequisite: FRN 1008, 1024, an 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.

## 2023 Intermediate French II

(2-2) 3 hours credit. Prerequisite: FRN 2013, an 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.

## 3013 French Phonetics and Pronunciation

(3-0) 3 hours credit. Prerequisite: FRN 2006, 2023, or consent of instructor.
Articulatory description of the sounds of standard French. Exercises in sound discrimination, pronunciation, intonation, and phonetic transcription. Attention to levels of usage and regional accents.

3023 Advanced Composition and Conversation
(3-0) 3 hours credit. Prerequisite: FRN 2006, 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.

3033 Advanced Grammar and Stylistics
(3-0) 3 hours credit. Prerequisite: FRN 2006, 2023, or consent of instructor.
An intensive study of selected complex features of morphology and syntax. Grammatical and stylistic analysis of literary and non-literary, formal and informal, language.

3053 Business French
(3-0) 3 hours credit. Prerequisite: FRN 2006, 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.

3333 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.

## 3413 French Literature and Culture until 1800

(3-0) 3 hours credit. Prerequisite: FRN 2006, 2023, or consent of instructor.
Selections from French literature, studied as reflections and interpretations of central moments 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 2006, 2023, or consent of instructor.
Selections from French literature, studied as reflections and interpretations of central moments 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 2006, 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 2006, 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.

## 4413 Genre Studies

(3-0) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in an upper-division French course, or consent of instructor.
Study of the history, characteristics, and major achievements in a particular French literary genre: novel, short narrative, lyric, drama, or film. May be repeated for credit when topics vary.

4613 Periods and Schools of French Literature
(3-0) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in an upper-division French course or consent of instructor.
Study of the major figures and the principal literary and cultural achievements of a single period: Middle Ages, Renaissance and Baroque,

Classicism, Enlightenment, Nineteenth Century, La Belle Epoque, or Twentieth Century. May be repeated for credit when topics vary.

## 4913 Independent Study

3 hours credit. Prerequisites: Permission in writing (form available) of 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 once for credit, but not more than 6 hours of independent study, regardless of discipline, will apply to a bachelor's degree. No more than 6 hours of FRN 4993 and/or FRN 4913 may be applied to the major in French.

4933 Internship in French
3 hours credit. Prerequisite: Permission of French Internship Coordinator. Supervised experience in a setting which provides the opportunity to integrate theory and practice in language usage. May be repeated once for credit.

## 4953 Special Studies in French

(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

## 4993 Honors Research

3 hours credit. Prerequisite: Consent of the Undergraduate Advisor of Record.
Supervised research and preparation of an honors thesis. May be repeated once for credit, with approval. No more than 6 hours of FRN 4993 and/or FRN 4913 may be applied to the major in French.

## BACHELOR OF ARTS DEGREE IN GERMAN

The minimum number of semester hours required for this degree, including the hours of the Core Curriculum requirements, is 120 . Thirty-nine of the total semester 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. ${ }^{1}$

All candidates for the degree must complete:
A. 24 semester hours in the major, all of which must be at the upper-division level, as follows:

GER 3023 Advanced Composition and Conversation
GER 3413 German Literature and Culture I: Middle Ages to 1700
GER 3423 German Literature and Culture II: 1700 to the Present

[^9]15 additional semester hours in German, to be chosen in consultation with the student's advisor.
B. 12 semester hours of support work, as follows:

1. CSH 1103 Literary Masterpieces of Western Culture I

CSH 1113 Literary Masterpieces of Western Culture II
2. CSH 2313 Introduction to Literary Studies

LNG 3813 Introduction to Linguistics
C. 42 semester hours of electives.

## MINOR IN GERMAN

All students pursuing the minor in German must complete 18 semester hours:
A. 9 semester hours of required language skill courses:

1. Either

GER 2013 Intermediate German I
and
GER 2023 Intermediate German II
or
GER 2006 Intermediate German-Accelerated
2. Either

GER 3023 Advanced Composition and Conversation or
GER 3053 Advanced German Grammar and Stylistics
B. 9 additional semester hours of upper-division German courses chosen in consultation with the advisor for the minor in German.

## COURSE DESCRIPTIONS

GERMAN
(GER)
1008 Elementary German-Accelerated (6-4) 8 hours credit.
A one-semester course offering the student the opportunity for developing listening, reading, speaking, and writing skills. Introduction to German culture. (Credit for GER 1008 is equivalent to credit for both GER 1014 and GER 1024.)

## 1014 Elementary German I

(3-2) 4 hours credit.
Fundamentals of German, offering the opportunity for developing 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, an equivalent, or an appropriate placement test score.
Fundamentals of German, offering the opportunity for further developing abilities in listening, reading, speaking, and writing skills. Further exposure to German culture. [TCCN: GERM 1412.]

## 2006 Intermediate German-Accelerated

(4-4) 6 hours credit. Prerequisite: GER 1008, 1024, an equivalent, or an appropriate placement test score.
A one-semester course offering the student continued opportunity for developing listening, reading, speaking, and writing skills. Further exposure to German culture. (Credit for GER 2006 is equivalent to credit for both GER 2013 and 2023.)

## 2013 Intermediate German I

(2-2) 3 hours credit. Prerequisite: GER 1008, 1024, an 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

(2-2) 3 hours credit. Prerequisite: GER 2013, an 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.]

3023 Advanced Composition and Conversation
(3-0) 3 hours credit. Prerequisite: GER 2006, 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 non-literary 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.

## 3333 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.

3413 German Literature and Culture I: Middle Ages to 1700
(3-0) 3 hours credit. Prerequisite: GER 2006, 2023, or consent of instructor.
Selected works from the medieval period to 1700 are studied as examples of central moments 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 2006, 2023, or consent of instructor.
Selected works from 1700 to the present are studied as examples of central moments in German culture and literary history. The course presents the shape of German civilization, emphasizing the major literary periods, styles, movements, and generations.

## 3513 Business German

(3-0) 3 hours credit. Prerequisite: GER 2023 or consent of instructor. Introduction to the basic context of the German 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 German business. Practice in translation on business-related topics.

4003 Topics in Periods of German Literature
(3-0) 3 hours credit. Prerequisite: GER 3413, 3423, or consent of instructor.
Focus on a selected period of German literature, from medieval through the twentieth century. Selected texts are studied as examples of representative moments 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 sub-genre 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, 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 2006, 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, 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 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 which 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 courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

4993 Honors Research
(3-0) 3 hours credit. Prerequisite: Consent of the Undergraduate Advisor of Record.
Supervised research and preparation of an honors thesis (See Division Honors requirements). May be repeated once for credit, with approval. No more than 6 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 hours required for this degree, including the hours of the Core Curriculum requirement, is 120. Thirty-nine of the total semester 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. ${ }^{1}$

[^10]All candidates for the degree must complete:
A. 33 semester hours in the major, all of which must be at the upper-division level, as follows:

1. 9 semester hours of required language courses (recommended for early completion):

SPN 3033 Oral Communication Skills
SPN 3043 Advanced Reading
SPN 3063 Grammar and Composition
2. 3 semester hours to be selected from the following:

SPN 3013 Spanish Phonetics and Pronunciation
SPN 3113 Linguistic Structures of Spanish
3. 12 semester hours as follows:

SPN 3313 Hispanic Literature I: Spain
SPN 3323 Hispanic Literature II: Spanish America
SPN 3613 Spanish Culture and Civilization
SPN 3623 Spanish-American Culture and Civilization
4. 9 semester hours of Spanish electives, 3 of which must be at the 4000 level.
B. 9 additional semester hours of coursework not taught in Spanish. These may be selected from the following in consultation with the Undergraduate Advisor, and may be from a single area or a combination: literature; culture; linguistics; foreign language (translation, cross-cultural communication, Reader's Theater, Study Abroad, etc.); or another foreign language.
C. 36 semester hours of electives.

## MINOR IN SPANISH

All students pursuing the minor in Spanish must complete 18 semester hours:
A. 12 semester hours of required language skill courses:

1. Either

SPN 2013 Intermediate Spanish I and
SPN 2023 Intermediate Spanish II
or
SPN 2006 Intermediate Spanish-Accelerated
$\begin{array}{lll}\text { 2. } & \text { SPN } & 3033 \\ \text { SPN } & 3063 & \text { Oral Communication Skills } \\ \text { Grammar and Composition }\end{array}$
B. 6 semester hours of upper-division Spanish courses, chosen in consultation with the advisor for the minor in Spanish. Additional study abroad is also encouraged.

## COURSE DESCRIPTIONS SPANISH <br> (SPN)

1008 Elementary Spanish—Accelerated (6-4) 8 hours credit.
A one-semester course offering the student the opportunity for developing 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 for developing 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, an equivalent, or an appropriate placement test score.
Fundamentals of Spanish, offering the opportunity for developing listening, speaking, reading, and writing skills. Emphasis on listening and speaking. Further study of Hispanic culture. [TCCN: SPAN 1412.]

2006 Intermediate Spanish—Accelerated
(4-4) 6 hours credit. Prerequisite: SPN 1008, 1024, an equivalent, or an appropriate placement test score.
A one-semester course offering the student continued opportunity for developing listening, speaking, reading, and writing skills. Includes grammar review 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
(3-2) 3 hours credit. Prerequisite: SPN 1008, 1024, an 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 2311.]

2023 Intermediate Spanish II
(3-2) 3 hours credit. Prerequisite: SPN 2013, an equivalent, or an appropriate placement test score.
Continued opportunity to develop listening, speaking, reading, and writing skills. Grammar review and further study of Hispanic culture. [TCCN: SPAN 2312.]

2103 Intermediate Conversation and Composition
(3-2) 3 hours credit. Prerequisite: SPN 2023, an equivalent, or an appropriate placement test score.
Emphasis on extended development of oral and written communication, especially for those students not yet at the Advanced Proficiency Level (Level 2 on the ACTFL-ETS proficiency scale). Intensive vocabulary expansion for a variety of situations and topics, including Hispanic culture.

2513 Spanish for Special Purposes
(3-2) 3 hours credit. Prerequisite: SPN 1008, 1024, an equivalent, or an appropriate placement test score.
Foreign language communication and cross-cultural skills relevant to one or more of the following areas: business, health care, law, education, science, or technology. May be repeated for credit when topics vary.

2523 Hispanic Culture and Communication
(3-2) 3 hours credit. Prerequisite: SPN 1008, 1024, an equivalent, or an appropriate placement test score.
A brief review of history, geography, worldview, and customs common in Latin America and Spain, with particular emphasis on Mexico and U.S. Hispanic culture. Use of some target culture source materials. Continued opportunity to develop oral and written communication in Spanish and to understand U.S. mainstream-Hispanic cross-cultural communication.

3013 Spanish Phonetics and Pronunciation
(3-1) 3 hours credit. Prerequisite: SPN 2103 or consent of instructor. Offers the opportunity for study of the sound system of Latin-American Spanish. Intensive patterned pronunciation drill, exercises in sound discrimination and transcription, and detailed articulatory description of various dialects of Spanish.

3033 Oral Communication Skills
(3-0) 3 hours credit. Prerequisite: SPN 2103 or a " 2 " on the Oral Proficiency Interview Test.
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.

## 3043 Advanced Reading

(3-0) 3 hours credit Prerequisite: SPN 2103 or a " 2 " on the Oral Proficiency Interview Test.
Extensive reading practice, comprehension strategies, and vocabulary building with material from a variety of disciplines and different types of texts.

## 3063 Grammar and Composition

(3-0) 3 hours credit. Prerequisite: SPN 2103 or consent of instructor. Offers the opportunity for extensive grammar review. Further development of writing skills through activities directed at the Advanced and Superior Levels on the ACTFL-ETS proficiency scale. Consideration of usage and differences between written and spoken language.

## 3113 Linguistic Structures of Spanish

(3-0) 3 hours credit. Prerequisite: SPN 3063 or consent of instructor. Offers the opportunity for application to Spanish of the basic principles of analysis and description of language structure. Attention given to structural regularities at the levels of word formation, syntax, and semantics.

## 3153 Spanish for the Business/Management Fields

(3-0) 3 hours credit. Prerequisite: SPN 2103 or consent of instructor. 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, banking, etc. Intended for students with some background in Spanish. May be repeated once for credit when topics vary.

## 3313 Hispanic Literature I: Spain

(3-0) 3 hours credit. Prerequisite: SPN 3043 or consent of instructor. The literature of Spain from the Middle Ages to the present. Readings of selections and complete works. Practice in critical analysis through class discussion, papers, and examinations.

3323 Hispanic Literature II: Spanish America
(3-0) 3 hours credit. Prerequisite: SPN 3043 or consent of instructor. The literature of Spanish America from Pre-Columbian times to the present. Reading of selections and complete works. Practice in critical analysis through class discussion, papers, and examinations.

3333 Hispanic Literature in English Translation
(3-0) 3 hours credit.
Major works in Hispanic literatures: themes, genres, and movements. May not be applied to a major in Spanish.

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.

3493 Mexican-American Literature
(3-0) 3 hours credit. Prerequisite: SPN 2103 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. The reflection in literature of cultural traditions, myths, values, and lifeview.

3623 Spanish-American Culture and Civilization (3-0) 3 hours credit. Prerequisite: SPN 3043.
The cultural life of the respective geographic regions and social strata of Spanish America from before the Conquest to the present, as reflected in and interpreted by its literature and arts.

## 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 Spanish America

(3-0) 3 hours credit. Prerequisite: SPN 3043.
Problems and conflicts determining the cultural development of contemporary Spanish America. Ethnic, social, political, economic, and cultural characteristics. Intellectual currents and the role of intellectual leaders in forming the cultural expression of Spanish America.

## 3673 Hispanic Cultural Systems

(3-0) 3 hours credit. Prerequisite: SPN 3043.
Aspects of everyday culture which affect interaction with native speakers of Spanish in the Hispanic world. Social norms, language styles, and cultural patterns of social interaction. Practice in using appropriate behavior and language in culturally complex situations.

4033 Advanced Oral Communication Skills
(3-0) 3 hours credit. Prerequisite: SPN 3033 or a " $2+$ " on the Oral Proficiency Interview Test.
Theory and practice of oral communication in formal settings. Focus on preparation, adaptation, and delivery. Emphasis on persuasive, dramaturgical, aesthetic, and forensic contexts. Applications of information theory and interpretive and motivational effects of language.

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.

413 Applied Spanish Linguistics
(3-0) 3 hours credit. Prerequisite: SPN 3013 or 3113.
Advanced study in and applications of Spanish linguistics, including two or more of the following areas: phonology, morphology, syntax, semantics, variability, and history of Spanish.

4123 The Spanish of the Mexican American
(3-0) 3 hours credit. Prerequisite: SPN 3013, 3113, or consent or instructor.
The analysis of the Spanish language as used by Mexican Americans in the Southwestern United States, from the perspectives of linguistics and sociolinguistics. 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 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 when topics vary.

## 4223 Twentieth-Century Spanish Literature

(3-0) 3 hours credit. Prerequisite: An upper-division course in literature 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 Spanish-American Literature
(3-0) 3 hours credit. Prerequisite: An upper-division course in literature in Spanish or consent of instructor.
An intensive study of Spanish-American literature from its eighteenthcentury ideological and vital roots through the Modernist movement. May be repeated when topics vary.

4243 Twentieth-Century Spanish-American Literature
(3-0) 3 hours credit. Prerequisite: An upper-division course in literature in Spanish or consent of instructor.
An intensive study of Spanish-American prose, poetry, and/or drama from Modernism to the present day. May be repeated for credit when topics vary.

4323 Cervantes' Don Quijote
(3-0) 3 hours credit. Prerequisite: An upper-division course in literature 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 Spanish America
(3-0) 3 hours credit. Prerequisite: An upper-division course in literature in Spanish or consent of instructor.
Representative works from the national literatures of Spanish 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 films and directors from Spain or Latin America. May be repeated for credit as regional areas vary.

## 4913 Independent Study

(3-0) 3 hours credit. Prerequisite: Permission in writing (form available) of 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 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
(3-0) 3 hours credit. Prerequisite: Permission of Division Director.
Supervised experience in a setting which 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 courses may be repeated for credit when the topics vary,
but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

Honors Research
(3-0) 3 hours credit. Prerequisite: Consent of the Undergraduate Advisor of Record.
Supervised research and preparation of an honors thesis. May be repeated once for credit with approval. No more than 6 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 a student, through his or her major, 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 enter a career in translation, teaching, publishing, or writing. A minor in Comparative Literature discourages parochialism and fosters the kind of sophistication that a degree in liberal arts is designed to recognize.

18 semester hours are required for this minor:
A. 12 hours of upper-division literature courses, selected from at least two of the following disciplines: Classics, English, French, German, Hebrew, Italian, Russian, or Spanish.
B. 6 hours of upper-division courses in comparative studies in the humanities:

CSH 3013 Theory and Practice of Comparative Literature 3 hours of an additional upper-division CSH literature 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 our cultural traditions. Situation of literary works in the context of the development of civilization.

## 1113 Literary Masterpieces of Western Culture II

(3-0) 3 hours credit.
Representative masterworks of Western literature in translation. An examination of major texts from the Renaissance to the present that have shaped and expressed our cultural traditions. Situation of literary works in the context of the development of civilization.

## 1203 Introduction to Hispanic Cultures

(3-0) 3 hours credit.
An overview of the cultures of Spain, Spanish America, and Hispanic groups in the United States, as revealed through their literatures and other forms of expression. Exploration of the unifying and diversifying elements in Hispanic civilization from its beginnings. All readings from English language or translated materials. May not be applied to the major in Spanish. [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 from English language or translated materials. May be repeated for credit when topics vary, but not more than 6 hours will apply to a bachelor's degree.

## 2113 The Foreign Film

(3-0) 3 hours credit.
An introduction to film as art and as cultural expression. Emphasis on cinematic techniques, national traditions, genres, and the distinctive features of film as a humanistic medium. May be repeated for credit when topics vary.

2313 Introduction to Literary Studies (3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent. Offers the opportunity for developing an awareness of literature and the skills with which to approach and understand it. Examination of individual national traditions and the interrelationship of all literary traditions. Emphasis on the nature of genre, period, and style. (Formerly CSH 3313. Credit cannot be earned for both CSH 2313 and CSH 3313).

3013 Theory and Practice of Comparative Literature (3-0) 3 hours credit.
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.

3113 Literary Genre, Period, Movement, or Motif (3-0) 3 hours credit.
Study from an international perspective of one or more of the following: a particular genre such as the novel, sonnet, or tragedy; period, such as Renaissance, Enlightenment, or Modern; movement, such as Romanticism, Surrealism, or Existentialism; or motif, such as Don Juan, Faust, or the quest. May be repeated for credit when topics vary.

3213 Comparison of Authors
(3-0) 3 hours credit.
Intensive study of two or more authors from different literary traditions, such as Shakespeare, Calderón, and Molière; Kafka, Borges, and Calvino; or Keats and Heine. May be repeated for credit when topics vary.

## 3313 Literature and the Other Arts

 (3-0) 3 hours credit.Analogies and distinctions between literature and another art or arts, including music, painting, photography, sculpture, and film. Case studies in comparison and transposition. May be repeated for credit when topics vary.

## 3713 Topics in Twentieth-Century Comparative Studies

 (3-0) 3 hours credit.Topics chosen from among authors, genres, themes, and movements of the twentieth century and studied from a perspective transcending national and linguistic boundaries.

## 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.

18 semester hours are required for this minor:
A. 6 semester hours of language skill courses:

## FL 2023 Culture and Communication in a Foreign Language or

SPN 2523 Hispanic Culture and Communication
3 additional semester hours in the same language at the 1024 level or above.
B. 12 additional semester hours of foreign languages courses, to be selected from the following:

FL 3003 Introduction to Translation
FL 3023 Translation for the Language Specialist
FL 3053 Readers' Theater
FL 4013 Cross-Cultural Communications and Foreign Languages
FL 4243 Foreign Language Instruction

## COURSE DESCRIPTIONS FOREIGN LANGUAGES <br> (FL)

## 1034 Beginning Language Study Abroad

(3-0) 3 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, Chinese, Hebrew, Italian, Japanese, and Russian.

## 1043 Individualized Instruction in Basic Language

(3-0) 3 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 6 semester credit hours in each language.

2023 Culture and Communication in a Foreign Language
(3-2) 3 hours credit. Prerequisite: 1008, 1024, an 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. Offered in French, German, Spanish, Italian, Japanese, and Russian.

2033 Intermediate Language Study Abroad
(3-0) 3 hours credit. Prerequisites: Consent of instructor and 1008, 1024, or an 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, Chinese, Hebrew, Italian, Japanese, and Russian.

## 2043 Individualized Instruction in Intermediate-level Language

(3-0) 3 hours credit. Prerequisites: Consent of instructor and 1008, 1024, or an equivalent in the selected foreign language.
Opportunity to develop intermediate-level oral and written communication skills in the target language, along with increased comprehension skills in listening and reading. Generally restricted to special projects or languages not regularly offered as organized classes. May be repeated up to 6 semester credit hours in each language.

## 3003 Introduction to Translation

(3-0) 3 hours credit. Prerequisites: At least four courses of any single foreign language.
Principles of translation, with practice in translating brief documents of a general nature. May be repeated for credit when language varies. (Formerly FL 2013. Credit cannot be eamed for both FL 3003 and FL 2013.)

## 3013 Translation for the Language Specialist

(3-0) 3 hours credit. Prerequisite: At least one course at the 3000 level in the selected foreign language.
The linguistic and cultural issues involved in the act of translation. Practice in translating documents from selected professional areas: business, health care, law, technology, or the arts. May be repeated for credit when topics/languages vary.

3033 Advanced Language Study Abroad
(3-0) 3 hours credit. Prerequisites: Consent of instructor and 2006, 2023, or an equivalent in the selected foreign language.
Opportunity to develop advanced-level oral and written communication skills in the target language, along with enhanced comprehension skills in listening and reading. Linguistic and cultural immersion. May be repeated up to 6 semester credit hours in each language. Offered in Spanish, German, French, Italian, Japanese, and Russian.

3043 Individualized Instruction in Advanced-level Language
(3-0) 3 hours credit. Prerequisites: Consent of instructor and 2006, 2023, or an 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.

3053 Readers' Theater
(3-0) 3 hours credit. Prerequisites: At least four courses of any single foreign language.
Performance as a function of foreign language study. Students will study, prepare, and perform up to three works in the target language. Offered in Spanish, French, German, Japanese, and Russian. May be repeated for credit when language varies.

## 4013 Cross-Cultural Communication and Foreign Languages

 (3-0) 3 hours credit.Study of cross-cultural communication research in specific language communities and its application to effective interaction with speakers of a variety of foreign languages. Selected applications and comparisons according to sociolinguistic norms, semantic variation, and non-verbal language, relevant to the most numerous language communities in the U.S. 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.

18 semester hours are required for this minor, at least 9 hours of which must be drawn from outside a student's major:
A. 3 semester hours, selected from the following:

ENG 3343 Principles of English Linguistics
LNG 3813 Introduction to Linguistics
ESL 3003 Applications of Linguistics
B. 3 semester hours taken in the linguistics of a particular language.
C. 6 semester hours, selected from psycholinguistics, anthropological linguistics, sociolinguistics, or historical linguistics.
D. 6 additional semester hours to be chosen in consultation with an advisor in one or more of the following approved areas, Anthropology, Bicultural-Bilingual Studies, English, French, German, and Spanish.

## COURSE DESCRIPTIONS <br> 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.
Societal patterns regarding language variation and their implications for language maintenance and shift. Degree of mutual interrelation between language and culture. The study of language in its social context. Language variation and linguistic change.

## 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.

3913 Topics in Linguistic Theory (3-0) 3 hours credit.
Focus on recent developments in linguistic theory. Topics may include current approaches to phonology, syntax, semantics, and pragmatics. May be repeated for credit when topics vary.

## MINOR IN RUSSIAN

All students pursuing the minor in Russian must complete 18 semester hours:
A. 6 hours of required language skill courses:

RUS 2013 Intermediate Russian I
RUS 2023 Intermediate Russian II
B. 12 additional semester hours of upper-division Russian courses, chosen in consultation with the advisor for the minor in Russian.

## COURSE DESCRIPTIONS <br> RUSSIAN <br> (RUS)

## 1014 Elementary Russian I

(3-2) 4 hours credit.
Fundamentals of Russian, offering the opportunity for developing 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, an equivalent, or an appropriate placement test score.
Fundamentals of Russian, offering the opportunity for further development of speaking, listening, reading, and writing skills. Further exposure to Russian culture. [TCCN: RUSS 1412.]

## 2013 Intermediate Russian I

(3-2) 3 hours credit. Prerequisite: RUS 1024, an 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
(3-2) 3 hours credit. Prerequisite: RUS 2013, an 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.]

3013 Interactive Reading and Writing
(3-0) 3 hours credit. Prerequisite: RUS 2013 or an equivalent.
An opportunity to enhance proficiency in handling various styles of Russian text. Readings from different types of text including contemporary media, authentic Russian readings, or selected literary texts. Readings are combined with interactive computer-based writing tasks. May be repeated for credit up to a maximum of 6 hours when type of text varies.

## 3033 Oral Communication Skills

(3-0) 3 hours credit. Prerequisite: RUS 2013 or an equivalent. Further development of speaking skills in a variety of contexts.

## 3143 Structure of Russian Language

(3-0) 3 hours credit. Prerequisite: RUS 2013 or an 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.

3333 Russian Literature in English Translation
(3-0) 3 hours credit.
Major works of Russian literature across time, genres, and movements.
3423 Russian Media
(3-0) 3 hours credit. Prerequisite: RUS 2013 or an equivalent.
A study of various aspects of Russian broadcast media. Development of listening skills through extensive exposure to a variety of styles of spoken language.

3613 Russian Culture I
(3-0) 3 hours credit. Prerequisite: RUS 2013 or an equivalent.
Further development of proficiency by content-based instruction. Topics include political geography, nationalities, languages, family life, religion, educational system, and introduction to Russian history.

3623 Russian Culture II
(3-0) 3 hours credit. Prerequisite: RUS 2013 or an equivalent.
Further development of proficiency by content-based instruction. Topics include classical and folk music, poetry, folk tales, short stories, art, and films.

4013 Russian for International Relations
(3-0) 3 hours credit. Prerequisite: Completion of 3 upper-division hours in Russian.
Designed with an international focus to enhance the speaking skills of students wanting to study or travel in Russian-speaking countries. Also suitable for students who want to combine their Russian skills with other interest areas, such as business, sciences, or humanities. May be repeated for credit when topics vary.

4133 Readings in Russian Literature
(3-0) 3 hours credit. Prerequisite: Completion of 3 upper-division hours in Russian.
A comprehensive and text-based approach to introduce the student to reading Russian prose. Excerpts from nineteenth- and twentieth-century literature will be used.

# COURSE DESCRIPTIONS CHINESE (CHN) 

## 1014 Elementary Chinese I

(3-2) 4 hours credit.
Fundamentals of Chinese, offering the opportunity for developing listening, speaking, reading, and writing skills. Emphasis on listening and speaking. Introduction to Chinese culture. [TCCN: CHIN 1411.]

1024 Elementary Chinese II
(3-2) 4 hours credit. Prerequisite: CHN 1014, an equivalent, or an appropriate placement test score.
Fundamentals of Chinese, offering the opportunity for developing listening, speaking, reading, and writing skills. Emphasis on listening and speaking. Further study of Chinese culture. [TCCN: CHIN 1412.]

2013 Intermediate Chinese I
(3-2) 3 hours credit. Prerequisite: CHN 1024, an equivalent, or an appropriate placement test score.
Continued opportunity to develop listening, reading, speaking, and writing skills. Continued exposure to the target culture. Grammar review.

2023 Intermediate Chinese II
(3-2) 3 hours credit. Prerequisite: CHN 2013, an equivalent, or an appropriate placement test score.
Continued opportunity to develop listening, reading, speaking, and writing skills. Continued exposure to the target culture. Grammar review.

## COURSE DESCRIPTIONS <br> HEBREW <br> (HBR)

1014 Elementary Hebrew I
(3-2) 4 hours credit.
Fundamentals of Hebrew, offering the opportunity for developing listening, speaking, reading, and writing skills. Emphasis on understanding and speaking. Introduction to the target culture.

1024 Elementary Hebrew II
(3-2) 4 hours credit. Prerequisite: HBR 1014, an equivalent, or an appropriate placement test score.
Fundamentals of Hebrew, offering the opportunity for developing listening, speaking, reading, and writing skills. Emphasis on understanding and speaking. Further exposure to the target culture.

2013 Intermediate Hebrew I
(2-2) 3 hours credit. Prerequisite: HBR 1024, an equivalent, or an appropriate placement test score.
Continued opportunity to develop listening, reading, speaking, and writing skills. Continued exposure to the target culture.

2013 Intermediate Italian I
(3-2) 3 hours credit. Prerequisite: ITL 1024, an equivalent, or an appropriate placement test score.
Continued practice in developing listening, speaking, reading, and writing skills. Grammar review and further study of Italian culture.

## 2023 Intermediate Italian II

(3-2) 3 hours credit. Prerequisite: ITL 2013, an equivalent, or an appropriate placement test score.
Continued practice in developing listening, speaking, reading, and writing skills. Grammar review and further study of Italian culture.

3333 Italian Literature in English Translation (3-0) 3 hours credit.
Major works of Italian literature across time, genres, and movements.

## COURSE DESCRIPTIONS <br> JAPANESE (JPN)

## 1014 Elementary Japanese I

(3-2) 4 hours credit.
Fundamentals of Japanese, offering the opportunity for developing 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, an equivalent, or an 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

(3-2) 3 hours credit. Prerequisite: JPN 1024, an equivalent, or an 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.

## 2023 Intermediate Japanese II

(3-2) 3 hours credit. Prerequisite: JPN 2013, an equivalent, or an 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.

## 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 three concentrations: all-level instrumental, all-level choral, or secondary choral. The Division also offers a minor in Music.

Students entering the Bachelor of Music in Music Studies program may be required to satisfy additional requirements as prescribed by the Texas Education Agency. Students 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 are used as an aid in counseling.

Auditions are required of all music majors for placement into ensembles.

## HONORS IN MUSIC

A student may be awarded Honors in Music in special recognition of outstanding achievement in his or her area of specialization. To qualify for the award, the student must have an overall university GPA of at least 3.0; a GPA of at least 3.5 in music courses; and successfully complete MUS 4983: Honors Seminar, including a lecture or lecture-recital appearance in which seminar research is presented.

## BACHELOR OF MUSIC DEGREE

The minimum number of semester hours required for this degree, including the UTSA Core Curriculum requirements, is 128 in the Music Performance and Composition emphases, 135 in the Music Marketing emphasis, and 132 in the Music Studies emphasis. ${ }^{1}$

Thirty-nine of the total semester hours required for the degree must be at the upper-division level. 30 semester hours of music courses must be at the upperdivision level.

Core Curriculum requirements: Students seeking the Bachelor of Music degree must fulfill University Core Curriculum requirements by taking the following courses or their equivalents:

## Rhetoric (6 semester hours)*

Domain I: Science, Technology, and Mathematics
Mathematics (3 semester hours)*
Science (6 semester hours)*

[^11]Computer Science/Logic ( 3 semester hours):
MUS 3313 Microcomputer Applications in Music

## Domain II: Society and Culture

United States History and Diversity ( 6 semester hours)*
Political Studies ( 6 semester hours)*
Economics ( 3 semester hours)*
Social and Behavioral Sciences (incorporated in Domain IV)
Domain III: Literature, the Arts, and Language
Language (semester hours vary)*
Literature (incorporated in Domain IV)
The Arts (incorporated in Domain IV)

## Domain IV: Interdisciplinary Studies

Diversity of Thought ( 3 semester hours):
MUS 3413 Foundations of Music
Diversity of Culture ( 6 semester hours):
MUS 3213 Music in Civilization I
MUS 3223 Music in Civilization II
*Music students meet this section of the Core Curriculum in the same way as other UTSA students, as indicated in the description of the Core Curriculum in the Bachelor's Degree Regulations chapter of this catalog.

## Major requirements:

All candidates for the Bachelor of Music degree, regardless of emphasis, must complete the following 38 semester 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 | 1251 | Basic Repertoire |
| 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 | 2253 | Introduction to Music Literature |
| MUS | 2403 | Conducting I |
| MUS | 3113 | Analysis I |
| 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
(a) to make one recital appearance during the last semester of required study on their principal instrument;
(b) to perform in an assigned University ensemble each semester while enrolled in courses as a music major (each student must enroll in an ensemble a minimum of eight semesters, excepting a term of enrollment in student teaching; specific requirements for degree emphases are outlined in the Division of Music Student Handbook);
(c) 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); and
(d) 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 appearance each semester on their principal instrument.

Listening Examinations are required for students who specify classical guitar as their principal instrument and for students who specify composition as their degree emphasis. Details regarding Listening Examinations are available in the Division of Music Handbook.

In addition, a candidate for the Bachelor of Music degree must complete the course requirements for the emphasis declared by the candidate.

## MUSIC PERFORMANCE EMPHASIS

A. 26 semester hours of music performance are required from the following courses, some of which may be repeated for credit. Students must satisfy either the Keyboard Principal Instrument requirements or the Non-Keyboard Principal Instrument requirements.

Keyboard Principal Instrument:

1. Principal Instrument:

MUS 1542 Music Performance-Private Instruction I (2 semesters)
MUS 2542 Music Performance-Private Instruction II (2 semesters)
MUS 3543 Music Performance-Private Instruction IV (2 semesters)
MUS 4544 Music Performance-Private Instruction V (2 semesters)
2. Secondary Instrument( $s$ ):

MUS 1552 Functional Piano for Keyboard Principals
2 semester hours from the following:

| MUS | 1511 | Music Performance-Secondary Instrument |
| :--- | :--- | :--- |
| MUS | 1531 | Class Voice |
| MUS | 1542 | Music Performance-Private Instruction I |

## Non-Keyboard Principal Instrument:

1. Principal Instrument:

MUS 1542 Music Performance-Private Instruction I (2 semesters)
MUS 2542 Music Performance-Private Instruction II (2 semesters)
MUS 3543 Music Performance-Private Instruction IV (2 semesters)
MUS 4544 Music Performance-Private Instruction V (2 semesters)
2. Secondary Instrument(s):

MUS 1532 Functional Piano for Non-Keyboard Principals 2 semester hours from the following:

| MUS | 1511 | Music Performance-Secondary Instrument |
| :--- | :--- | :--- |
| MUS | 1522 | Class Piano |
| MUS | 1531 | Class Voice |
| MUS | 1542 | Music Performance-Private Instruction I |

B. 6 semester hours of music theory, to be selected from the following courses:

MUS 3133 Analysis II
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 hours of music literature (MUS 3252). Topics may include:

Advanced Studies in Music Literature and Analysis
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 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 hours of MUS 4532: Music Pedagogy.
F. Voice principals are required to complete 4 semester hours of diction. MUS 3511: Diction for Singers may be repeated for credit to fulfill this requirement.
G. Free electives are required depending upon principal instrument:

11 semester hours for piano principals,
11 semester hours for voice principals,
15 semester hours for other music performance principals.
H. A qualifying recital approximately 30 minutes in length must be presented and approved by the appropriate Qualifying Recital Committee before the student can be approved as a major in Music Performance at the upper-division level. A senior recital (MUS 4561) approximately one hour in length must be presented and approved by the appropriate Recital Committee.

## COMPOSITION EMPHASIS

A. 16 semester hours of music performance courses are required from the following courses, some of which may be repeated for credit. Students must satisfy either the Keyboard Principal Instrument requirements or the NonKeyboard Principal Instrument requirements.

## Keyboard Principal Instrument:

1. Principal Instrument:

| MUS | 1542 | Music Performance--Private Instruction I (2 semesters) |
| :--- | :--- | :--- |
| MUS | 2542 | Music Performance-Private Instruction II (2 semesters) |
| MUS | 3532 | Music Performance-Private Instruction III (2 semesters) |

2. Secondary Instrument(s):

MUS 1552 Functional Piano for Keyboard Principals
2 semester hours from the following:

| MUS | 1511 | Music Performance-Secondary Instrument |
| :--- | :--- | :--- |
| MUS | 1531 | Class Voice |
| MUS | 1542 | Music Performance—Private Instruction I |

## Non-Keyboard Principal Instrument:

1. Principal Instrument:

MUS 1542 Music Performance—Private Instruction I (2 semesters)
MUS 2542 Music Performance-Private Instruction II (2 semesters)
MUS 3532 Music Performance-Private Instruction III (2 semesters)
2. Secondary Instrument(s):

MUS 1532 Functional Piano for Non-Keyboard Principals 2 semester hours from the following:

| MUS | 1511 | Music Performance-Secondary Instrument |
| :--- | :--- | :--- |
| MUS | 1522 | Class Piano |
| MUS | 1531 | Class Voice |
| MUS | 1542 | Music Performance-Private Instruction I |

B. 15 additional required semester hours of music theory and composition:

MUS 2142 Composition I
MUS 3133 Analysis II
MUS 3143 Orchestration

MUS 3162 Composition II
MUS 4113 Composition with Contrapuntal Techniques
MUS 4142 Composition III
C. 4 semester hours of MUS 3252: Advanced Studies in Music Literature and Analysis are required in the following topics:

Music Since 1950
Advanced Analytical Techniques
D. 3 semester hours of MUS 3123: Introduction to Synthesizers and Music.
E. 15 semester hours of electives.
F. Students electing the Composition emphasis must interview with the Composition Committee for approval to pursue the Composition emphasis at the upperdivision level. MUS 4561: Senior Recital is required of all students in the Composition emphasis.
G. The student's Senior Recital (MUS 4561) 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 prior to that of the recital. The examining committee shall determine the acceptability of the recital program.

## MUSIC MARKETING EMPHASIS

A. 16 semester hours of music performance courses are required from the following courses, some of which may be repeated for credit. Students must satisfy either the Keyboard Principal Instrument requirements or the NonKeyboard Principal Instrument requirements.

## Keyboard Principal Instrument:

1. Principal Instrument:

MUS 1542 Music Performance-Private Instruction I (2 semesters)
MUS 2542 Music Performance-Private Instruction II (2 semesters)
MUS 3532 Music Performance-Private Instruction III ( 2 semesters)
2. Secondary Instrument( $s$ ):

MUS 1552 Functional Piano for Keyboard Principals
2 semester hours from the following:

| MUS | 1511 | Music Performance-Secondary Instrument |
| :--- | :--- | :--- |
| MUS | 1531 | Class Voice |
| MUS | 1542 | Music Performance-Private Instruction I |

## Non-Keyboard Principal Instrument:

1. Principal Instrument:

MUS 1542 Music Performance-Private Instruction I (2 semesters)
MUS 2542 Music Performance-Private Instruction II ( 2 semesters)
MUS 3532 Music Performance-Private Instruction III ( 2 semesters)
2. Secondary Instrument(s):

MUS 1532 Functional Piano for Non-Keyboard Principals
2 semester hours from the following:

| MUS | 1511 | Music Performance-Secondary Instrument |
| :--- | :--- | :--- |
| MUS | 1522 | Class Piano |
| MUS | 1531 | Class Voice |
| MUS | 1542 | Music Performance-Private Instruction I |

B. 6 additional required semester hours:

MUS 3613 Music in Contemporary Life
MUS 4803 Seminar in Music Marketing
C. 33 semester hours of required support work:

ACC 2013 Accounting Principles I
ACC 2033 Accounting Principles II
BLW 3013 Business Law
IS 3003 Principles of Information Systems for Mgmt.
ECO 2013 Introductory Macroeconomics
ECO 2023 Introductory Microeconomics
FIN 3013 The Finance Function
MGT 3013 Introduction to Organization Theory, Behavior, and Management
MGT 3023 Organizational Behavior
MKT 3013 Principles of Marketing
MKT 4933 Internship in Marketing
D. 6 additional semester hours of music or music marketing, to be 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 3113 Retailing
MKT 4093 Consumer Behavior
MKT 4103 Current Topics in Marketing
E. Students electing the Music Marketing emphasis must interview with the Music Marketing Committee for approval to pursue the Music Marketing emphasis at the upper-division level.

## MUSIC STUDIES EMPHASIS

A. All candidates for the Bachelor of Music in Music Studies, regardless of concentration, must complete the following 12 hours of private instruction in a principal instrument:

MUS 1542 Music Performance--Private Instruction I (2 semesters)
MUS 2542 Music Performance--Private Instruction II ( 2 semesters)
MUS 3532 Music Performance--Private Instruction III (2 semesters)
B. 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 Handbook).
C. 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.
D. Students of the Music Studies emphasis must successfully complete competency tests related to certification as specified by the Texas Education Agency.
E. Students seeking teacher certification with choral concentration must pass a juried vocal proficiency examination. Students who specify classical guitar as their principal instrument must pass a Classical Guitar Listening Examination.

Details regarding the following track requirements are available in the Division of Music Handbook.

## TRACK I: ALL-LEVEL INSTRUMENTAL MUSIC (GRADES K-12)

A. 16 semester hours in music:

1. 12 semester hours of required music courses:

| MUS | 2413 | Conducting II |
| :--- | :--- | :--- |
| MUS | 3252 | Advanced Studies in Music Literature and Analysis (Wind |
| MUS | 3401 | Literature topic) |
| Brass Instruments |  |  |
| MUS | 3451 | Woodwind Instruments |
| MUS | 3471 | String Instruments |
| MUS | 3481 | Percussion Instruments |
| MUS | 4453 | The Marching Band |

Students with a string instrument as their principal instrument should consult with the Coordinator of Music Studies or the Undergraduate Advisor of Record to determine the approved substitutions for these courses.
2. 4 semester hours of additional music performance study:

| MUS | 1532 | Functional Piano for Non-Keyboard Principals <br> MUS |
| :--- | :--- | :--- |
| 4532 | Music Pedagogy |  |

B. 18 semester 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 hours in a state-mandated reading course. For specific required courses, consult the Coordinator of Music Studies.

## TRACK II: ALL-LEVEL CHORAL MUSIC (GRADES K-12)

A. 16 semester hours in music:

1. 12 semester hours of required music courses:

MUS 2413 Conducting II
MUS 3252 Advanced Studies in Music Literature and Analysis (Choral Literature topic)
MUS 3453 Music Studies I
MUS 3463 Music Studies II
MUS 3501 Diction Survey
2. 4 semester hours of additional music performance study:

MUS 1532 Functional Piano for Non-Keyboard Principals or
MUS 1552 Functional Piano for Keyboard Principals
MUS 4532 Music Pedagogy (vocal topic)
B. 18 semester 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 hours in a state-mandated reading course. For specific required courses, consult the Coordinator of Music Studies.

## TRACK III: SECONDARY CHORAL MUSIC (GRADES 6-12)

A. 16 semester hours in music:

1. 12 semester hours of required music courses:

MUS 2413 Conducting II
MUS 3252 Advanced Studies in Music Literature and Analysis (Choral Literature topic)
MUS 3463 Music Studies II
MUS 3501 Diction Survey
MUS 3543 Private Instruction Conducting
2. 4 semester hours of additional music performance study:

$$
\begin{array}{lll}
\text { MUS } & 1532 & \text { Functional Piano for Non-Keyboard Principals } \\
& \text { MUS } & \text { or } \\
& 1552 \quad \text { Functional Piano for Keyboard Principals } \\
\text { MUS } & 4532 & \text { Music Pedagogy (vocal topic) }
\end{array}
$$

B. 18 semester 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 hours in a state-mandated reading course. For specific required courses, consult the Coordinator of Music Studies.

## MINOR IN MUSIC

All students pursuing the minor in Music must complete 21 semester hours:
A. 8 semester 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 hours of lower-division music studies, to be selected from the following:

MUS 1522 Class Piano
MUS 1531 Class Voice
MUS 2253 Introduction to Music Literature
MUS 2403 Conducting I
MUS 2603 Class Guitar
MUS 2613 Intermediate Guitar
MUS 2653 Masterpieces of Music
MUS 2663 History and Styles of Jazz
MUS 2673 History and Styles of Rock
C. 6 semester hours of upper-division music studies, to be 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. Music Ensemble (as assigned): 2 semesters (a minimum of 2 semester credit hours).
E. 2 semester hours of MUS 2001: Concert Music.

## COURSE DESCRIPTIONS <br> MUSIC <br> (MUS)

## 1102 Aural Skills I

(2-1) 2 hours credit.
Offers the opportunity for training in sight singing, aural skills, and keyboard application. Should be taken concurrently with MUS 1112.

## 1112 Basic Skills of Music I

(2-0) 2 hours credit.
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.

## 1122 Aural Skills II

(2-1) 2 hours credit. Prerequisite: MUS 1102 or an equivalent.
Offers the opportunity to continue training in sight singing, aural skills, and keyboard, with emphasis on harmonic skills and twentieth-century materials. Should be taken concurrently with MUS 1132.

1132 Basic Skills of Music II
(2-0) 2 hours credit. Prerequisite: MUS 1112 or an equivalent.
Offers the opportunity for development of harmonic analytical and writing skills. Analytical techniques are applied to music from a variety of style periods.

## 1251 Basic Repertoire

(1-0) 1 hour credit.
An introduction to listening and musical concepts, sampling the repertoires of the concert hall and opera theater. Audiovisual experience is the chief focus.

1511 Music Performance-Secondary Instrument
1 hour credit.
Private instruction for students desiring or required to study as secondary instrument the following: baritone, bassoon, clarinet, contrabass, cornet, flute, classical guitar, 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.

1522 Class Piano
(2-1) 2 hours credit.
For music students with little or no piano background. Basic musical and technical skills of hand position, tone production, memorization, sightreading, and musical style are introduced through the study of technical exercises and solo literature. May be repeated for credit at a more advanced level.

1531 Class Voice
(1-0) 1 hour credit. Prerequisite: Placement examination.
For students with no previous vocal training. Offers the opportunity for development of fundamentals of voice technique through in-class per-
formances 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 1522: Class Piano or consent of instructor.
For non-keyboard majors. Offers the opportunity to develop scorereading, transposition, and multiple-part reading.

1542 Music Performance-Private Instruction I
2 hours credit. Prerequisites: Placement by examination and concurrent enrollment in an assigned University ensemble.
Private instruction for students desiring or required to study the following instruments: baritone, bassoon, clarinet, contrabass, cornet, flute, classical guitar, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, or voice. Seminar attendance may be required. May be repeated for credit.

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 the 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.
Required attendance at a selected number of approved music concerts and recitals as determined by the Division of Music. May be repeated for credit.

2102 Aural Skills III
(2-1) 2 hours credit. Prerequisite: MUS 1122 or an equivalent.
Sight singing, aural skills, and keyboard techniques applied to literature and theory drawn from MUS 2152: Basic Skills of Music III. Should be taken concurrently with MUS 2152.

2112 Aural Skills IV
(2-1) 2 hours credit. Prerequisites: MUS 2102 and 2152, or their equivalents.
Application of skills to materials drawn from MUS 2162: Basic Skills of Music IV. Should be taken concurrently with MUS 2162.

2132 Improvisation
(2-0) 2 hours credit. Prerequisite: MUS 1132 or consent of instructor.
Offers the opportunity for development of creative skills applied to melodic, rhythmic, and harmonic elaboration techniques adapted to the student's instrument. Stylistic elements vary according to the section offered: Jazz Improvisation or Improvisation in Traditional Styles. [TCCN: MUSI 1263.]

## 2142 Composition I

2 hours credit. Prerequisites: MUS 1102, 1112, and consent of instructor. Fundamentals of composition through small forms. Seminar attendance is required. [TCCN: MUSI 1286.]

## 2152 Basic Skills of Music III

(2-0) 2 hours credit. Prerequisite: MUS 1132 or an equivalent.
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: Aural Skills III.

## 2162 Basic Skills of Music IV

(2-0) 2 hours credit. Prerequisite: MUS 2152 or an equivalent.
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: Aural Skills IV.

## 2253 Introduction to Music Literature

(2-0) 3 hours credit. Prerequisite: MUS 1132 or permission 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.

Conducting I
(3-1) 3 hours credit. Prerequisite: MUS 1132 or an equivalent.
Fundamentals of beat patterns, score mechanics and score-reading, regular and irregular meters, gesture design, left hand cuing, and rehearsal techniques.

## 2413 Conducting II

(3-1) 3 hours credit. Prerequisite: MUS 2403 or an equivalent.
Offers the opportunity for continued training in conducting, emphasizing score-reading, rehearsal techniques, expressive conducting, score interpretation, and repertoire.

## 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 hours credit. Prerequisites: MUS 1542 or placement by examination, and concurrent enrollment in an assigned University ensemble.
Private instruction for students desiring or required to study the following instruments: baritone, bassoon, clarinet, contrabass, cornet, flute, classical guitar, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, or voice. Seminar attendance may be required. May be repeated for credit.

## 2603 Class Guitar

(3-0) 3 hours credit.
An introductory course intended primarily for the non-music major. Emphasis will be on music in the first position (through the fourth fret) while learning technical aspects as defined by the early nineteenthcentury guitar masters.

2613 Intermediate Guitar
(3-0) 3 hours credit. Prerequisite: MUS 2603 or an equivalent.
Designed primarily for the non-music major. Continued study of rudimentary classical guitar repertoire and basic elements of classic guitar technique.

2623 Music Reading and Notation for the Non-Music Major (3-0) 3 hours credit.
Basic elements of reading pitch, rhythm, and meter in traditional music notation. Application of these principles to writing melodic lines and harmonizations. [TCCN: MUSI 1301.]

2643 Introduction to Opera and Oratorio
(3-0) 3 hours credit.
A study of individual works representative of the dramatic musical traditions of the Western world. Background information on social setting and function, historical significance, aesthetics, and composers' biographies.

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 may not be earned for both MUS 2683 and MUS 3643.)

## 3113 Analysis I

(3-0) 3 hours credit. Prerequisites: MUS 2112, 2162, and 2253, or their equivalents.
Analysis of musical form, concentrating on small structural units such as motives, phrases, periods, binaries, and ternaries. Includes a survey of larger forms such as Sonata Form, Theme and Variations, Rondo, and Concerto.

[^12]3133 Analysis II
(3-0) 3 hours credit. Prerequisite: MUS 3113.
In-depth structural analysis of such larger forms of music as Rondo, Sonata Form, Theme and Variations, and Concerto.

3143 Orchestration
(3-0) 3 hours credit. Prerequisites: MUS 2112, 2162, and 2253.
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 magnetic tape recording principles, microphone selection and placement, and sound and recording engineering in live and studio applications.

3162 Composition II
2 hours credit. Prerequisites: MUS 2112, 2142, 2162, 2253, 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 hours credit. Prerequisite: MUS 3123.
Private study in composition, with an emphasis on such electro-acoustic music techniques as digital sound synthesis, tape recorder manipulations, mixing, and sampling. Seminar attendance is required. May be repeated for credit.

## 3213 Music in Civilization I

(3-0) 3 hours credit. Prerequisites: MUS 2162 and 2253, 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.

## 3223 Music in Civilization II

(3-0) 3 hours credit. Prerequisites: MUS 2162 and 2253, 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.
(2-1) 2 hours credit. Prerequisite: Upper-division standing and consent of instructor.
Topics include Chamber Music; Wind Literature; Vocal Literature, Orchestral Literature; History and Literature of the Guitar; Choral Literature; Literature of the Pianoforte; Organ Literature; The Operatic Tradition; Advanced Analytical Techniques; Music Since 1950; and The Instrumental Concerto. Two or more topics may be taken concurrently. May be repeated for credit when topics vary.

## 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 an 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 2253 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.

3451 Woodwind Instruments
(1-1) 1 hour credit. Prerequisite: MUS 1132 or an equivalent.
A study of the playing techniques, selection of materials, and maintenance of woodwind instruments.

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 may not be earned for both MUS 3453 and MUS 4423.)

## 3463 Music Studies II

(3-0) 3 hours credit. Prerequisite: Upper-division standing in music.
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 an 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 an equivalent.
A study of playing techniques, selection of materials, and maintenance of percussion instruments.

Diction Survey
(1-1) 1 hour credit.
A survey of English and foreign language pronunciation as applied to performance.

## 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.

2 hours credit. Prerequisites: MUS 2542 or placement by examination, and concurrent enrollment in an assigned University ensemble.
Private instruction for students desiring or required to study the following instruments: baritone, bassoon, clarinet, contrabass, cornet, flute, classical guitar, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, or voice. Seminar attendance may be required. May be repeated for credit.

## Music Performance-Private Instruction IV

3 hours credit. Prerequisites: Upper-division standing, consent of instructor, and concurrent enrollment in an assigned University ensemble. Private instruction at an advanced level in baritone, bassoon, clarinet, conducting, contrabass, comet, flute, classical guitar, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, or voice. Seminar attendance may be required. May be repeated for credit. Limited to students accepted to upper-division standing in the performance emphasis of the Bachelor of Music degree program.

## Music in Contemporary Life

(3-0) 3 hours credit.
Designed to increase the student's awareness of the varied functions of music in our 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.

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.

3741 Chamber Orchestra
(0-3) 1 hour credit. Open to all string students by audition; concurrent registration in MUS 3761: Orchestra 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.

3751 Symphonic Band
(0-3) 1 hour credit. Open to all students by audition.
Ensemble performs traditional repertoire for the full symphonic band. May be repeated for credit.

3761 Orchestra
(0-3) 1 hour credit. Open to all students by audition; concurrent registration in MUS 3741: Chamber Orchestra is required of all string principals. The UTSA orchestra studies, rehearses, and performs literature from the basic orchestral repertoire. May be repeated for credit.

## 3771 Jazz Ensemble

(0-3) 1 hour credit. Open to all students by audition.
Ensembles specializing 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.

## 3781 UTSA Roadrunner Band

(0-3) 1 hour credit. Open to all students by audition.
An instrumental ensemble performing contemporary popular literature at UTSA athletic events and other university-related functions. May be repeated for credit.

Opera Workshop
(0-3) 1 hour credit. Open to all students by audition.
The study and performance of opera and other types of musical theatre 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 2253.
Private study in applied composition, with an emphasis on eighteenthcentury and twentieth-century contrapuntal techniques and procedures.

## 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.

The Marching Band
(3-1) 3 hours credit. Prerequisites: MUS 2162 and 2253.
A study of the repertoire, materials, and maneuvers used by marching bands.

4532 Music Pedagogy
(2-1) 2 hours credit. Prerequisite: Upper-division standing in music. 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.

4544 Music Performance-Private Instruction V
4 hours credit. Prerequisites: MUS 3543 or an equivalent; consent of instructor; and concurrent enrollment in an assigned University ensemble. Private instruction at an advanced level in baritone, bassoon, clarinet, contrabass, comet, flute, classical guitar, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, or voice. Seminar attendance may be required. May be repeated for credit. Limited to students accepted to upper-division standing in the Performance emphasis of the Bachelor of Music degree program.

4561 Senior Recital
1 hour credit. Prerequisite: Consent of instructor. Concurrent enrollment with MUS 4544 is required of students in the Performance emphasis; concurrent enrollment in MUS 4142 is required of students in 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 to 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

1-3 hours credit. Prerequisites: Permission in writing (form available) of 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 hours of independent study, regardless of discipline, will apply to a bachelor's degree.

## 4951,3 Special Studies in Music

1,3 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 courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

4983 Honors Seminar
3 hours credit. Prerequisites: Overall university GPA of 3.0, GPA of 3.5 in music courses, and consent of instructor.
An undergraduate seminar limited to music majors in one of their last two semesters who qualify to graduate with Division Honors in Music. Intensive study of a topic within each student's area of concentration. Students present research in the form of a lecture or lecture-recital.

## COLLEGE OF SCIENCES \& ENGINEERING



## COLLEGE OF SCIENCES AND ENGINEERING

## COLLEGE HONORS

The College of Sciences and Engineering designates certain of its outstanding students as Honors students and provides the opportunity for advanced study under close faculty supervision.

Selection of students for admission to the College Honors Program 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 grade-point average of 3.0 overall at UTSA and a minimum grade-point average of 3.0 in their major at UTSA. The minimum grade-point averages must be maintained for students to receive the approval of the College Honors Committee and the discipline faculty. Students admitted to the Honors program are expected to enroll in the appropriate Honors Research course during the final two semesters in residence. 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 EARTH AND PHYSICAL SCIENCES

The degree programs offered by this Division 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 the student to apply for entry into one of several highly specialized areas in chemistry, geology, or physics. A student who has majored in any of these degree programs is eligible to apply for positions in industry and government as well as apply 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. The Division also offers minors in Chemistry, Physical Chemistry, Geology, and Physics.

## BACHELOR OF SCIENCE DEGREE IN MULTIDISCIPLINARY SCIENCE

This degree is primarily for students preparing to teach science at the secondary school level.

The minimum number of semester hours required for this degree, including the Core Curriculum requirements, is 138.
A. 45 or 47 semester hours of required science courses:

AST 1013, 1031 Introduction to Astronomy and Laboratory
BIO 1203, 1212 Biology I and Laboratory Investigations in Biology

[^13]| BIO | 2123 |  | Comparative Anatomy of Vertebrates |
| :--- | :--- | :--- | :--- |
| CHE | 1103,1122 | General Chemistry and Laboratory Workshop |  |
| CHE | 1303 |  | Chemical Principles |
| CHE | 1312, | Inorganic Qualitative and Quantitative Analysis |  |
| GEO | 1103,1111 | Introduction to Earth Systems and Laboratory |  |
| GEO | 1123,1131 | Earth History and Laboratory |  |
| GEO | 4113,4121 | Geomorphology and Laboratory |  |
| GRG | 3713 |  | Weather and Climate |
| Either |  |  |  |
| PHY | 1603,1611 | General Physics I and Laboratory |  |
| PHY | 1623,1631 | General Physics II and Laboratory |  |
|  |  | or |  |
|  | PHY | 1904, | $1911 \quad$ Technical Physics I and Laboratory |
|  | PHY | 1924, | $1931 \quad$ Technical Physics II and Laboratory |

B. 29 semester hours of approved electives in biology, chemistry, physics, geology, and/or mathematics. 15 of these must be at the upper-division level.
C. 6 semester credit hours in computer science and mathematics:

| CS | 1073 | Introductory Computer Programming for Scientific Applications |
| :--- | :--- | :--- | :--- |
|  |  | or |
| CS | 2083 Microcomputer Applications |  |
| MAT | 1093 | Precalculus (or above) |

D. 24 semester hours of electives, as set forth below:

1. For students seeking the degree only (without teacher certification), these elective hours must include 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 elective hours must include:

IDS 3003 Science and Humanity
21 semester hours of professional education courses.
In addition, students seeking teacher certification may count EDU 3103: Education in American Society toward the Core Curriculum requirement in Social and Behavioral Sciences (Domain II).

## 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, medical technology, and for graduate study in chemistry or other related fields.

The minimum number of semester hours required for this degree, including the Core Curriculum requirements, is 133 .
A. 53 semester 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 Recitation |
| CHE | 2303 | Organic Chemistry II |
| CHE | 2342 | Organic Chemistry II Laboratory |
| CHE | 2351 | Organic Chemistry II Recitation |
| CHE | 3103 | Analytical Chemistry |
| CHE | 3204 | Physical Chemistry I |
| CHE | 3212 | Physical Chemistry Laboratory |
| CHE | 3224 | Physical Chemistry II |
| CHE | 3243 | Instrumental Analysis |
| CHE | 3264 | Descriptive Inorganic Chemistry |
| CHE | 4243 | Organic Chemistry III |
| CHE | 4253 | Physical Chemistry III |
| CHE | 4263 | Inorganic Chemistry |
| CHE | 4923 | Special Project in Chemistry |
|  |  | or |
| CHE | 4971 | Proseminar |

B. 6 additional semester hours of approved upper-division chemistry electives. No more than 3 semester hours may be from CHE 4913: Independent Study or CHE 4923: Special Project in Chemistry.
C. 23 semester hours of support work in science and mathematics:

1. 20 semester hours of required courses:

| MAT | 1214 | Calculus I |
| :--- | :--- | :--- |
| MAT | 1223 | Calculus II |
| MAT | 2213 | Calculus III |
|  |  | or |


|  | CS | 1723 | Data Structures I |
| :--- | :--- | :--- | :--- |
| PHY | 1904, | 1911 | Technical Physics I and Laboratory |
| PHY | 1924, | 1931 | Technical Physics II and Laboratory |

2. 3 additional hours of elective work from the College of Sciences and Engineering, as approved by the Advisor.
D. 3-4 semester hours in computer science:

CS 1073 Introductory Computer Programming for Scientific Applications or
CS 1714 Introduction to Computer Science
E. 6 semester hours of electives.

## BACHELOR OF ARTS DEGREE IN CHEMISTRY (Coordinating Board approval pending)

The Bachelor of Arts degree in Chemistry is a less comprehensive degree in Chemistry than the Bachelor of Science degree. 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 hours required for this degree, including the Core Curriculum requirements, is 124 . All candidates for the degree must complete:
A. 37 semester 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 Recitation |
| CHE | 2303 | Organic Chemistry II |
| CHE | 2342 | Organic Chemistry II Laboratory |
| CHE | 2351 | Organic Chemistry II Recitation |
| CHE | 3103 | Analytical Chemistry |
| CHE | 3124 | Basic Physical Chemistry |
| CHE | 3212 | Physical Chemistry Laboratory |
| CHE | 3243 Instrumental Analysis |  |
| CHE | 3264 | Descriptive Inorganic Chemistry |
| CHE | 4971 | Proseminar |

B. 12 additional semester hours of approved upper-division chemistry electives. No more than 6 semester hours may be from CHE 4913: Independent Study or CHE 4923: Special Project in Chemistry.
C. 24-27 semester hours of support work in science and mathematics:

1. 15-18 semester hours of required courses:
$\begin{array}{lll}\text { MAT } & 1214 & \text { Calculus I }\end{array}$
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 1073 Introductory Computer Programming for Scientific Applications
or
CS 1714 Introduction to Computer Science
2. 9 additional semester hours of approved electives from the College of Sciences and Engineering. Up to 6 semester hours may be outside the College ( 9 semester hours for students seeking teacher certification), with prior approval of the advisor.
D. 6 semester hours of electives.

## MINOR IN CHEMISTRY

The purpose of this program is to permit students majoring in other areas to sbtain a solid, broad-based knowledge of chemistry. The program is applicable to those students in other areas of science and in preprofessional programs.

22 semester 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, to obtain advice, or to seek approval of substitutions for course requirements, students should consult the Undergraduate Advisor of Record in the Division of Earth and Physical Sciences.

## MINOR IN PHYSICAL CHEMISTRY

The purpose of this program is to permit students, especially those majoring in physics, engineering, and mathematics, to obtain a strong background in physical chemistry. The fundamentals in other areas of chemistry will also be studied.

21-22 semester hours are required for this minor:
A. 18 semester hours of required courses:

CHE 1303 Chemical Principles
CHE 1312 Inorganic Qualitative and Quantitative Analysis
CHE 2203 Organic Chemistry I
CHE 3204 Physical Chemistry I
CHE 3212 Physical Chemistry Laboratory
CHE 3224 Physical Chemistry II
B. 3-4 additional semester hours, to be selected from the following:

CHE 3103 Analytical Chemistry
CHE 3264 Descriptive Inorganic Chemistry
CHE 4253 Physical Chemistry III
To declare a minor in Physical Chemistry, to obtain advice, or to seek approval of substitutions for course requirements, students should consult the Undergraduate Advisor of Record 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 Physical Therapy, 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

(0-4) 1 hour credit. Prerequisite: Completion of or concurrent enrollment in CHE 1003.
Introduction to chemical laboratory techniques. For majors in Physical Therapy, 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.

1103 General Chemistry
(3-0) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in MAT 1063.
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, molecularkinetic theory, and states of matter. Concurrent enrollment in CHE 1122 is recommended. [TCCN: CHEM 1311.]

## 1122 General Chemistry Laboratory Workshop

(1-4) 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. [TCCN: CHEM 1111.]

## 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. (Formerly CHE 2103. Credit cannot be earned for both CHE 1203 and CHE 2103.)

## 1211 Organic and Biochemistry Laboratory

(0-4) 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. (Formerly CHE 2111. Credit cannot be earned for both CHE 1211 and CHE 2111.)

## 1303 Chemical Principles

(3-0) 3 hours credit. Prerequisite: At least a "C" in CHE 1103 or an equivalent.
A continuation of CHE 1103. Elementary inorganic and physical chemistry; topics include solutions, electrolytes, oxidation-reduction reactions, reaction trends, coordination chemistry, basic thermodynamics, chemical kinetics, and electrochemistry. Primarily for science majors. (Formerly CHE 2003. Credit cannot be earned for both CHE 1303 and CHE 2003.) [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. (Formerly CHE 2012. Credit cannot be earned for both CHE 1312 and CHE 2012.) [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, pre-med, and science majors. Concurrent enrollment in CHE 2242 and 2251 is recommended. [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 Recitation

(1-0) 1 hour credit. Prerequisite: Concurrent enrollment in CHE 2203.
A recitation 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.
Continuing study of fundamentals of structure, reactions, and reaction mechanisms of phosphorus and sulphur; poly-functional organic compounds. A continuation of CHE 2203. [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 Recitation
(1-0) 1 hour credit. Prerequisite: Concurrent enrollment in CHE 2303. A recitation section for discussion of problems amplifying and clarifying textual content of CHE 2303.

3103 Analytical Chemistry
(2-5) 3 hours credit. Prerequisites: CHE 1303 and 1312.
A detailed study of wet chemical and basic instrumental analysis, including gravimetric, volumetric, and spectrophotometric determinations.

3124 Basic Physical Chemistry
(3-2) 4 hours credit. Prerequisites: CHE 1303, 1312, MAT 1214, and either PHY 1623 and 1611 or 1924 and 1911.
A one-semester course covering some basic concepts of thermodynamics, chemical equilibria, kinetics, spectroscopy, and related topics. May not be applied to a Bachelor of Science degree in Chemistry.

3204 Physical Chemistry I
(4-0) 4 hours credit. Prerequisites: CHE 1303, 1312, MAT 1223, and PHY 1924 and 1931; completion of two semesters of organic chemistry is strongly recommended.
States of matter, gas laws, equations of state, inter-molecular interactions; thermodynamics and physical equilibria, elements of molecular-kinetic theory and statistical mechanics; physico-chemical properties of solutions, chemical equilibria, phase equilibria, and changes of state.

3212 Physical Chemistry Laboratory
(0-6) 2 hours credit. Prerequisite: CHE 3124 or 3224.
Experimental study of thermodynamics and electrochemistry, spectroscopy, and reaction kinetics.

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 photo-chemistry. A continuation of CHE 3204.

3243 Instrumental Analysis
(1-6) 3 hours credit. Prerequisites: CHE 2342, 3103, and completion of or concurrent enrollment in CHE 3124 or 3224.
Electrochemical methods; use of modern spectrometric and chromatographic instrumentation in separation, purification, and/or quantitative characterization of chemical systems.

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.

## 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 statisticothermodynamical 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.

4373 Organic Spectral Studies
(3-0) 3 hours credit. Prerequisite: CHE 2342.
Identification of functional groups and the determination of the structure of compounds by spectral techniques including IR, NMR, mass spectroscopy, and UV-Vis absorption spectroscopy; basic theory of spectral measurements with emphasis on practical applications.

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. Fivemembered and six-membered ring systems with one and more than one heteroatom. Applications in the field of synthetic drugs.

4603 Synthesis and Biosynthesis of Natural Products
(3-0) 3 hours credit. Prerequisite: CHE 4373 and 4243, or BIO 3513 are recommended.
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

$1-3$ hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's advisor, and 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. For students desiring specialized work.

May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

4923 Special Project in Chemistry
(3-0) 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, resulting 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 courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

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 when topics vary, but only 2 hours may be applied towards 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 for preparation for careers in petroleum, mining, water resources, environmental management, governmental agencies, engineering geology, geochemistry, geophysics, and natural resources.

The minimum number of semester hours required for this degree, including the Core Curriculum requirements, is 133 .

All candidates for the degree must complete:
A. 52 semester hours in geology:

1. 40 semester 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 4947 Field Geology
2. 12 additional semester hours, to be selected from the following (a maximum of 3 hours of GEO 4911-3 or 4953 may apply to this requirement):

GEO 3083 Stratigraphy
GEO 3091 Stratigraphy Laboratory
GEO 3113 Geologic Field Investigations
GEO 3143 Economic Geology
GEO 3151 Economic Geology Laboratory
GEO 3163 Oceanography
GEO 3374 Geochemistry
GEO 3383 General Geophysics
GEO 4023 Engineering Geology
GEO 4063 Principles of Environmental Geology
GEO 4113 Geomorphology
GEO 4121 Geomorphology Laboratory
GEO 4623 Ground-Water Hydrology
GEO 4803 X-Ray Crystallography
GEO 4911-3 Independent Study
GEO 4953 Special Studies in Geology
GEO 4993 Honors Research
B. 26-29 required semester hours in the College of Sciences and Engineering:

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 1714 Introduction to Computer Science
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. 9 semester hours of electives.

## BACHELOR OF ARTS DEGREE IN GEOLOGY (Coordinating Board approval pending)

The Bachelor of Arts degree in Geology provides opportunities for preparation for careers in fields such as the legal profession, insurance, financial services, and
environmental management. It is not recommended for students planning to pursue graduate studies in geology or related fields.

The minimum number of semester hours required for this degree, including the Core Curriculum requirements, is 126 . All candidates for the degree must complete:
A. 40 semester hours of geology:

1. 28 semester 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 3113 Geologic Field Investigations
2. 12 additional semester hours, to be selected from the following (a maximum of 3 hours from either GEO 4911-3 or 4953 may apply to this requirement):

GEO 3083 Stratigraphy
GEO 3091 Stratigraphy Laboratory
GEO 3103 Structural Geology
GEO 3111 Structural Geology Laboratory
GEO 3123 Sedimentary Geology
GEO 3131 Sedimentary Geology Laboratory
GEO 3143 Economic Geology
GEO 3151 Economic Geology Laboratory
GEO 3163 Oceanography
GEO 3374 Geochemistry
GEO 3383 General Geophysics
GEO 4023 Engineering Geology
GEO 4063 Principles of Environmental Geology
GEO 4113 Geomorphology
GEO 4121 Geomorphology Laboratory
GEO 4623 Ground-Water Hydrology
GEO 4803 X-Ray Crystallography
GEO 4911-3 Independent Study
GEO 4953 Special Studies in Geology
GEO 4993 Honors Research
B. 23-24 semester hours in the College of Sciences and Engineering:

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 1714 Introduction to Computer Science
MAT 1214 Calculus I
PHY 1603, 1611 General Physics I and Laboratory
PHY 1623, 1631 General Physics II and Laboratory
C. 12 semester hours of electives.

## MINOR IN GEOLOGY

All students pursuing the minor in Geology must complete 21 semester hours:

| 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 |

To declare a minor in Geology, to obtain advice, or to seek approval of substitutions for course requirements, students should consult the Undergraduate Advisor of Record 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.

## 1103 Introduction to Earth Systems

(3-0) 3 hours credit.
The earth as a dynamic planet; relation of Earth's present day processes to its resources, structure, and internal composition. Nature of minerals and rocks, the hydrosphere, tectonics, earthquakes, volcanism, and surface features of Earth. Concurrent enrollment in GEO 1111 recommended. (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 Earth's present-day 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.
Formation and evolution of the earth, its life forms, and the major features of its surface. Concurrent enrollment in GEO 1131 recommended. (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: GEO 1103 and 1111, MAT 1093, CHE 1103, or consent of instructor; concurrent enrollment in GEO 2011. Crystallography, chemistry, physical properties, and origins of minerals.

2011 Mineralogy Laboratory
(0-3) 1 hour credit. Prerequisite: Concurrent enrollment in GEO 2003. Laboratory study of crystal models, crystals, and minerals.

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 non-opaque 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.

## 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.

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.

## 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 geologic 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, and systems analysis, and various aspects of sequence stratigraphic analysis.

## 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, air photos, and descriptive geometric and stereographic methods.

## 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 credit hours may be applied to a B.A. or B.S. degree in Geology. Concurrent enrollment in GEO 4947 is not permitted. May be offered during summer session.

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. Prerequisite: 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, 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. Prerequisites: GEO 3043, 3052, and 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.

## 3163 Oceanography

(3-0) 3 hours credit. Prerequisite: Consent of instructor.
General oceanography, with emphasis on marine geology and especially the continental margins.

## 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.

4023 Engineering Geology
(3-0) 3 hours credit. Prerequisites: PHY 1904 or 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 1003 and 1011.
Geologic factors important to city and regional planning. Land capability studies; geologic hazards.

## 4113 Geomorphology

(3-0) 3 hours credit. Prerequisites: GEO 1103, 1111, and concurrent enrollment in GEO 4121.
Analysis of Cenozoic landform evolution.
4121 Geomorphology Laboratory
(0-3) 1 hour credit. Prerequisites: GEO 1103, 1111 , and concurrent enrollment in GEO 4113.
Interpretation of maps and aerial photographs.
4623 Ground-Water Hydrology
(3-0) 3 hours credit. Prerequisites: GEO 1103, 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

1-3 hours credit. Prerequisite: Permission in writing (form available) of 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. For students desiring specialized work. May be repeated for credit, but not more than 3 hours will apply to a bachelor's degree in Geology.

4947 Field Geology
(6-12) 7 hours credit. Prerequisites: GEO 3103, 3111, and consent of instructor.
Field mapping and measurements during a seven-week period in summer.
4953 Special Studies in Geology
(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 courses may be repeated for credit when the topics vary, but not more than 6 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, government agencies, and for graduate study in physics or other related fields.

The minimum number of semester hours required for this degree, including the Core Curriculum requirements, is 133 .

All candidates for the degree must complete:
A. 49 semester hours:

1. 40 semester 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 3133 Computers in the Physics Laboratory

| PHY 3203 | Classical Mechanics I |
| :--- | :--- |
| PHY | 3293 |

2. 9 additional approved semester hours, to be 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 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 4911-3 Independent Study
PHY 4953 Special Studies in Physics
PHY 4993 Honors Research
B. 30 semester hours required in the College of Sciences and Engineering:

1. 27 semester 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. 3 additional approved semester hours in the College of Sciences and Engineering.

## BACHELOR OF ARTS DEGREE <br> IN PHYSICS <br> (Coordinating Board approval pending)

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 hours required for this degree, including the Core Curriculum requirements, is 124 .
A. 28 semester hours:

1. 25 semester 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 3133 Computers in the Physics Laboratory
PHY 3203 Classical Mechanics
PHY 3343 Advanced Physics Laboratory I
PHY 3423 Electricity and Magnetism
2. 3 additional semester hours, to be selected from the following:

PHY 3163 Theoretical Physics
PHY 3293 Statistical Thermodynamics
PHY 3313 Solid State Physics
PHY 3443 Optics
PHY 3823 Mathematical Physics
PHY 4133 Numerical Methods for Physicists
PHY 4263 Quantum Mechanics
B. 42 semester hours required in the College of Sciences and Engineering:

1. 27 semester 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. 15 additional approved semester hours from the College of Sciences and Engineering.

## MINOR IN PHYSICS

All students pursuing the minor in Physics must complete 22 semester hours:
A. 19 semester 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
PHY 3423 Electricity and Magnetism
B. 3 semester hours, to be selected from the following:

PHY 3133 Computers in Physics Laboratory
PHY 3163 Theoretical Physics
PHY 3293 Statistical Thermodynamics
PHY 3313 Solid State Physics
PHY 3443 Optics
PHY 3823 Mathematical Physics
PHY 4133 Numerical Methods for Physicists
PHY 4263 Quantum Mechanics
To declare a minor in Physics, to obtain advice, or to seek approval of substitutions for course requirements, students should consult the Undergraduate Advisor of Record in the Division of Earth and Physical Sciences.

## COURSE DESCRIPTIONS <br> PHYSICS <br> (PHY)

1014 Introduction to Physical Sciences
(3-1) 4 hours credit. Prerequisite: MAT 1063.
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. degree in Physics.

1603 General Physics I
(3-0) 3 hours credit. Prerequisite: MAT 1063 or an equivalent.
Motion, forces, conservation of energy and momentum, fluids, wave motion, and heat. Concurrent enrollment in PHY 1611 recommended. [TCCN: PHYS 1301.]

## 1611 General Physics I Laboratory

(0-3) 1 hour credit. Prerequisites: Completion of or concurrent enrollment in PHY 1603; proficiency in DOS, spreadsheets, and word processing. Laboratory to accompany PHY 1603. [TCCN: PHYS 1101.]

1623 General Physics II
(3-0) 3 hours credit. Prerequisites: PHY 1603 and MAT 1063.
Electrostatics, electromagnetism, light, sound, and atomic and nuclear physics. Concurrent enrollment in PHY 1631 recommended. [TCCN: PHYS 1302.]

## 1631 General Physics II Laboratory

(0-3) 1 hour credit. Prerequisites: Completion of or concurrent enrollment in PHY 1623; proficiency in DOS, spreadsheets, and word processing. Laboratory to accompany PHY 1623. [TCCN: PHYS 1102.]

[^14]
## 1911 Technical Physics I Laboratory

(0-3) 1 hour credit. Prerequisites: Completion of or concurrent enrollment in PHY 1904; proficiency in DOS, spreadsheets, and word processing. Laboratory to accompany PHY 1904. [TCCN: PHYS 2125.]

## 1924 Technical Physics II

(4-0) 4 hours credit. Prerequisites: PHY 1904 and completion of or concurrent enrollment in MAT 1223.
Electricity and magnetism, wave phenomena, and elements of modern physics. Concurrent enrollment in PHY 1931 is recommended. [TCCN: PHYS 2426.]

1931 Technical Physics II Laboratory
(0-3) 1 hour credit. Prerequisites: Completion of or concurrent enrollment in PHY 1924; proficiency in DOS, spreadsheets, and word processing. Laboratory to accompany PHY 1924. [TCCN: PHYS 2126.]

## 3103 Modern Physics

(3-0) 3 hours credit. Prerequisite: PHY 1924.
Special relativity, Planck's Radiation Law, elements of quantum mechanics, atomic and molecular structures, spectra, the atomic nucleus, nuclear reactions, and an introduction to elementary particles.

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.

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 and dynamics of systems of particles; rigid body motion. Applications are emphasized.

3293 Statistical Thermodynamics
(3-0) 3 hours credit. Prerequisites: PHY 1924, 3103, and MAT 2213. Fundamentals of thermodynamics: entropy, free energy, phase transitions, and thermodynamic potentials; equilibrium Maxwell-Boltzmann, BoseEinstein, 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, and semiconductor crystals.

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.)
$3423 \quad$ Electricity and Magnetism
(3-0) 3 hours credit. Prerequisites: PHY 1924, and completion of or concurrent enrollment in MAT 2213.
Vector calculus, electrostatics magnetostatics, Faraday's Law, and Ohm's Law.

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, non-linear properties, and Fourier optics.

## 3453 Lasers: Theory and Applications

(3-0) 3 hours credit. Prerequisite: PHY 3103.
Basic principles and designs of lasers: the Einstein A and B coefficients; the semi-classical laser theory; the phase-coherent nature of the stimulated emission process; and laser efficiency. Various applications of lasers; e.g., laser-induced fluorescence, light wave communications, holography, surgery, laser fusion, etc.

3823 Mathematical Physics (3-0) 3 hours credit. Prerequisite: MAT 2233.
Complex variable theory, partial differential equations of physics, special functions, and approximation techniques.

4133 Numerical Methods for Physicists
(3-0) 3 hours credit. Prerequisites: PHY 1924, MAT 3613, and knowledge of either the " C " or " $\mathrm{C}++$ " programming language.
Topics covered include numerical integration of functions, solution of linear algebraic equations, matrices, Monte Carlo methods, root finding, minimization and maximization of functions, fast Fourier and discrete wavelet transform methods, and solution of differential equations.

4203 Classical Mechanics II
(3-0) 3 hours credit. Prerequisite: PHY 3203.
Advanced methods in mechanics, and Lagrangian and Hamiltonian formulations.

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.

## 4911-3 Independent Study

1-3 hours credit. Prerequisite: Permission in writing (form available) of 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. For students desiring specialized work. May be repeated for credit, but not more than 3 hours will apply to a bachelor's degree in Physics.

## 4953 Special Studies in Physics

(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies courses may be repeated for credit when the topics vary, but not more than 6 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 1063.
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. [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, to include simple observations, measurement, and photography. [TCCN: PHYS 1111.]

## COURSE DESCRIPTIONS ENVIRONMENTAL-NATURAL RESOURCES (ENV)

## 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 is placed on understanding system dynamics and how these relate to public policy formulation and natural resource use.

3023 Man and His Natural Resources (3-0) 3 hours credit.
An in-depth analysis of man's dependency upon 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.

## DIVISION OF ENGINEERING

The Division 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 (ABET/EAC). 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 high technology.

The Division has excellent laboratory facilities where students receive hands-on instruction by our 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 quality engineering education is complemented by the Core Curriculum. Graduates from the Division of Engineering should have excellent opportunities for employment and for pursuing graduate degrees.

## DEGREE REQUIREMENTS COMMON TO ALL PROGRAMS

Entering students should enroll in a specific engineering program by selecting either 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 Division office and/or a faculty advisor in the appropriate discipline. Since the first year of study is the same for all engineering programs, changing majors in the first year normally can be accomplished with no loss of credit.

Prerequisites for CE, EE, ME, and 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 Division of Engineering.

Requirements common to all engineering degree programs are given below.
I. Core Curriculum requirements: Students seeking the Bachelor of Science degree in any engineering field must fulfill University Core Curriculum requirements by taking the following courses or their equivalents:

## Rhetoric (6 semester hours)*

## Domain I: Science, Technology, and Mathematics

Mathematics (4 semester hours):
MAT 1214 Calculus I
Science (7 semester hours):
CHE 1103 General Chemistry
PHY 1904 Technical Physics I

Computer Science/Logic (3 semester hours):
CS 2073 Programming with Engineering Applications

## Domain II: Society and Culture

United States History and Diversity ( 6 semester hours)*
Political Studies ( 6 semester hours)*
Economics (3 semester hours):
EGR 3713 Engineering Economic Analysis
Social and Behavioral Sciences (incorporated in Domain IV)
Domain III: Literature, the Arts, and Language
Language (semester hours vary)*
Literature (incorporated in Domain IV)
The Arts (incorporated in Domain IV)

## Domain IV: Interdisciplinary Studies

Diversity of Thought ( 3 semester hours). One of the following:
CE 4813 Civil Engineering Design
EE 4813 Electrical Engineering Design
ME 4813 ME Design Project
Diversity of Culture ( 6 semester hours):
IDS 2203 World Civilization to the Fifteenth Century COR 2213 Engineering and Civilization
*Engineering students meet this section of the Core Curriculum in the same way as other UTSA students, as indicated in the description of the Core Curriculum in the Bachelor's Degree Regulations chapter of this catalog.

## II. General Engineering Requirements:

All degree-seeking candidates in engineering must complete the following 38 semester hours (CHE 1103, PHY 1904, MAT 1214, CS 2073, and EGR $3713^{\circ}$. also satisfy 16 hours of the Core Curriculum):

| CHE | 1103 | Introductory Chemistry |
| :--- | :--- | :--- |
| CHE | 1303 | Chemical Principles |
| CS | 2073 | Programming with Engineering Applications |
| EGR | 1301 | Introduction to Engineering Problems |
| EGR | 1402 | Engineering Graphical Communications |
| EGR | 3713 | Engineering Economic Analysis |
| MAT | 1214 | Calculus I |
| MAT | 1223 | Caculus II |
| MAT | 2213 | Calculus III |
| MAT | 3253 | Engineering Analysis I |
| PHY | 1904, | 1911 |
| PHY | Technical Physics I and Laboratory |  |
| 1924, | 1931 | Technical Physics II and Laboratory |

## COURSE DESCRIPTIONS ENGINEERING (EGR)

1203 Science, Technology, and Society (3-0) 3 hours credit.
History, meaning, and effects of the scientific method on our world. Technology assessed as a composite of applied science and human needs. Review of ethical implications of technologies and educational requirements for a technology-dominated future.

1213 Consumer Technology
(3-0) 3 hours credit. Prerequisite: MAT 1063.
Engineering and technological principles chosen from audio, communication, computer, transportation, video, and other applications. Concurrent enrollment in EGR 1221 recommended.

## 1221 Consumer Technology Laboratory

(0-3) 1 hour credit. Prerequisite: Completion of or concurrent enrollment in EGR 1213.
Laboratory to accompany EGR 1213.
1301 Introduction to Engineering Problems
(1-0) 1 hour credit.
Engineering as a career; engineering ethics; and approaches to engineering problem solving through the use of engineering principles.

1402 Engineering Graphical Communications
(1-3) 2 hours credit. Prerequisite: Completion of or concurrent enrollment in MAT 1214.
Technical communication, engineering graphics, and an introduction to computer-aided graphics. Introduction to engineering analysis, design synthesis, and production methods.

## 2203 Statics

(3-0) 3 hours credit. Prerequisites: EGR 1301, EGR 1402, MAT 1223, and PHY 1904.
Vector algebra, force systems, and free body diagrams. Engineering applications of equilibrium, centroids, and moments of inertia. [TCCN: ENGR 2301.]

## 2213 Engineering Mechanics

(3-0) 3 hours credit. Prerequisites: EGR 1301, EGR 1402, MAT 1223, and PHY 1904.
Force systems, moments, equilibrium, kinematics, and kinetics of particles and plane rigid bodies. Not open to students majoring in Civil or Mechanical Engineering. May not be substituted for EGR 2203 or EGR 2503.

## 2503 Dynamics

(3-0) 3 hours credit. Prerequisites: EGR 2203, and completion of or concurrent enrollment in MAT 2213.
Kinematics and kinetics of particles and plane rigid bodies, work and energy, impulse and momentum, and engineering applications. [TCCN: ENGR 2302.]

## 3213 Mechanics of Solids

(3-0) 3 hours credit. Prerequisite: EGR 2203.
Internal forces and deformations in solids; stress, strain, and their relations; stresses and deflections in beams column theory and analysis; and engineering applications.

## 3713 Engineering Economic Analysis

(3-0) 3 hours credit. Prerequisite: Upper-division standing in the Division of Engineering.
Fundamentals of economics and economic policies. Techniques of economic analysis for engineering decisions, economic evaluation, and risk assessment. (Formerly EGR 4713. Credit cannot be earned for both EGR 3713 and EGR 4713.)

4723 Intelligent Robotics
(3-0) 3 hours credit. Prerequisites: EE 2213 or EE 2423, and completion of or concurrent enrollment in ME 4522 or EE 3413.
Theory and industrial application of robots; sensing; and artificial intelligence. (Formerly ME 4713. Credit cannot be earned for both EGR 4723 and ME 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 courses may be repeated for credit when topics vary, but not more than 6 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 B.S. degree program in Civil Engineering is a broad-based program designed to prepare students for careers in areas traditionally associated with civil engineering as well as several modern areas of high technology. Students are required to take courses in subjects related to environmental and water resources issues, structural analysis and design methodology, civil engineering materials such as reinforced concrete and steel, and geotechnical engineering. In addition, elective courses are available to provide emphasis on urban engineering, transportation systems, structures made with advanced composite materials, construction, and
other areas. Upon graduation from the UTSA Civil Engineering program, successful students should be qualified to seek employment in local or national companies and government agencies associated with aerospace, automotive and transportation, environmental, structural, geotechnical, and other industries.
A. 54 hours of required courses:

| CE | 2113 | Plane Surveying |
| :--- | :--- | :--- |
| CE | 3113 | Structural Analysis |
| CE | 3213 | Reinforced Concrete Design |
| CE | 3233 | Steel Design |
| CE | 3243 | Properties and Behavior of Engineering Materials |
| CE | 3413 | Geotechnical Engineering |
| CE | 3603 | Hydraulic Engineering |
| CE | 3633 | Water and Wastewater Treatment |
| CE | 3713 | Civil Engineering Systems Analysis |
| CE | 4603 | Water Resources Engineering |
| CE | 4813 | Civil Engineering Design* |
| EE | 2213 | Electric Circuits and Electronics |
| EGR | 2203 | Statics |
| EGR | 2503 | Dynamics |
| EGR | 3213 | Mechanics of Solids |
| ENG | 2413 | Technical Writing |
| GEO | 4023 | Engineering Geology |
| ME | 3283 | Fundamentals of Thermal Sciences |

*May be used in satisfying the Core Curriculum requirements in Domain IV.
B. 9 hours of civil engineering electives, 6 of which must be selected from the following list:

CE 4113 Transportation Systems
CE 4223 Earth Structures
CE 4323 Urban Engineering Design
CE 4413 Foundation Engineering
CE 4523 Advanced Reinforced Concrete Design
CE 4543 Construction Planning
CE 4623 Municipal and Rural Sanitation
CE 4643 Air Pollution and Industrial Hygiene
CE 4653 Design of Water Pollution Control Systems
CE 4723 Hydraulic Systems Design

## COURSE DESCRIPTIONS CIVIL ENGINEERING (CE)

## 2113 Plane Surveying

(2-3) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in MAT 1214.
Plane surveying procedures: chaining, leveling, and measuring angles; applications: balancing traverses, constructing control networks, determining state plane coordinates, horizontal and vertical curves, and property boundaries.

3113 Structural Analysis
(3-0) 3 hours credit. Prerequisite: EGR 3213.
Forces and deflections in structural systems, considering stationary and moving loads and exact and approximate methods.

3213 Reinforced Concrete Design
(2-3) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in CE 3113.
Ultimate strength theory and design for reinforced concrete members.
3233 Steel Design
(2-3) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in CE 3113.
Analysis and design of tension members, beams, columns, and bolted or welded connections.

3243 Properties and Behavior of Engineering Materials
(2-3) 3 hours credit. Prerequisites: EGR 3213 and ENG 2413.
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

(2-3) 3 hours credit. Prerequisite: EGR 3213.
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. (Formerly CE 4213. Credit cannot be earned for both CE 3413 and CE 4213.)

## 3603 Hydraulic Engineering

(2-3) 3 hours credit. Prerequisite: EGR 2503.
Fluid properties, fluid statics concepts, and equations of fluid flow in pipes and open channels. Flow through porous media.

3633 Water and Wastewater Treatment
(2-3) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in CE 3603.
The application of chemical, biochemical, physical, and mathematical 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. Prerequisites: CS 2073, MAT 3253, and EGR 3713.
Introduction to systems approach to problem solving. Application of operations research in civil engineering; mathematical modeling and analysis techniques, including marginal analysis, linear programming, and dynamic programming. (Formerly CE 4713. Credit cannot be earned for both CE 3713 and CE 4713.)

## 3723 Surface Water Hydrology

(3-0) 3 hours credit. Prerequisites: CE 3603 or consent of instructor.
Hydrologic cycle, precipitation, hydrologic abstractions, surface runoff; unit hydrographs, synthetic hydrographs; peak discharge relationships;
flood frequency analysis; flood and reservoir routing; urban hydrology and stormwater management.

## 4113 Transportation Systems

(3-0) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in EGR 3713.
Planning, design, construction, operation, and maintenance of transportation systems; concepts of various modes of transportation.

4123 Highway Engineering
(3-0) 3 hours credit. Prerequisite: Senior standing in Civil Engineering. General characteristics of highway design. Horizontal and vertical alignment, cross sections, earthwork, drainage, and pavement. Economic analysis.

## 4223 Earth Structures

(2-3) 3 hours credit. Prerequisite: CE 3413.
Stability, strength, and deformation characteristics of engineering structures in and on geotechnical materials.

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. Application of commercially available design software.

4323 Urban Engineering Design
(2-3) 3 hours credit. Prerequisite: CE 3713.
Planning, analysis, and design of civil engineering systems for the urban environment, public transportation, traffic, and water supply and treatment. Projection of growth patterns, financing prioritization, and implementation. Integration of public and private sector facilities.

4413 Foundation Engineering
(3-0) 3 hours credit. Prerequisite: CE 3413.
Design of foundations and earth-retaining structures; study of earthpressure theories.

4513 Advanced Structural Analysis
(3-0) 3 hours credit. Prerequisite: CE 3113.
Digital computer analysis of linear structural systems. Theoretical basis for modern computer programs. Application of several standard programs for a variety of structures.

4523 Advanced Reinforced Concrete Design
(2-3) 3 hours credit. Prerequisite: CE 3213.
Design of reinforced concrete buildings by ultimate strength methods; pre-stressed concrete design.

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 (2-3) 3 hours credit. Prerequisite: CE 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.

4623 Municipal and Rural Sanitation (3-0) 3 hours credit. Prerequisite: CE 3603.
An examination of sanitation practices in rural and urban environments, including insect and rodent control, swimming pool sanitation, rural water supply, food sanitation, and disease transmission. (Formerly CE 3673. Credit cannot be earned for both CE 4623 and CE 3673.)

4643 Air Pollution and Industrial Hygiene
(2-3) 3 hours credit. Prerequisites: CHE 1303 and senior standing in Civil Engineering.
Discussion of the sources, quantities, effects of sampling, and control of airborne pollutants in ambient air, and in urban and industrial environments. (Formerly AS 4643. Credit cannot be earned for both CE 4643 and AS 4643.)

4653 Design of Water 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 and wastewater.

4723 Hydraulic Systems Design
(3-0) 3 hours credit. Prerequisites: CE 3603, MAT 3253, and senior standing in Civil Engineering; or consent of instructor:
Hydraulic structure design, culverts, transitions, and energy dissipators; stable channel design and sediment transport; receiving water quality analysis, dispersion, advective and reactive considerations; and hydraulic and water quality simulation models.

## 4813 Civil Engineering Design

(2-3) 3 hours credit. Prerequisites: CE 3213, 3233, 3413, 3603, 3633, and 3713.

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. Ethical and social impacts.

## 4911-3 Independent Study

1-3 hours credit. Prerequisite: Permission in writing (form available) of 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 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 courses may be repeated for credit when topics vary, but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

## BACHELOR OF SCIENCE DEGREE IN ELECTRICAL ENGINEERING

The B.S. degree program 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, which may lead to employment with electronic companies, high-technology industries, and government agencies.
A. 54 semester hours of required courses:

1. 45 semester hours of electrical engineering:

| EE | 2423 | Network Theory |
| :--- | :--- | :--- |
| EE | 2513 | Logic Design |
| EE | 3113 | Electrical Engineering Laboratory I |
| EE | 3213 | Electromagnetic Engineering |
| EE | 3313 | Electronic Circuits I |
| EE | 3413 | Analysis and Design of Control Systems |
| EE | 3423 | Network Analysis |
| EE | 3463 | Microcomputer Systems I |
| EE | 3513 | Electromechanical Systems |
| EE | 3563 | Digital Systems Design I |
| EE | 4113 | Electrical Engineering Laboratory II |
| EE | 4313 | Electronic Circuits II |
| EE | 4613 | Communication Systems |
| EE | 4643 | Digital Signal Processing |
| EE | 4813 | Electrical Engineering Design* |

*May be used in satisfying the Core Curriculum requirements in Domain IV.
2. 9 semester hours of supporting courses:

EGR 2213 Engineering Mechanics
ME 3283 Fundamentals of Thermal Sciences
STA 3533 Probability and Random Processes
B. 9 hours of electrical engineering electives, to be selected from the following:

EE 4243 Digital Systems Design II
EE 4323 Advanced Electrical Engineering Laboratory
EE 4333 Instrumentation Systems
EE 4343 Active Filter Synthesis

EE 4353 Introduction to Modern Optics
EE 4443 Discrete-Time and Computer-Controlled Systems
EE 4453 Principles of Bioengineering and Bioinstrumentation
EE 4513 LSI and VLSI Design
EE 4523 Integrated Circuit Design
EE 4573 Engineering Workstations
EE 4583 Microcomputer Systems II
EE 4623 Digital Filtering
EE 4653 Information Theory and Coding
EGR
4723 Intelligent Robotics

## COURSE DESCRIPTIONS ELECTRICAL ENGINEERING <br> (EE)

2112 Introductory Digital Laboratory
(1-3) 2 hours credit. Prerequisite: Concurrent enrollment in EE 2513. Introductory digital laboratory for computer science students enrolled in EE 2513. Not open to electrical engineering majors.

2213 Electric Circuits and Electronics
(3-0) 3 hours credit. Prerequisites: PHY 1924 and 1931, and completion of or concurrent enrollment in MAT 3253.
Electric, magnetic, and electronic circuits; transient analysis, transforms and phasors; transformers; solid state devices; analog and digital circuits. Not open to electrical engineering majors.

2423 Network Theory
(3-0) 3 hours credit. Prerequisites: MAT 2213, and completion of or concurrent enrollment in PHY 1924 and MAT 3253.
Basic network principles; steady state responses to DC and AC signals; transient responses; nodal and loop analysis; Laplace transforms; and 2port analysis. Use of SPICE to solve network problems. (Formerly EE 2424. Credit cannot be earned for both EE 2423 and EE 2424.)

## 2513 Logic Design

(3-0) 3 hours credit. Prerequisite: Computer science major, or completion of or concurrent enrollment in CS 2073.
Number systems, Boolean Algebra, combinational and sequential circuit design. Minimization and implementation. Introduction to computer-aided design (CAD) tools. (Formerly EE 2514. Credit cannot be earned for both EE 2513 and EE 2514.)

## 3113 Electrical Engineering Laboratory I

(1-6) 3 hours credit. Prerequisites: EE 2423, 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. Laboratory technical communication.

## \$213 Electromagnetic Engineering

(3-0) 3 hours credit. Prerequisites: PHY 1924, MAT 2213, and MAT 3253.

Review of vector calculus, Maxwell's equations, electromagnetic waves, dielectrics, and boundary conditions. Selected other topics include waveguides, anistropic crystal optics, transmission lines, fiber optics, reflection and refraction, and special relativity.

## 3313 Electronic Circuits I

(3-0) 3 hours credit. Prerequisites: PHY 1924, CHE 1303, EE 2423, and completion of or concurrent enrollment in EE 3423 or ME 3323.
Electrical properties of semiconductors; P-N junctions; diode circuits; BJT's and FET's; and application to digital and analog circuits. Use of SPICE to solve simple circuits.
. 3413 Analysis and Design of Control Systems
(3-0) 3 hours credit. Prerequisites: EGR 2213 and EE 3423 for electrical engineering major; ME 3323 for mechanical engineering major.
Modeling, analysis, and design of linear automatic control systems. Time and frequency domain techniques; stability analysis, state variable techniques, and other topics. (Formerly EE 4413. Credit cannot be earned for both EE 3413 and EE 4413.)

3423 Network Analysis
(3-0) 3 hours credit. Prerequisites: EE 2423 and MAT 3253.
Frequency response and complex variables, Fourier series, Fourier transforms, Dirac Delta function, convolution, mathematical modeling of systems, and the Z-transform.

3463 Microcomputer Systems I
(3-0) 3 hours credit. Prerequisites: EE 2513, 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. Software documentation techniques. (Formerly EE 4563. Credit cannot be earned for both EE 3463 and EE 4563.)

## 3513 Electromechanical Systems

(3-0) 3 hours credit. Prerequisites: EE 3213 and EGR 2213.
Principles of electromechanical energy conversion; polyphase circuits; dynamic analysis of energy-transfer devices; and power devices.

## 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. Design and verification of complex circuitry using Design Entry, functional modeling, physical modeling, and mixed-mode simulation.

## 4113 Electrical Engineering Laboratory II

(1-6) 3 hours credit. Prerequisites: EE 3113, 3463, and 4313.
Complex electronic circuit subsystem design. Improving measurement system performance. Introduction to automatic test equipment, the design process, and simple system design. 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. Processor design. Simulation and other computer-assisted design 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, 3423, and 3563.
Multiple transistor circuits; feedback and frequency response analysis; operational amplifier analysis and design; power semiconductors; and other topics. Design of analog and digital circuits. Use of SPICE to analyze complex circuits.

4323 Advanced Electrical Engineering Laboratory
(1-6) 3 hours credit. Prerequisites: Completion of or concurrent enrollment in EE 4113 and consent of instructor.
Laboratory experience in one of the following areas: controls, optics, digital systems, communications, or instrumentation.

4333 Instrumentation Systems
(2-3) 3 hours credit. Prerequisites: EE 3463, 3413, 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. 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. 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 which may be covered include Fourier optics, coherence theory, holography, lasers, Gaussian beams, acousto-optics, and electro-optics.

4443 Discrete-Time and Computer-Controlled Systems
(2-3) 3 hours credit. Prerequisites: EE 3413 and completion of or concurrent enrollment in EE 4643.
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; 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.
Design of integrated digital systems. Logic simulation, standard cell libraries, circuit simulation, and other computer-aided design tools. Integrated circuit processing and device modeling.

## 4523 Integrated Circuit Design

(2-3) 3 hours credit. Prerequisites: EE 3213 and 4313.
Analysis and design of analog and digital integrated circuits. Integrated circuit technologies, computer-aided analysis, design, and other tools. Fabrication and testing.

## 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. Networking considerations.

4583 Microcomputer Systems II
(2-3) 3 hours credit. Prerequisite: EE 3463, 3313, 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. Realtime and multi-user operating systems. High-level languages and software performance analysis.

## 4613 Communication Systems

(3-0) 3 hours credit. Prerequisites: STA 3533 and completion of or concurrent enrollment in EE 4313.
Fundamentals of communication systems engineering, using analog and digital techniques. Signal analysis, signal-to-noise ratio, and circuit implementations.

4623 Digital Filtering
(2-3) 3 hours credit. Prerequisites: EE 3463 and 4643.
Design and implementation of FIR and IIR filters, hardware, and software. Topics from adaptive filtering, neural networks, and image processing.

4643 Digital Signal Processing
(3-0) 3 hours credit. Prerequisites: EE 3423 and STA 3533.
Transform techniques for discrete signal analysis. Discrete representation and analysis of digital filters and other topics.
4653 Information Theory and Coding (3-0) 3 hours credit. Prerequisite: STA 3533. Elements of information theory and modulation and coding for efficient signaling and error correction. Hardware and software implementation of encoders and decoders.

## 4813 Electrical Engineering Design

(1-6) 3 hours credit. Prerequisites: EE 4113, 4643, and EGR 3713.
Complex system design. Advanced ATE. Project management, proposals, status reporting, formal oral and written technical reports, and business plan. Open-ended design project. Considers safety, reliability, environmental, economic, and other constraints. Ethical and social impacts.

## 4911-3 Independent Study

1-3 hours credit. Prerequisites: Permission in writing (form available) of 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 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 courses may be repeated for credit when topics vary, but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

## BACHELOR OF SCIENCE DEGREE IN MECHANICAL ENGINEERING

The B.S. degree program in Mechanical Engineering offers students the opportunity to prepare for careers in traditional as well as emerging high-technology areas of engineering design associated with machinery and mechanism design, thermal and fluid sciences, solid mechanics of advanced metallic or polymer-based composite materials, computer-aided design (CAD), vibrations and controls, robotics, and bioengineering. Through the proper selection of elective courses to augment required courses, successful students may develop a specialization pertinent to many of these areas, which may lead to employment with companies or government agencies associated with aerospace, automotive, heating and air conditioning, manufacturing, and other industries.
A. 51 semester hours of required courses:

| EE | 2213 | Electric Circuits and Electronics |
| :--- | :--- | :--- |
| EGR | 2203 | Statics |
| EGR | 2503 | Dynamics |
| EGR | 3213 | Mechanics of Solids |
| ME | 3201 | Network and Electronics Laboratory |
| ME | 3241 | Materials Engineering Laboratory |
| ME | 3243 | Materials Engineering |
| ME | 3293 | Thermodynamics I |

ME 3313 Measurements and Instrumentation
ME 3323 Dynamics of Mechanical Systems
ME 3423 Applied Engineering Analysis
ME 3513 Mechanism Design
ME 3523 Machine Element Design
ME 3663 Fluid Mechanics
ME 4293 Thermodynamics II
ME 4313 Heat Transfer and Rate Processes
ME 4522 Dynamic Systems Control
ME 4802 Mechanical Engineering Senior Laboratory
ME 4813 ME Design Project*
*May be used in satisfying the Core Curriculum requirements in Domain IV.
B. 12 semester hours of engineering electives:

1. 9 semester hours of mechanical engineering, 6 of which must be selected from the following:

| ME | 4323 | Thermal Systems Design I |
| :--- | :--- | :--- |
| ME | 4333 | Thermal Systems Design II |
| ME | 4343 | Heating, Air Conditioning, and Refrigeration Design |
| ME | 4413 | Intermediate Mechanism Design |
| ME | 4423 | Intermediate Machine Element Design |
| ME | 4513 | Mechanical Vibrations and Dynamics of Machinery |
| ME | 4533 | Mechanical Engineering Design Methodology |
| ME | 4603 | CAD Methodology |
| ME | 4613 | Power Systems Design |
| ME | 4723 | Reliability and Quality Control in Engineering Design |

2. 3 semester hours of engineering electives.

## COURSE DESCRIPTIONS MECHANICAL ENGINEERING (ME)

3201 Network and Electronics Laboratory (0-3) 1 hour credit. Prerequisite: Completion of or concurrent enrollment in EE 2213.
Basic experiments with electrical networks and electronic circuits. (Formerly EE 3401 . Credit cannot be earned for both ME 3201 and EE 3401.)

3241 Materials Engineering Laboratory
(0-3) 1 hour credit. Prerequisite: Completion of or concurrent enrollment in ME 3243.
Investigation of the properties of engineering materials, with emphasis on metals, sample preparation, metallography, and foundry processes.

## 3243 Materials Engineering

(3-0) 3 hours credit. Prerequisites: CHE 1303 and completion of or concurrent enrollment in EGR 3213.
Fundamental aspects of the structure, properties, and behavior of engineering materials.

3263 Materials Processing
(2-3) 3 hours credit. Prerequisites: ME 3243 and EGR 2503.
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: CS 2073, PHY 1904, and completion of or concurrent enrollment in MAT 3253.
Introduction to classical thermodynamics, fluid mechanics, and heat transfer; thermodynamics systems, first and second laws cycles; fluid statics and dynamics; applications of conduction, convections, and radiation heat transfer. Not open to students majoring in Mechanical Engineering. May not be substituted for ME 3293 or ME 4313.

3293 Thermodynamics I
(3-0) 3 hours credit. Prerequisites: CS 2073, PHY 1904, and MAT 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.

## 3313 Measurements and Instrumentation

(2-3) 3 hours credit. Prerequisites: CS 2073, EGR 3213, MAT 3253, and ME 3201.
Fundamentals of measurement systems; standards and treatment of data; transducers and signal conditioning; strain, force, acceleration, pressure, temperature, and fluid flow.

3323 Dynamics of Mechanical Systems
(2-2) 3 hours credit. Prerequisites: EGR 2213 or 2503, and MAT 3253. Mechanical system dynamics, linear systems, modeling techniques, analytical dynamics, and vibrations.

3423 Applied Engineering Analysis
(3-0) 3 hours credit. Prerequisites: CS 2073 and MAT 3253.
Application of mathematical principles to the analysis of engineering problems, using traditional and modern techniques.

## 3503 Alternative Energy Sources

(3-0) 3 hours credit. Prerequisite: ME 3293.
Solar, nuclear, wind, geothermal, and tidal energy. Energy storage problems. Principles, current technology, and economic considerations.

3513 Mechanism Design
(3-0) 3 hours credit. Prerequisites: CS 2073 and EGR 2503.
Introduction to kinematics and mechanisms, and graphical and linear analytical methods for kinematic synthesis; displacement, velocity, and acceleration analyses of mechanisms; and cam design.

3523 Machine Element Design
(3-0) 3 hours credit. Prerequisites: EGR 3213, ME 3243, and completion of or concurrent enrollment in ME 3513.
Stress and deflection analyses, failure theories, design of machine elements for static and fatigue strength, mechanical springs, and design of welded and bolted connections.

3663 Fluid Mechanics
(3-0) 3 hours credit. Prerequisites: CS 2073, MAT 2213, and EGR 2503. Fluid properties; fluid statics; concepts and equations of fluid flow; similitude; viscous effects; and compressible fluid flow.

4243 Intermediate Materials Engineering
(3-0) 3 hours credit. Prerequisites: ME 3243, 3241, and 3523.
Selected topics in ceramics and polymers; introduction to composites; fracture mechanics and corrosion; engineering design applications in material selection for control of fracture, deflection, wear, and corrosion.

## 4263 Nondestructive Evaluation

(2-3) 3 hours credit. Prerequisites: ME 3243 and 3313.
Defect detection. Materials and defect characterization using nondestructive evaluation methods such as ultrasonics, eddy current, magnetic and electromagnetic methods, radiography, and thermography.

4293 Thermodynamics II
(3-0) 3 hours credit. Prerequisites: ME 3293, and completion of or concurrent enrollment in ME 3663.
Nonreactive and reactive mixtures, vapor and gas power cycles, refrigeration, and compressible flow.

## 4313 Heat Transfer and Rate Processes

(3-0) 3 hours credit. Prerequisites: ME 3293, 3423, and completion of or concurrent enrollment in ME 3663.
Generalized potential distribution and gradients; transient and steady heat conduction; forced and free convection; and radiation, energy, and momentum transfers.

4323 Thermal Systems Design I
(2-2) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in ME 4313.
Application of basic thermodynamics, fluid mechanics, heat transfer and computer methods to the design of heat exchanger systems.

4333 Thermal Systems Design II
(2-2) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in ME 4313.
Design of thermal energy systems; coils, fans, pumps, and filter systems; and automatic control systems.

## 4343 Heating, Air Conditioning, and Refrigeration Design

(2-2) 3 hours credit. Prerequisite: Completion of or concurrent enrollment in ME 4293 and 4313.
Heating, ventilation, and air conditioning of buildings for human comfort or industrial processes; design selection, construction, and operation of air conditioning equipment and refrigeration systems.

## 4353 Gas Dynamics

(3-0) 3 hours credit. Prerequisites: ME 3293 and 3663.
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 Transfer (3-0) 3 hours credit. Prerequisite: ME 4313.
Multidimensional heat conduction, numerical solutions, selected topics in natural convection, boiling and condensation heat transfer, and thermal storage systems.

## 4413 Intermediate Mechanism Design

(3-0) 3 hours credit. Prerequisite: ME 3513.
Linear and nonlinear analytical methods for kinematic synthesis; statics, kinetostatics, and dynamics of mechanisms; design of cam and cam-link mechanisms; case studies; and computer-aided design.

## 4423 Intermediate Machine Element Design

(3-0) 3 hours credit. Prerequisite: ME 3523.
Design of spur, helical, bevel, and worm gearings; design of couplings, clutches, and brakes; design of journal and rolling bearings, belts and chains; and computer-aided design.

4503 Intermediate Dynamics
(3-0) 3 hours credit. Prerequisite: ME 3323.
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

(2-2) 3 hours credit. Prerequisites: ME 3323 and 3423.
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.

4522 Dynamic Systems Control
(1-4) 2 hours credit. Prerequisites: ME 3313, 3323, and 3423.
Introduction to modeling and control of dynamic physical systems; analysis and design of control systems for mechanical, electrical, fluid, and thermal systems. (Formerly ME 3353. Credit cannot be earned for both ME 4522 and ME 3353.)

4533 Mechanical Engineering Design Methodology
(3-0) 3 hours credit. Prerequisites: ME 3323, 3523, 3663, and completion of or concurrent enrollment in ME 4313.
Mechanical systems component design methodology; creative design, analysis, synthesis, selection, and design of components and systems; computer-aided design; and several short design projects. (Formerly ME 3533. Credit cannot be earned for both ME 4533 and ME 3533.)

4603 CAD Methodology
(2-3) 3 hours credit. Prerequisite: ME 3523.
Advanced geometric modeling of mechanical systems and components, design case studies, and finite element applications in mechanical design.

## 4613 Power Systems Design

(2-2) 3 hours credit. Prerequisite: ME 4293.
Application of basic fluid mechanics to the design of turbomachinery, turbines, pumps, compressors, fans, blowers, windmills, and combustion engines.

## 4663 Intermediate Fluid Mechanics

(3-0) 3 hours credit. Prerequisite: ME 3663.
Continuation of ME 3663. Potential flow theory, analysis of laminar and turbulent flows, introduction to boundary layer theory, and application of basic equations to engineering problems.

4703 Computer Applications in Mechanical Engineering
(2-3) 3 hours credit. Prerequisites: ME 3523, 4293, and completion of or concurrent enrollment in 4313.
Application of computers in mechanical and thermal design and software package development. Program development includes fluid flow and mechanical property characterization and heat transfer determination.

## 4723 Reliability and Quality Control in Engineering Design

(3-0) 3 hours credit. Prerequisite: Senior standing in the Division of Engineering.
Introduction to statistical methods in reliability and probabilistic engineering design methodology; statistical quality control and inspection; life prediction and testing, and design optimization.

4802 Mechanical Engineering Senior Laboratory
(0-6) 2 hours credit. Prerequisites: ME 3313, 3523, 4293, and completion of or concurrent enrollment in ME 4313.
An experimental laboratory concerned with fluid statics, fluid flow, heat transfer, internal combustion engines, rotating machinery, and design of experiments.

## 4813 ME Design Project

(2-3) 3 hours credit. Prerequisites: EGR 3713, ME 3523, ME 4293, and ME 4313.
Significant development of instructor-approved individual and/or group design project. Synthesis, modeling, computer-aided analysis, and optimization of an open-ended problem. Industrial cooperation encouraged. Formal presentation of progress and final reports. Considers safety,
reliability, environmental, economic, and other constraints. Ethical and social impacts.

## 4911-3 Independent Study

1-3 hours credit. Prerequisite: Permission in writing (form available) of 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 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 courses may be repeated for credit when topics vary, but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

## DIVISION OF LIFE SCIENCES

The Division offers a Bachelor of Science degree in Biology, with emphases in Molecular Cell Biology and Neurobiology. The B.S. degree in Biology is structured around a comprehensive core curriculum and related offerings in chemistry, physics, and mathematics which 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.

## DIVISIONAL 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 Division 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 grade-point average of 3.0 overall 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 Division Honors program are expected to enroll in Honors Thesis (BIO 4993) during the final two semesters in residence. 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 University Honors or ill addition to University Honors.

## 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 are available in Clinical Laboratory Sciences, Occupational Therapy, and Physical Therapy. Degrees in these three Allied Health programs are awarded jointly.

The preclinical curriculum for Clinical Laboratory Sciences (CLS) includes Core Curriculum requirements, basic science lecture and laboratory courses, and CLS courses. CLS concepts are introduced throughout the curriculum, ending in a senior-year clinical practicum at the Health Science Center. Upon completion of all requirements, the student is eligible to take one of the CLS national certification examinations.

The preprofessional curriculum in Occupational Therapy offers the opportunity for the student to gain a strong background in the life sciences, behavioral sciences, humanities, and special skill areas. Specific application of occupational therapy skills in laboratory and clinical settings occurs in the last two years of a student's program and includes a minimum of six months' approved fieldwork experience. Students who have completed all degree requirements and fieldwork are eligible to take the national examination for registration with the American Occupational Therapy Association.

The preprofessional curriculum in Physical Therapy offers the opportunity for students to use the basic sciences necessary to evaluate and treat human movement disorders. Clinical observation and fieldwork experiences are integrated into the academic preparation during the professional phase of the program. This program is fully accredited by the American Physical Therapy Association and graduates are eligible to take the Physical Therapy licensure examination following successful completion of this joint degree program.

## PREPROFESSIONAL CURRICULUM

Also available are preprofessional courses which offer the students the opportunity to prepare for admission to nursing, medical, dental, and other professional schools.

UTSA offers courses which 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 UT San Antonio. Admission requirements for these professional schools are outlined in a separate section of this catalog. Additional information can be obtained from the Office of the Division of Life Sciences and through the Chairman of the Health Related Professions Advisory Subcommittee of The University of Texas at San Antonio.

## 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 or obtaining such coverage is available from the Director of the Division of Life Sciences.

## BACHELOR OF SCIENCE DEGREE IN BIOLOGY

The minimum number of semester hours required for the Bachelor of Science degree in Biology, including the Core Curriculum requirements, is 126 . All major and support work courses must be completed with a grade of C or better. ${ }^{1}$

All candidates for the degree must complete the following:
A. 48 semester hours in the major, 32 of which must be at the upper-division level:

1. 23 semester hours in biology are required:
$\begin{array}{lll}\text { BIO } & 1203 & \text { Biology I } \\ \text { BIO } & 1212 & \text { Laboratory Investigations in Biology }\end{array}$
[^15]BIO 1212 Laboratory Investigations in Biology
BIO 1223 Biology II
BIO 2313, 2322 Genetics and Laboratory
BIO 3413, 3422 General Physiology and Laboratory
BIO 3513, 3522 Biochemistry and Laboratory
2. 10 semester hours of upper-division biology electives. Two of the following must be completed:

BIO 3143, 3152 Developmental Biology and Laboratory
BIO 3283, 3292 Principles of Ecology and Laboratory
BIO 3713, 3722 Microbiology and Laboratory
BIO 3813, 3822 Cellular Biology and Laboratory
BIO 4433, 4442 Neurobiology and Laboratory
3. 15 additional semester hours of biology electives, 12 of which must be at the upper-division level.
B. 24-25 semester hours of support work:

1. 13 semester hours are required in chemistry:

CHE 1103 Introductory 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 hours of mathematics, to be selected from the following:

MAT 1214 Calculus I
STA 1993 Statistical Methods for the Life and Social Sciences
3. 8 semester hours of physics:

PHY 1603, 1611 General Physics I and Laboratory
PHY 1623, 1631 General Physics II and Laboratory
C. 12 semester hours of free electives.

## UTSA/UTHSC JOINT BACHELOR OF SCIENCE DEGREE IN CLINICAL LABORATORY SCIENCES (CLS)

Certain specific physical skills and abilities are required to successfully participate in the CLS 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 will enroll in classes on both the UTSA and UTHSC campuses.

To enroll in UTHSC courses, students must complete a course card obtainable from both the UTHSC Admissions and Registrar and the Department of Clinical Laboratory Sciences. All CLSC courses are taught at the Health Science Center and are listed separately.

For consideration for admission into the joint degree program, the student 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 hours of college work, an overall GPA of 2.0 , and no grade lower than " 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 Health Science Center 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, the student is 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 hours required for this degree, including the Core Curriculum requirements, is 155 .

All candidates for the degree must complete:
A. 57 semester hours in preprofessional support work:

1. 27 semester 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 |  |
|  | AHS | 3413 | General Physiology |
|  |  | or |  |
| BIO | AHS | 3463 | Human Physiology |
| BIO | 3713, | 3522 | Biochemistry and Laboratory |
| BIO | 4743 | Immunology | Imalogy and Laboratory |
|  |  |  |  |

2. 13 semester hours in chemistry:

| CHE | 1103 | Introductory Chemistry |
| :--- | :--- | :--- |
| CHE | 1303 | Chemical Principles |

## CHE 1312 Inorganic Qualitative and Quantitative Analysis <br> CHE 2203, 2242 Organic Chemistry I and Laboratory

3. 8 semester hours in physics:

PHY 1603, 1611 General Physics I and Laboratory
PHY 1623, 1631 General Physics II and Laboratory
4. 6 semester hours in mathematics:

MAT 1093 Precalculus
STA 1053 Basic Statistics
5. 3 semester hours in computer sciences.
B. 59 semester hours in clinical laboratory sciences, all of which must be completed at UTHSC:

1. These courses are taken prior to clinical training and are integrated with support work taken at UTSA:

CLSC 20351, 20252 Hematology and Laboratory
CLSC 20301, 20202 Parasitology and Urinalysis and Laboratory
CLSC 30361, 30262 Immunochematology and Serology and Laboratory
CLSC 30381, 30282 Clinical Chemistry and Laboratory
CLSC 30333, 30234 Medical Microbiology and Laboratory
2. These courses are the senior lecture and clinical experience courses:
a. Senior Fall

CLSC 40333 Advanced Medical Microbiology
CLSC 40353 Advanced Hematology
CLSC 40587 Chemistry Practicum
CLSC 40567 Immunohematology Practicum
CLSC 40192 Management I
b. Senior Spring

CLSC 40383 Advanced Clinical Chemistry
CLSC 40255 Advanced Immunohematology
CLSC 40557 Hematology Practicum
CLSC 40537 Microbiology Practicum
CLSC 40293 Management II

## POST-BACCALAUREATE CLINICAL LABORATORY SCIENCES CERTIFICATE OPTION

A post-baccalaureate certificate option in Clinical Laboratory Sciences is available. It is designed for students who hold a bachelor's degree in science from an accredited institution. The curriculum includes 59 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 sub-discipline of the clinical laboratory. These certificates are available in Microbiology, Clinical Chemistry, Immunochematology, and Hematology. Students can complete the categorized requirements in $12-18$ 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.

## UTSA/UTHSC JOINT BACHELOR OF SCIENCE DEGREE IN OCCUPATIONAL THERAPY

The program in Occupational Therapy has a joint degree option which is fully accredited by the Committee on Allied Health Education and Accreditation of the American Medical Association in collaboration with the American Occupational Therapy Association (AOTA). Upon completion of this program, students are eligible to complete the certification examination offered by the AOTA, which is necessary for licensure in Texas and most other states.

Admission to the program is made through The University of Texas Health Science Center at San Antonio. Students should seek admission to the professional program only after completing all coursework necessary to meet Core Curriculum as well as preprofessional (support work) requirements for the program. These may be completed at UTSA or another accredited college or university. However, nonUTSA students must be accepted for admission to The University of Texas at San Antonio prior to application to the professional program. Admission to UTSA does not assure admission to the Occupational Therapy program. However, all students are encouraged to be counseled by a member of the occupational therapy faculty at UTHSC or by the UTSA Division of Life Sciences Undergraduate Advisor to ensure enrollment in appropriate preprofessional coursework.

Professional coursework begins in early June of each year and classes are conducted at The University of Texas Health Science Center campus. The professional program involves assignment to facilities in San Antonio and other cities for completion of supervised clinical rotations.

Application for admission to the professional phase of the program must be made by February 1 of the year for which admission is sought. The application process is initiated by contacting:

Allied Health Admissions<br>The University of Texas Health Science Center at San Antonio<br>7703 Floyd Curl Drive<br>San Antonio, Texas 78284<br>210-567-3111

It should be noted that admission to the program in Occupational Therapy is competitive, and admission to UTSA does not guarantee admission into the professional phase of the curriculum.

Students who select the joint degree option should make sure that they have completed both the Core Curriculum requirements and all but 6 hours of non-
science, preprofessional support work requirements prior to June of the year of admission to the professional phase of the Occupational Therapy program. It is the responsibility of the applicant to arrange to have transcripts forwarded to the UTHSC Office of Admissions prior to February l of the year for which application is being made.

The minimum number of semester hours required for this degree, including the Core Curriculum requirements, is 175.

All candidates for the degree must complete:
A. 37-39 semester hours of preprofessional support work:

1. $9-10$ semester hours in the biological sciences:

BIO 1203, 1212 Biology I and Laboratory
AHS 2083, 2091 Human Biology: Anatomy and Laboratory
BIO 2123, 2132 Comparative Anatomy of Vertebrates and Laboratory
2. 4-5 semester hours in chemistry:

CHE 1003, 1011 General Chemistry for Allied Health Sciences or
CHE 1103, 1122 Introductory Chemistry and Laboratory and Laboratory Workshop
3. 6 semester hours in mathematics and statistics:

MAT 1063 College Algebra
STA 1053 Basic Statistics
4. 3 semester hours in physics:

PHY 1603 General Physics I
PHY 1611 General Physics I Laboratory (optional)
5. 3 semester hours in computer sciences.
6. 9 semester hours in psychology:

PSY 2013 Fundamentals of Psychology
PSY 2503 Developmental Psychology (Life Span)
PSY 2513 Abnormal Psychology
7. 3 semester hours in sociology or anthropology.
B. 70 semester hours in the major at the upper-division level. These courses must be completed at The University of Texas Health Science Center at San Antonio:

JUNIOR SUMMER:

| CSBL | 30616 | Gross Anatomy | 6 hours |
| :--- | :--- | :--- | :--- |
| PHYL | 30412 | Human Physiology | 4 hours |
| OCCT | 30105 | Medical Terminology | 1 hour |

JUNIOR FALL:

| OCCT | 30216 | Foundations in OT | 2 hours |
| :--- | :--- | :--- | :--- |
| OCCT | 30204 | Assistive Technology in OT <br> Health and Occupation | 2 hours |
| OCCT | 30401 | 4 hours |  |
| OCCT | 30410 | Human Neurosciences in OT | 4 hours |
| OCCT | 30420 | Biomechanical Approach in OT | 4 hours |

JUNIOR SPRING:

| MEDI | 30414 | Clinical Medicine | 4 hours |
| :--- | :--- | :--- | :--- |
| OCCT | 30325 | Design \& Fabrication | 3 hours |
| OCCT | 30331 | OT in Physical Dysfunction | 3 hours |
| PATH | 30311 | Pathology | 3 hours |
| OCCT | 30171 | Practicum/Physical Dysfunction | 1 hour |
| OCCT | 30391 | Skills Lab/Physical Dysfunction | 3 hours |

SENIOR FALL:
OCCT 40333 OT in Development Dysfunction 3 hours
OCCT $40382 \quad$ Management and Consultation 3 hours

OCCT 40173 Practicum/Developmental Dysfunction 1 hour
OCCT 40393
OCCT 40351 Research in Occupational Therapy 3 hours

SENIOR SPRING:
MEDI 40212 Medical Management in Psychosocial 2 hours
OCCT 40332 OT in Psychosocial Dysfunction 3 hours
OCCT 40172 Practicum/Psychosocial Dysfunction 1 hour
OCCT $40326 \quad$ Clinical Reasoning in OT 3 hours
OCCT 40392 Skills Lab/Psychosocial Dysfunction 3 hours
OCCT 40127
Geriatric Issues in OT 1 hour
C. 36 semester hours of fieldwork, to be completed at selected clinical sites affiliated with The University of Texas Health Science Center at San Antonio (an additional fieldwork placement course, OCCT 40876, is optional):

| OCCT | 41271 | Fieldwork/Physical Dysfunction | 12 hours |
| :--- | :--- | :--- | :--- |
| OCCT | 41272 | Fieldwork/Psychosocial Dysfunction | 12 hours |
| OCCT | 41273 | Fieldwork/Specialty Area | 12 hours |

## UTSA/UTHSC JOINT BACHELOR OF SCIENCE DEGREE IN PHYSICAL THERAPY

The program in Physical Therapy has a joint degree option which is fully accredited by the Committee on Accreditation of the American Physical Therapy Association. Upon completion of this four-year program, students are eligible to take the licensure examination offered by the Professional Examination Service, which is required for practice in Texas. For practice in other states, the appropriate State Licensing Board must be contacted.

The professional phase of this program is taken at The University of Texas Health Science Center at San Antonio, and begins in the summer of the student's junior year.

Application to the program must be made by October 1 prior to the summer in which the student wishes to be admitted. This application process is initiated by writing to:

Allied Health Admissions<br>The University of Texas Health Science Center at San Antonio 7703 Floyd Curl Drive<br>San Antonio, Texas 78284<br>$$
210-567-3150
$$

It should be noted that admission to the program in Physical Therapy is competitive, and admission to UTSA does not guarantee admission into the professional phase of the curriculum.

Each student who selects the joint degree option is expected to complete all Core Curriculum requirements for grad-uation from UTSA, as well as program prerequisites for Physical Therapy, by August of the year prior to admission to the professional phase of the Physical Therapy program. The minimum number of semester hours required for this degree, including the Core Curriculum requirements, is 161 .

All candidates for the degree must complete the following major and support work:
A. $\quad 38-40$ semester hours of support work:

1. 8-10 semester hours of biological sciences:

| AHS 2083, 2091 | Human Biology: Anatomy and Laboratory <br> or |
| :--- | :--- | :--- |
| BIO 2123, 2132 Comparative Anatomy of Vertebrates and |  |
| And |  |

2. $\mathbf{8 - 1 0}$ semester hours of chemistry with labs:

CHE 1003, 1011 General Chemistry for AHS and Laboratory or
CHE 1103, 1122 Introduction to Chemistry and Laboratory
And
CHE 1203, 1211 Elementary Organic and Biochemistry and Laboratory or
CHE 1303, 1312 Chemical Principles and Inorganic Qualitative and Quantitative Analysis
3. 8 semester hours of physics with labs:

PHY 1603, 1611 General Physics I and Laboratory
PHY 1623, 1631 General Physics II and Laboratory
4. 6 semester hours of mathematics:

MAT 1063 College Algebra (or higher)
STA 1053 Basic Statistics (or 1063, 1073)
5. 6 semester hours of behavioral/social sciences:

PSY 2013 Fundamentals of Psychology
SOC 1013 Introduction to Sociology
B. 66-68 semester hours in the major at the upper-division level. These courses must be completed at The University of Texas Health Science Center:

JUNIOR SUMMER:

| CSBL | 30616 | Gross Anatomy | 6 hours |
| :--- | :--- | :--- | :--- |
| PHYT | 30419 | Ergonomics/Work Biology | 4 hours |
| PHYT | 30313 | PT Patient Care \& Application | 3 hours |

JUNIOR FALL:
INTD 30474 Kinesiology 4 hours
INTD 30345 Applied for PT Neuroscience 4 hours
$\begin{array}{ll}\text { PHYT } 30321 & \text { Introduction to Therapeutic Exercise I } \\ \text { \& Application }\end{array}$
PHYT 30315 PT Evaluation \& Documentation 3 hours
PHYT 30235 Physical Agents \& Application for PT 2 hours
PHYT 30202 Junior Clinical I 2 hours
JUNIOR SPRING:
MEDI 30411 Clinical Medicine I 4 hours
PATH 30311 Pathology 3 hours
PHYT 30422 Clinical Orthopedics 4 hours
PHYT 30236 Clinical Electrotherapy \& Application for PT 2 hours
PHYT 30208 Orthotics \& Prosthetics for PT 2 hours
PHYT 30203 Junior Clinical II 2 hours

SENIOR SUMMER:
PHYT 40140 Gerontological Issues 1 hour

PHYT 40216 Cardiopulmonary PT 2 hours
PHYT 40226 Principles of Neurological Assessment 2 hours
PHYT 40292 Selected PT Topics 2 hours
PHYT 40294 Research Methodology 2 hours

## SENIOR FALL:

PHYT 40093 Independent Studies 1-3 hours
PHYT 40227 Pediatric PT 2 hours

PHYT 40383 Administration of Management 3 hours
PHYT 40428 PT Management of the Adult Neurological Patient 4 hours
C. 22 semester hours of senior clinical coursework, to be completed at selected sites affiliated with UTHSCSA. Senior Clinical I is completed in the Senior Fall semester and Senior Clinical II in the Senior Spring:

| PHYT | 40671 | Senior Clinical I | 6 hours |
| :--- | :--- | :--- | :--- |
| PHYT | 41672 | Senior Clinical II | 16 hours |

## 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 hours ( 2 years) of prenursing course requirements, which are available at The University of Texas at San Antonio. 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 hours of courses in the nursing major through either the Generic Process or Flexible Process track at UTHSCSA School of Nursing. The minimum number of semester hours required for this degree is 120 .

Admission into Phase I must be made through The University of Texas at San Antonio. Admission into Phase II must be made through The University of Texas Health Science Center at San Antonio. Students who have completed 40-45 hours of Phase I courses may request an Application for Admission from Nursing Admissions at UTHSCSA. Questions about Phase I Prenursing Course Requirements and requests for admissions applications should be addressed to:

Nursing Admissions<br>Office of Student Services<br>UTHSCSA<br>7703 Floyd Curl Drive<br>San Antonio, Texas 78284-7702<br>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 GPA of 2.0 and a GPA of 2.3 in prenursing course requirements in order
to be considered for admission. Students with higher GPAs will be more competitive.

Applicants must have passed all sections of the Texas Academic Skills Program (TASP) test and 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 hours of prerequisite courses and have been formally accepted by UTHSC.

Students admitted to the School of Nursing must be certified in cardiopulmonary resuscitation (CPR) prior to registration.

Phase I: 60 hours at UTSA. All courses are subject to approval by the School of Nursing when the student applies for Phase II.
A. 21-26 semester hours of natural and physical sciences:

AHS 2083, 2091 Human Biology: Anatomy and Laboratory*
AHS 2103, 2111 Human Biology: Physiology and Laboratory*
AHS 1053, 1061 Introductory Microbiology (Laboratory strongly recommended)*
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 AHS courses.
B. 15 semester hours in the behavioral sciences:

1. PSY 2013 Fundamentals of Psychology

PSY 2503 Developmental Psychology
SOC 1013 Introduction to the Study of Society
2. 6 semester hours of electives.
C. 24 semester hours in other basic requirements:

1. 6 required semester hours:

AHS 2043 Nutrition
STA 1053 Basic Statistics (or 1063 or 1073)
2. 18 semester hours of UTSA Core Curriculum requirements (for a listing of the courses which will fulfill these requirements, see the Bachelor's Degree Regulations chapter of this catalog).

Rhetoric
American History
Political Studies

Phase II: One of the following plans, completed at UTHSC:
A. Generic Plan

The following lists the courses in the Generic Process Program Plan. This plan may be taken on a full-time or part-time basis but must be completed within four years of initial enrollment in Phase II of the nursing program.

FIRST SEMESTER, JUNIOR YEAR:
NURS 30209 Introduction to Professional Nursing 2 hours
NURS 30310 Nursing and Drug Therapy 3 hours
$\begin{array}{ll}\text { NURS } 30911 & \begin{array}{l}\text { Nursing of Individuals with Deviations } \\ \text { in Health Status }\end{array}\end{array}$
SECOND SEMESTER, JUNIOR YEAR:
NURS 30912 Nursing of Families: Childbirth, Parenting, Illness 9 hours
NURS 30522 Nursing the Client with Mental Illness 5 hours
THIRD SEMESTER, SENIOR YEAR:
NURS 40203 The Nurse as a Professional 2 hours
NURS 40523 Nursing of Clients with Chronic Health Problems 7 hours
NURS 40513 Community Health Nursing 5 hours
FOURTH SEMESTER, SENIOR YEAR:

| NURS 40704 | Nursing the Client with Major |  |
| :---: | :---: | :---: |
|  | Problems | 7 hours |
| NURS 40504 | The Nurse as Manager and Leader | 5 hours |
| Upper-Division | Three hours of electives must be in |  |
| Electives | nursing | 9 hours |

B. Flexible Plan

Only students with prior 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 those courses, contact The University of Texas Health Science Center School of Nursing.

## FIRST SEMESTER:

NURS 30925 Nursing of Adults with Health Problems 9 hours
NURS 30926 Nursing of Children and Childbearing
NURS 30327 Nursing of Clients with Alteration in
$\begin{array}{lll} & \text { Mental Health } & 3 \text { hours } \\ \text { NURS } 30624 & \text { Nursing Practice: Clinical Skills } & 6 \text { hours }\end{array}$

SECOND SEMESTER:
NURS 40212 Professional Nursing: Health Assessment 2 hours
NURS 40512 Professional Nursing: Health Promotion 5 hours
NURS 40504 The Nurse as a Manager and Leader 5 hours
THIRD SEMESTER:
NURS 40213 Professional Nursing: Issues and Ethics 2 hours
NURS 40413 Professional Nursing: Family Focus 4 hours
NURS 40513 Community Health Nursing 5 hours
Upper-Division Three semester hours of electives must
Electives
9 hours

## 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
(3-0) 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 (3-0) I 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.
4783 Pathogenic Microorganisms
(3-0) 3 hours credit. Prerequisites: BIO 3713 and 3722.
A consideration of medically important microorganisms and their interaction with animal and human hosts.

4792 Pathogenic Microorganisms Laboratory (0-6) 2 hours credit.

## COURSE DESCRIPTIONS BIOLOGY <br> (BIO)

1023 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. May apply toward the Level I Core Curriculum requirement in science. (Formerly BIO 2003. Credit cannot be earned for both BIO 1023 and BIO 2003.) [TCCN: BIOL 2303.]

## 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 science. (Formerly BIO 3023. Credit cannot be earned for both BIO 1033 and BIO 3023.)

## 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 for either of the former courses BIO 1013 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. May apply toward the Level I Core Curriculum requirement in science. (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. Prerequisite: STA 1053 or an equivalent
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.

2123 Comparative Anatomy of Vertebrates
(3-0) 3 hours credit. Prerequisites: BIO 1203 and 1212.
A detailed study of anatomical differences and similarities of vertebrates with reference to evolutionary changes. Concurrent enrollment in BIO 2132 is recommended.

2132 Comparative Anatomy of Vertebrates Laboratory (0-6) 2 hours credit.
Concurrent enrollment in BIO 2123 is recommended.

## 2313 Genetics

(3-0) 3 hours credit. Prerequisites: BIO 1203, 1223, and 1212, and CHE 1103 or an equivalent.
Principles governing transmission of hereditary factors in plants and animals, with emphasis on molecular biochemical and population genetics. Concurrent enrollment in BIO 2322 is recommended. [TCCN: BIOL 2316.]

## 2322 Genetics Laboratory

(0-6) 2 hours credit. Optional for non-majors.
Concurrent enrollment in BIO 2313 is recommended.
3003 Introduction to Oceanography
(3-0) 3 hours credit. Prerequisites: BIO 1203, 1223, and 1212.
General oceanography, with emphasis on biological aspects and living 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.

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.

## 3143 Developmental Biology

(3-0) 3 hours credit. Prerequisites: BIO 1203, 1223, and 1212.
Sequential analysis of development in vertebrates and the factors which affect fertilization, organogenesis, and implantation. Concurrent enrollment in BIO 3152 is recommended.

3152 Developmental Biology Laboratory (0-6) 2 hours credit.
Concurrent enrollment in BIO 3143 is recommended.

## 3163 Histology and Cytology

(3-0) 3 hours credit. Prerequisites: BIO 1203, 1223, and 1212.
The cytological and histological aspects of cellular organization. Concurrent enrollment in BIO 3172 is recommended.

3172 Histological and Cytological Laboratory
(0-6) 2 hours credit.
Concurrent enrollment in BIO 3163 is recommended.

## 3213 Animal Behavior

(3-0) 3 hours credit. Prerequisites: BIO 1203, 1223, and 1212. A detailed study of animal behaviors and their biological determinants.

## 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 will be included as 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.
A study of the interaction of organisms with their environment, with focus on ecological principles, adaptations of organisms, environmental
pollution, and principles of conservation. Concurrent enrollment in BIO 3292 is recommended for biology majors. May apply toward the Level II Core Curriculum requirement in science.

3292 Principles of Ecology Laboratory
(0-6) 2 hours credit.
A field-oriented course emphasizing modern ecological techniques, including examinations of plant and animal populations and measurement of selected chemical and physical parameters. Concurrent enrollment in BIO 3283 is recommended.

## 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 study of the life histories and phylogenetic relationships of vascular and non-vascular plants. Concurrent enrollment in BIO 3351 is recommended.

## 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, CHE 1303, and PHY 1623. MAT 1093 is also recommended.
Fundamental properties and processes in living systems. Concurrent enrollment in BIO 3422 is recommended. (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.)

3513 Biochemistry
(3-0) 3 hours credit. Prerequisites: CHE 2203 and 2242; BIO 2313 is also recommended.
Introduction to biochemistry: amino acids, protein structure, enzyme action, lipids, saccharides, metabolism, nucleic acids, and molecular biology. Concurrent enrollment in BIO 3522 is recommended.

3522 Biochemistry Laboratory
(0-6) 2 hours credit.
Basic biochemical laboratory techniques: titration, protein purification, enzyme kinetics, chromatography, electrophoresis, and centrifugation. Concurrent enrollment in BIO 3513 is recommended.
(3-0) 3 hours credit. Prerequisite: BIO 2313 or consent of instructor. A study of the biological effects of ionizing and non-ionizing radiation, cellular repair mechanisms, and medical applications of radiation. Concurrent enrollment in BIO 3542 is recommended.

## 3542 Radiation Biology Laboratory

(0-6) 2 hours credit.
Concurrent enrollment in BIO 3533 is recommended.
3613 The Biology of Aging
(3-0) 3 hours credit. Prerequisites: BIO 1203 and 1223.
The biological principles of human life and health; the changes which occur with aging and their implications for the lives of students and their families.

3633 Human Environmental Physiology
(3-0) 3 hours credit. Prerequisites: BIO 3413 or AHS 2103.
Adaptive physiological responses to unusual environmental conditions.

## 3713 Microbiology

(3-0) 3 hours credit. Prerequisites: BIO 2313 and CHE 2203.
A comprehensive study of microorganisms, including their composition, morphology, growth, metabolism, classification, ecology, and significance in disease. Concurrent enrollment in BIO 3722 is recommended. (Credit cannot be earned for both AHS 1053 and BIO 3713.)

3722 Microbiology Laboratory
(0-6) 2 hours credit.
Concurrent enrollment in BIO 3713 is recommended. (Credit cannot be earned for both AHS 1061 and BIO 3722.)

## 3733 Industrial Microbiology

(3-0) 3 hours credit. Prerequisites: BIO 3713 and 3722.
A study of genetic engineering of industrial microorganisms, industrial fermentation methodologies, quality control, and biotransformations used for the microbial manufacture of foods, beverages, antibiotics, enzymes, single-cell proteins, and industrial chemicals.

3813 Cellular Biology
(3-0) 3 hours credit. Prerequisite: BIO 3413 or 3513.
A study of cellular function with relation to structure, from the microscopic to molecular level. Concurrent enrollment in BIO 3822 is recommended.

3822 Cellular Biology Laboratory
(0-6) 2 hours credit.
Concurrent enrollment in BIO 3813 is recommended.
4023 Environmental Toxicology
(3-0) 3 hours credit. Prerequisite: BIO 3413 or 3513.
Environmental toxicants will be studied in terms of bioavailability, bioaccumulation, biodegradation, toxicity, and physiological processes.

## 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 will be included, as well as examinations of desert climatic patterns, geology, and natural history. Lecture, laboratory, and fieldwork will be included.

4073 Law, Ethics, and the Life Sciences
(3-0) 3 hours credit. Prerequisites: BIO 1203, 1223, and 1212, 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.

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.

4203 Plant Ecology
(3-0) 3 hours credit. Prerequisite: BIO 3283, 3292, or consent of instructor.
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. Concurrent enrollment in BIO 4221 is recommended.

4221 Plant Ecology Laboratory
(0-3) 1 hour credit.
A course providing the opportunity for field-oriented study to examine qualitative and quantitative methods to evaluate plant communities. Concurrent enrollment in BIO 4203 is recommended.

4233 Field Biology
(3-0) 3 hours credit. Prerequisites: BIO 1203, 1223, and 1212, or consent of instructor.
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. Concurrent enrollment in BIO 4241 is recommended.

4241 Field Biology Laboratory
(0-3) 1 hour credit.
A field-oriented course offering the opportunity for practical experience observing, collecting, and identifying Texas plants and animals. Concurrent enrollment in BIO 4233 is recommended.

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.
Application of recombinant DNA techniques to the study of animals and plants in industry, medicine, and research. Concurrent enrollment in BIO 4352 is recommended.

## 4352 Molecular Genetics Laboratory

(0-6) 2 hours credit. Prerequisites: BIO 2313 and 2322.
A laboratory course emphasizing techniques for cloning, sequencing, and analyzing recombinant DNA molecules. Concurrent enrollment in BIO 4343 is recommended.

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.
Anatomy and physiology of nervous systems; the mechanisms of neuronal functions. Concurrent enrollment in BIO 4442 is recommended.

4442 Neurobiology Laboratory
(0-6) 2 hours credit.
A laboratory course emphasizing principles presented in BIO 4433. Concurrent enrollment in BIO 4433 is recommended.

4453 Endocrinology
(3-0) 3 hours credit. Prerequisites: BIO 3413, 3422, 3513, and 3522.
A consideration of the physiological effects of hormones on the organism in health and disease, together with a study of the gross and microscopic morphology of the glands of internal secretion. Concurrent enrollment in BIO 4462 is recommended.

4462 Endocrinology Laboratory
(0-6) 2 hours credit.
A laboratory course emphasizing principles presented in BIO 4453. Concurrent enrollment in BIO 4453 is recommended.

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.

## 4603 Plant Physiology

(3-0) 3 hours credit. Prerequisites: BIO 3343 and 3351, and CHE 2203 and 2242.
Principles of organization of cellular activity and molecular structure of protoplasm; includes nutrition, translocation, mineral metabolism, respiration, and photosynthesis. Concurrent enrollment in BIO 4611 is recommended.

4611 Plant Physiology Laboratory
(0-3) I hour credit.
A course providing qualitative and quantitative experiments in the study of plant physiology. Concurrent enrollment in BIO 4603 is recommended.

4723 Virology
(3-0) 3 hours credit. Prerequisite: BIO 3713.
A study of the diversity of viruses and biochemical mechanisms for their replication. Concurrent enrollment in BIO 4731 is recommended.

4731 Virology Laboratory
(0-3) 1 hour credit.
Concurrent enrollment in BIO 4723 is recommended.
4743 Immunology
(3-0) 3 hours credit. Prerequisites: BIO 3513 and 3522, or 3713 and 3722.

A study of the properties of antigens and antibodies and current concepts of humoral and cell-mediated immunity and the cells involved. Concurrent enrollment in BIO 4752 is recommended.

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.
A study of the animal parasites of humans and related hosts, with emphasis on their epidemiology, life cycles, pathology, and control. Concurrent enrollment in BIO 4772 is recommended.

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

1-3 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 hours, regardless of discipline, will apply to a bachelor's degree.

## 4953 Special Studies in Biology

(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 courses may be repeated for credit when the topics vary,
but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

## 4963 Seminar in Biology

(3-0) 3 hours credit. Prerequisite: Minimum of 20 hours in biological sciences.
An undergraduate seminar which surveys 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 hours may be applied to a bachelor's degree.

## 4993 Honors Research

3 hours credit. (Hours arranged) Prerequisites: 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.

## DIVISION OF MATHEMATICS, COMPUTER SCIENCE, AND STATISTICS

The Division offers a Bachelor of Science degree in Computer Science and a Bachelor of Science degree in Mathematics. The B.S. degree in Mathematics offers a concentration in Mathematics, a concentration in Statistics, or a concentration in General Mathematical Studies. The Division also offers minors in Computer Science, Mathematics, and Statistics.

## BACHELOR OF SCIENCE DEGREE IN COMPUTER SCIENCE

The Bachelor of Science degree in Computer Science requires a minimum of 126 semester hours, including the Core Curriculum requirements.

All majors in computer science are required to complete all required and elective CS courses with a grade of " C " or better.

All candidates for the Bachelor of Science degree in Computer Science must complete the following:
A. 68 semester hours of required courses (including the 12 hours of Core Curriculum requirements in science, computer science, and mathematics):

| CS | 1714 | Introduction to Computer Science |
| :--- | :--- | :--- |
| CS | 1774 | Data Structures I |
| CS | 2413 | Systems Programming |
| CS | 2514 | Computer Organization I |
| CS | 2734 | Computer Organization II |
| CS | 3233 | Discrete Mathematical Structures |
| CS | 3323 | Topics in Programming Languages |
| CS | 3343 | Analysis of Algorithms |
| CS | 3733 | Operating Systems |
| CS | 3743 | Data Base Management |
| CS | 3773 | Software Engineering |
| CS | 4753 | Computer Architecture |
| MAT | 1214 | Calculus I* |
| 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 |

*The student who is not prepared to begin MAT 1214 must take MAT 1093: Precalculus.
B. 12 semester hours of upper-division computer science courses (not to include CS 3073, 3133, or 4103).
C. 4 semester hours of electives.

## MINOR IN COMPUTER SCIENCE

All students pursuing the minor in Computer Science must complete 21 semester hours:
A. 15 hours of required courses:

| CS | 1714 | Introduction to Computer Science |
| :--- | :--- | :--- |
| CS | 1724 | Data Structures |
| CS | 2413 | Systems Programming |
| CS | 2514 | Computer Organization I |

B. 6 hours of approved upper-division computer science electives.

To declare a minor in Computer Science, to obtain advice, or to seek approval of substitutions for course requirements, students should consult the Undergraduate Advisor of Record in the Division of Mathematics, Computer Science, and Statistics.

## COURSE DESCRIPTIONS COMPUTER SCIENCE (CS)

1073 Introductory Computer Programming for Scientific Applications (3-0) 3 hours credit. Prerequisite: MAT 1063.
Introductory programming. Sorting and ranking, plotting, numerical taxonomy, solution of non-linear equations, linear regression, and solution of linear systems. May not be applied toward a major in Computer Science.

## 1714 Introduction to Computer Science

(3-2) 4 hours credit. Prerequisite: MAT 1093.
Introduction to basic concepts of computer science. Functional components of computers, data representation, problem solving methods, algorithm development, and programming using a high-level programming language. (Formerly CS 1711 and CS 1713. Credit cannot be earned for both CS 1714 and either CS 1711 or CS 1713.)

## 1724 Data Structures

(3-2) 4 hours credit. Prerequisites: CS 1714 and MAT 1214.
Abstract data structures (stacks, queues, lists, trees), primitive operations, and methods of data representation. Dynamic memory allocation, pointers, and recursion, sorting, and searching. (Formerly CS 1723. Credit cannot be earned for both CS 1724 and CS 1723.)

## 2033 Fundamentals of Computer Concepts

(3-0) 3 hours credit. Prerequisite: Sophomore or higher classification.
An introduction to computers and information processing for those with no previous background; a study of the computer, its uses and social impact; introduction to computer programming. Credit cannot be earned for both CS 1043 (formerly offered) and CS 2033. May not be applied toward a major in the Division of Mathematics, Computer Science, and Statistics.

## 2073 Computer Programming With Engineering Applications

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

2083 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, email, spreadsheets, data bases, authoring packages, multimedia and hypertext applications, presentation graphics, and legal/ethical issues. May not be applied toward a major in Computer Science.

2133 Microcomputer Programming
(3-0) 3 hours credit. Prerequisite: CS 2083.
Programming topics using the Pascal language. May not be applied toward a major in the Division of Mathematics, Computer Science, and Statistics.

2413 Systems Programming
(3-0) 3 hours credit. Prerequisite: CS 1724.
A study of systems-level programming in a specific system (at present, Unix).

## 2514 Computer Organization I

(3-2) 4 hours credit. Prerequisite: CS 1724.
Introduction to theoretical concepts of digital logic design.

## 2734 Computer Organization II

(3-2) 4 hours credit. Prerequisite: CS 2514.
Assembly language programming and computer organization.

## 3073 Computer Graphics and Numerical Techniques

(3-0) 3 hours credit. Prerequisites: CS 2073 and MAT 3253.
Computer graphics, numerical analysis, and advanced programming techniques, with applications to engineering problems. May not be applied toward a major in the Division of Mathematics, Computer Science, and Statistics.

## 3133 Computers and Society

(3-0) 3 hours credit. Prerequisite: Either CS 1073, 1714, 2033, 2073, 2083, or consent of instructor.
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 1724 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.

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.

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 3233 and 3323.
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 2734, 2413, 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 Data Base Management
(3-0) 3 hours credit. Prerequisites: CS 2413 and 3233.
Study of systems for management of large amounts of related data. Basic concepts, implementation approaches, user data models, and commercially available systems.

3773 Software Engineering
(3-0) 3 hours credit. Prerequisites: CS 3323 and 3343.
Software development (analysis, specifications, design, implementation, and testing). Design methodologies and programming standards. Development project in small groups, including acceptance test.

## 3793 Introduction to Artificial Intelligence

(3-0) 3 hours credit. Prerequisites: CS 3323 and 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 data bases, 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.

4633 Simulation
(3-0) 3 hours credit. Prerequisites: CS 3233 and STA 3513.
Construction and use of simulation models on a digital computer. Monte Carlo techniques and associated statistical methods.

## 4713 Compiler Writing

(3-0) 3 hours credit. Prerequisites: CS 2734, 3323, 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. Prerequisite: CS 3733.
An investigation of the major concepts of computer architecture, including the central processing unit, main memory, and peripheral devices.

## 4803 Microprocessor Laboratory

(1-4) 3 hours credit. Prerequisites: CS 2514 and 2734.
Principles of large-scale integration and very large-scale integration.
Topics include the organization and systems architecture of state-of-theart microprocessors, and the integration of microprocessors with randomaccess memory, programmable read-only memory, peripheral controllers, and I/O devices. (Formerly SD 4803. Credit cannot be earned for both CS 4803 and SD 4803.)

## 4853 Computer Interfaces

(3-0) 3 hours credit. Prerequisite: CS 2734.
Basic characteristics and design considerations of printer, tape, and disk controllers, multiplexers, and other devices for computer communications and teleprocessing. (Formerly SD 4853. Credit cannot be earned for both CS 4853 and SD 4853.)

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.
Scheduled and impromptu presentations on subjects of interest presented by division faculty and visiting lecturers. May be repeated for credit, but no more than 3 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, 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. For students desiring specialized work. May be repeated for credit, but not more than 6 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 courses may be repeated for credit when topics vary, but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

## 4993 Honors Research

(3-0) 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.

## BACHELOR OF SCIENCE DEGREE IN MATHEMATICS

The Bachelor of Science degree in Mathematics is offered with three concentrations: Mathematics, Statistics, or General Mathematical Studies.

The minimum number of semester hours required for this degree, including the Core Curriculum requirements, is 126 . Thirty-nine of the total semester hours required for the degree must be at the upper-division level.

Students choosing the concentration in General Mathematical Studies should satisfy the Core Curriculum requirements consistent with the Texas Teacher Certification Program.

All majors in Mathematics must complete all required and elective MAT and STA courses with a grade of " C " or better.

All candidates for the Bachelor of Science degree in Mathematics, regardless of concentration, must complete the following 28-29 semester hours of required courses (this includes the 6 hours of Core Curriculum requirements in mathematics and computer science):

CS 1073 Introductory Computer Programming for Scientific Applications or
CS 1714 Introduction to Computer Science or
CS 2073 Computer Programming with Engineering Applications
MAT 1214 Calculus I*
MAT 1223 Calculus II
MAT 2213 Calculus III
MAT 2233 Linear Algebra
MAT 3213 Foundations of Analysis
MAT 4213 Real Analysis I
STA 3513 Probability and Statistics
STA 3523 Statistical Methods
*The student who is not prepared to begin MAT 1214 must take MAT 1093: Precalculus.

In addition, a candidate for the Bachelor of Science degree in Mathematics must complete the course requirements for the concentration declared by the candidate.

## Concentration in Mathematics:

A. 15 semester 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 hours of upper-division courses in mathematics, computer science, or statistics, to be approved by the student's advisor.
C. 28-29 semester hours of electives.

## Concentration in Statistics:

A. $\quad 18$ semester hours of required courses:

MAT 3633 Numerical Analysis
STA 3013 Multivariate Analysis for the Life and Social Sciences
STA 3433 Applied Non-Parametric Statistics
STA 4643 Introduction to Stochastic Processes
STA 4713 Applied Regression Analysis
STA 4723 Design and Analysis of Experiments
B. 9 additional semester hours of approved courses in the Division. At least 6 of these must be upper-division.
C. 22-23 semester hours of electives.

## Concentration in General Mathematical Studies:

A. 15 semester hours of mathematics and/or statistics:

1. 9 semester hours of mathematics:

MAT 3233 Modern Algebra
MAT 4113 Computer Mathematical Topics
MAT 4263 Geometry
2. 6 approved upper-division semester hours in mathematics or statistics.
B. 6 semester hours of required academic foundations:

COM 1043 Introduction to Communication
3 semester hours of English literature.
C. 28-29 semester 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 hours of upper-division MAT or STA courses approved by the Undergraduate Advisor of Record.

Certification requirements for students pursuing the concentration in General Mathematical Studies 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 at the Office of Teacher Certification and Placement at UTSA.

## MINOR IN MATHEMATICS

All students pursuing the minor in Mathematics must complete 22 semester hours:
A. 16 hours of required courses:

MAT 1214 Calculus I
MAT 1223 Calculus II
MAT 2213 Calculus III
MAT 2233 Linear Algebra
MAT 3613 Differential Equations
B. 6 hours of approved upper-division mathematics electives.

To declare a minor in Mathematics, to obtain advice, or to seek approval of substitutions for course requirements, students should consult the Undergraduate Advisor of Record in the Division of Mathematics, Computer Science, and Statistics.

# COURSE DESCRIPTIONS MATHEMATICS <br> (MAT) 

## 0103 TASP Review

(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 The University of Texas at San Antonio.

## 0113 Elemental Algebra

(3-0) 3 hours credit.
Introductory algebra course which includes the Texas Academic Skills Program (TASP) Algebra objectives. Operations with algebraic expressions; solve one- and two-variable equations; solve word problems involving one and two variables; graphing numbers and number relationships; solve problems involving quadratic equations. Course does not count toward any degree at The University of Texas at San Antonio.

## 0121 Elemental Geometry

(1-0) 1 hour credit.
Introductory course which includes the Texas Academic Skills Program (TASP) Geometry objectives. Solve problems with two- and threedimensional geometric figures; solve problems involving right triangles using the Pythagorean Theorem; apply reasoning skills using the principles of similarity, congruence, parallelism, and perpendicularity; and inductive and deductive reasoning. Course does not count toward any degree at The University of Texas at San Antonio.

## 0131 Independent TASP Review

(1-0) 1 hour credit.
The opportunity to work with Self-Paced Instructional Modules or a Computerized Instructional Program to review concepts for the Texas Academic Skills Program (TASP) test. An individualized prescriptive program for each student will be developed by the TASP Mathematics Coordinator. Course does not count toward any degree at The University of Texas at San Antonio.

## 0133 Independent TASP Review

(3-0) 3 hours credit.
The opportunity to work at greater depth with Self-Paced Instructional Modules or a Computerized Instructional Program to review concepts for the Texas Academic Skills Program (TASP) test. An individualized prescriptive program for each student will be developed by the TASP Mathematics Coordinator. Course does not count toward any degree at The University of Texas at San Antonio.

## 1013 Fundamentals of Algebra

(3-0) 3 hours credit.
Real numbers, linear equations and inequalities, absolute inequalities, factorization of polynomials, rational expressions, negative and rational exponents, scientific notation, radicals, quadratic equations and inequalities, Cartesian coordinates, relations, and functions and graphing of functions.

1033 Algebra with Calculus for Business
(3-0) 3 hours credit. Prerequisites: MAT 1013 or an equivalent course or placement.
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; and differentiation and integration. [TCCN: MATH 1325.]

1063 College Algebra
(3-0) 3 hours credit. Prerequisite: MAT 1013 or an equivalent course or placement.
Algebraic expressions; equations, inequalities over the real numbers, relations, functions, polynomial and rational functions, systems of linear equations and inequalities, matrices and determinants, complex numbers, polynomials, sequences, series, binomial expansion, mathematical induction, permutations, and combinations. [TCCN: MATH 1314.]

1093 Precalculus
(3-0) 3 hours credit. Prerequisite: MAT 1063 or an 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 1063.
Numeration systems; properties of the systems of whole numbers, integers, rational numbers and real numbers; problem solving, geometry and measurement; probability and statistics; and logic. May not be applied toward a major in the Division of Mathematics, Computer Science, and Statistics. [TCCN: MATH 1335.]

## 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.
A survey of geometric concepts, including axiomatic developments of advanced Euclidean geometry, coordinate geometry, non-Euclidean geometry, 3-dimensional geometry, and topology. May not be applied toward a major in the Division of Mathematics, Computer Science, and Statistics other than the General Mathematical Studies concentration of the B.S. degree in Mathematics.

## 3213 Foundations of Analysis

(3-0) 3 hours credit. Prerequisites: MAT 2213 (2243 recommended).
Rigorous development of the foundations of real analysis; basic point set topology in $\mathrm{R}^{1}$ and $\mathrm{R}^{\mathrm{n}}$; compactness; connectedness; convergence; and cardinality. Emphasis on theorem proving and mathematical rigor.

## 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.
Topics will include the development of groups, integral domains, fields, and number systems including the complex numbers. Divisibility, congruences, primes, perfect numbers, and some other problems of number theory will be considered.

## 3243 Calculus for Applications

(3-0) 3 hours credit. Prerequisite: MAT 2233.
Line vector differential and integral calculus, line integrals, Green's theorem, Stokes' theorem, and Divergence theorem.

3253 Engineering Analysis I
(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 the Division of Mathematics, Computer Science, and Statistics.

3263 Engineering Analysis II
(3-0) 3 hours credit. Prerequisite: MAT 3253.
Fourier series, partial differential equations, vector calculus, linear difference equations, Z-transforms, and complex analysis. May not be applied to a major in the Division of Mathematics, Computer Science, and Statistics.

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, $\mathrm{n}^{\text {th }}$ order initial value problems, and power series solutions of differential equations.

3623 Differential Equations II
(3-0) 3 hours credit. Prerequisite: MAT 3613.
Continuation of MAT 3613. Stability, partial differential equations, and boundary value problems.

3633 Numerical Analysis
(3-0) 3 hours credit. Prerequisites: MAT 2233 and either CS 1073 or CS 1714.

Solution of linear and non-linear equations, curve-fitting, and eigenvalue problems.

## 4113 Computer Mathematical Topics

(3-0) 3 hours credit. Prerequisites: MAT 3233 and either 3123 or 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 the BASIC programming language. May not be applied toward a major in the Division of Mathematics, Computer Science, and Statistics other than the General Mathematical Studies concentration of the B.S. degree in Mathematics.

## 4123 History of Mathematics

(3-0) 3 hours credit. Prerequisites: MAT 3233 and either 3123 or 4263. Selected subjects in mathematics developed through historical perspectives and biographies. May not be applied toward a major in the Division of Mathematics, Computer Science, and Statistics other than the General Mathematical Studies concentration of the B.S. degree in Mathematics.

## 4213 Real Analysis I

(3-0) 3 hours credit. Prerequisite: MAT 3213.
An in-depth study of the calculus of functions of a single real variable; pointwise convergence, continuity, uniform convergence, differentiation,
functions of bounded variation, Riemann-Stieltjes integration, and interchange of limits.

4223 Real Analysis II
(3-0) 3 hours credit. Prerequisite: MAT 4213.
An in-depth study of the calculus of functions of several real variables; differentiation, Jacobians, non-linear transformations, and 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 3213.
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
(3-0) 3 hours credit. Prerequisites: Permission in writing (form available) of 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 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 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.

## MINOR IN STATISTICS

All students pursuing the minor in Statistics must complete 22 semester hours:
A. 19 hours of required courses:

MAT 1214 Calculus I
MAT 1223 Calculus II

| MAT | 2213 | Calculus III |
| :--- | :--- | :--- |
| MAT | 2233 | Linear Algebra |
| STA | 3513 | Probability and Statistics |
|  |  | or |
|  | STA | 3533 Probability and Random Processes |
| STA | 3523 | Statistical Methods |

B. 3 hours of approved upper-division statistics electives.

To declare a minor in Statistics, to obtain advice, or to seek approval of substitutions for course requirements, students should consult the Undergraduate Advisor of Record in the Division of Mathematics, Computer Science, and Statistics.

## COURSE DESCRIPTIONS STATISTICS <br> (STA)

## 1053 Basic Statistics

(3-0) 3 hours credit. Prerequisite: MAT 1013, 1033, or MAT 1063.
Descriptive statistics; histograms; measures of location and dispersion; elementary probability theory; random variables; binomial and normal distributions; interval estimation and hypothesis testing; simple linear distributions; 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 1013 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, 1063, or 1073.
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.

3013 Multivariate Analysis for the Life and Social Sciences (3-0) 3 hours credit. Prerequisite: STA 1993 or 3523.
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 3513.
Simple random sampling, stratified random sampling, ratio and regression estimates, systematic sampling, cluster sampling, unequal probability sampling, two-stage and multistage sampling, and non-sampling errors.

3433 Applied Non-Parametric Statistics
(3-0) 3 hours credit. Prerequisite: STA 1993 or 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, probability functions, density functions, random variables, functions of random variables and their sampling distributions, and important discrete and continuous random variables.

3523 Statistical Methods
(3-0) 3 hours credit. Prerequisite: STA 3513 or 3533.
Estimation and testing hypotheses, chi-square tests, linear regression, analysis of variance, and other topics which may include nonparametric methods, quality control, and reliability.

3533 Probability and Random Processes
(3-0) 3 hours credit. Prerequisites: EE 3423 and 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. Prerequisites: STA 1993 or 3523.
Methods especially useful for problems arising in the life sciences: analysis of count data, contingency tables, and Probit and Logit analysis.

## 4613 Operations Research I

(3-0) 3 hours credit. Prerequisite: MAT 2233.
Introduction to analytical methods and models of operations research, with emphasis on optimization. Linear integer and non-linear programming, network analysis including PERT and CPM, and introduction to dynamic programming.

4623 Operations Research II
(3-0) 3 hours credit. Prerequisite: STA 3513 or an equivalent.
Introduction to probabilistic analysis and models in operations research. Decision analysis, Markov chains, and queuing models.

## 4643 Introduction to Stochastic Processes

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

## 4723 Design and Analysis of Experiments

(3-0) 3 hours credit. Prerequisite: STA 1993 or 3523.
General concepts in the design and analysis of experiments. Emphasis will be placed on both the experiment design 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 3513.
Statistics and simple probability are introduced in terms of problems which arise in manufacturing and their application to control of manufacturing processes. Includes acceptance sampling in terms of standard sampling plans: MIL-STD 105, MIL-STD 414, Dodge-Romig plans, continuous plans, etc.

4903 Survival Analysis
(3-0) 3 hours credit. Prerequisite: STA 3523 or an equivalent.
Measures of survival, hazard function, means residual life function, common failure distributions and a procedure for selecting an appropriate model, reliability of complex series and parallel systems, and the probabilistic approach to biomedical applications.

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 courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

## COLLEGE OF SOCIAL \& BEHAVIORAL SCIENCES



# COLLEGE OF SOCIAL AND BEHAVIORAL SCIENCES 

## 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, and Philosophy), 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 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 Studies, Anthropology, History, Psychology, and Women and Gender Studies.

## INTERNSHIP 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 is normally done by Division faculty members. The various degree plans within the Behavioral and Cultural Sciences 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 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.

## DIVISIONAL HONORS

The Division of Behavioral and Cultural Sciences designates certain of its outstanding students as Honors students and provides the opportunity for advanced study under close faculty supervision.

Selection of students for admission to the Division Honors Program 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 grade-point average of 3.0 overall 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 admitted to the Honors program are expected to enroll in the appropriate Honors Thesis course during the final two semesters in residence. 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 an interdisciplinary program which examines society and culture in the United States. This approach provides a broad view of the nation's life by examining not only politics and economics but also customs, art, literature, and thought and by using materials and methodologies from several disciplines. The major in this field allows students a latitude of study to develop, in close consultation with the American Studies advisor, a course of study adapted to their own interests and postgraduate needs; it is especially appropriate for students choosing careers in law, urban studies, the military, public relations, historic conservation, museum and archival management, and community organizations.

The minimum number of semester hours required for this degree, including the Core Curriculum requirements, is 120 . Thirty-nine of the total semester hours required for the degree must be at the upper-division level.

All candidates for the degree must complete:
A. 36 semester hours in courses approved by the American Studies advisor, 21 of which must be at the upper-division level:

1. 21 semester 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 hours, selected from:

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 hours of AMS 4823: Topics in American Culture
2. 15 semester hours of support work from at least two disciplines. This work must constitute a unified area of interest and be approved by the American Studies advisor. Three semester hours of AMS 4933: Internship in American Studies may be taken in partial fulfillment of this requirement.

Areas of interest may include: Mexican-American Studies, Women and Gender Studies, the American Legal System, Problems in Modern American Society, Race and Ethnicity in America, American Arts, and Urban Studies. Other areas of interest may be chosen with the consent of the American Studies advisor.
B. 30 semester hours of electives.

## MINOR IN AMERICAN STUDIES

All students pursuing a minor in American Studies must complete 18 semester hours:
A. 12 semester 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 hours, to be 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, to obtain advice, or to seek approval of substitutions for course requirements, students should consult the Undergraduate Advisor of Record in the Division of Behavioral and Cultural Sciences.

## COURSE DESCRIPTIONS <br> AMERICAN STUDIES <br> (AMS)

## 2013 Basic Issues in American Culture (3-0) 3 hours credit. <br> Introduces the student to contemporary culture in the United States, using the interdisciplinary American studies approach and the disciplinary approaches of history, literature, anthropology, sociology, and philosophy. Examines the concept of an "American Character," the development of materialism, the "Culture of Consumption," and the popular culture of entertainment.

3013 Early American Culture
(3-0) 3 hours credit.
Examines the major influences which shaped American culture in the pre-industrial era. Topics may include the impact of colonialism, the Enlightenment, the frontier, and other factors upon the development of a distinctive society.

## 3023 Modern American Culture

(3-0) 3 hours credit.
Examines major trends in American culture during and after the industrial revolution, with special attention to the consequences of urbanization, industrialization, and secularization upon American society.

3033 Topics in Regional American Cultures
(3-0) 3 hours credit.
A study of the culture(s) of a distinct region or regions within the United States. Emphasis will be given to 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.

3043 Topics in Ethnic American Cultures
(3-0) 3 hours credit.
A study of the cultural expressions of a particular racial or ethnic group or groups in the United States. Topics may include Native American, Black, Hispanic, Jewish, or other cultural groups. May be repeated for credit when topics vary.

3053 Topics in Women and American Culture
(3-0) 3 hours credit.
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.

4823 Topics in American Culture (3-0) 3 hours credit.
An in-depth study of a selected topic, such as American reform movements and political change, 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.

## 4913 Independent Study

(3-0) 3 hours credit. Prerequisites: Permission in writing (form available) of 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 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 credit hours may be earned through Internship in American Studies. Must be taken on a credit/nocredit basis. Only 3 hours can be applied to the major in American Studies.

## BACHELOR OF ARTS DEGREE IN ANTHROPOLOGY

The minimum number of semester hours required for this degree, including the Core Curriculum requirements, is 120 . Thirty-nine of the total semester hours required for the degree must be at the upper-division level.

All candidates for the degree must complete:
A. 30 semester hours in the major, 18 of which must be at the upper-division level:

1. 12 semester hours of required courses:

ANT 2033 Introduction to Physical Anthropology
ANT 2043 Introduction to Archaeology
ANT 2053 Introduction to Cultural Anthropology
ANT 2063 Introduction to Anthropological Linguistics
2. 9 upper-division semester hours, to be chosen in consultation with the student's advisor:

3 semester hours in archaeology.
3 semester hours in cultural anthropology.
3 semester hours in physical anthropology.
3. 9 additional upper-division semester 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 hours of courses in the social sciences outside the major, to be chosen with the consent of the advisor.
C. 9 upper-division semester hours of work from another discipline which 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 advisor after completion of 12 semester 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 of Record.
D. 21 semester hours of electives.

## MINOR IN ANTHROPOLOGY

All students pursuing a minor in Anthropology must complete 18 semester hours:
A. 9 semester hours of required courses:

ANT 2033 Introduction to Physical Anthropology
ANT 2043 Introduction to Archaeology
ANT 2053 Introduction to Cultural Anthropology
B. 9 additional upper-division semester hours:

3 semester hours in archaeology.
3 semester hours in cultural anthropology.
3 semester hours in physical anthropology.
To declare a minor in Anthropology, to obtain advice, to obtain lists of relevant courses, or to seek approval of substitutions for course requirements, students should consult the Undergraduate Advisor of Record in the Division of Behavioral and Cultural Sciences.

## COURSE DESCRIPTIONS <br> ANTHROPOLOGY (ANT)

## 1013 Human Adaptation

(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 Introduction to Anthropological Linguistics

(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.)

## 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 florescence of Native American societies of the Great Plains following the introduction of the horse. Attention is given also 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 socio-cultural 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 bi-ethnic 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.

## 3253 The Archaeology of South America

(3-0) 3 hours credit. Prerequisite: ANT 1013 or 2043 recommended. The origins and development of the native cultures of South America, and their relationships to the cultural areas of Central America and the Caribbean. Emphasis on the variety of cultural forms and cultural evolution. The roles of demography, subsistence systems, militarism, religion, and other factors in the rise of South American cultures may be discussed.

3263 Archaeology of North America
(3-0) 3 hours credit. Prerequisite: ANT 1013 or 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, Zapotec, et al.

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.

## 3313 Indians of the Woodlands

(3-0) 3 hours credit. Prerequisite: ANT 1013, 2023, or 2053 recommended.
A survey of the cultures of the Native American peoples in eastern North America. Traditional cultures and changes due to European contact are examined using ethnographic, archaeological, and ethnohistorical data.

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 Traditional Mesoamerican Cultures

(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.

3373 Artifacts, Crafts, and Artists of Native North America (3-0) 3 hours credit. Prerequisite: ANT 1013 or 2053 recommended. A survey of the techniques employed by Native North Americans for the production of aesthetic objects and the embellishment of utilitarian items. The course focuses on the explosion of creative activity which resulted from European contact and the eventual recognition of artists in more recent times.

## 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.

Anthropology of Music
(3-0) 3 hours credit. Prerequisite: ANT 1013 or 2053 recommended. A cross-cultural survey of musical traditions to determine universals and particulars of meaning, form, learning, composition, performance, and function. The role of the musician in literate and non-literate societies is considered.

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 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 or 2053.
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.

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.

3623 Primate Behavior
(3-2) 3 hours credit. Prerequisite: ANT 1013 or 2033 recommended. Analysis of learning, development, and social and abnormal behavior among the various primate species. Observational projects at the San Antonio Zoo are part of this course.

3643 Archaeometry
(3-0) 3 hours credit. Prerequisite: ANT 1013 or 2043 recommended. Application of the physical and chemical sciences to archaeological problems; examination of selected topics: trade, technology, dating, settlement patterns, and seasonality of occupations.

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.

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.

## 4253 Cultural Dynamics

(3-0) 3 hours credit. Prerequisite: ANT 1013 or 2053 recommended.
An examination of anthropological thought on the causes, nature, and consequences of cultural change and continuity. Case studies are used to illustrate both long-term civilization processes in cultural transformation and shorter-range innovation and change.

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 three hours of credit with consent of instructor.

4913 Independent Study
3 hours credit. Prerequisite: Permission in writing (form available) of 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 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 credit hours may be earned through Internship in Anthropology.

## 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 courses may be repeated for credit when the topics vary, but not more than 6 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 hours required for this degree, including the Core Curriculum requirements, is 120 . Thirty-nine of the total semester hours required for the degree must be at the upper-division level. Courses taken to satisfy Core Curriculum requirements in U.S. History/Diversity may not be used to satisfy history major or support work requirements.

All candidates for the degree must complete:
A. 30 semester hours in the major, 18 of which must be at the upper-division level:

1. HIS 2003 Historical Methods
2. 9 semester hours, selected from the world civilization sequence (IDS 2203 and IDS 2213) or from courses numbered HIS 2103-2693.
3. 15 upper-division semester hours of history courses. These hours must include at least one U.S., one European, and one "other" area. Up to 6 semester 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 Development of Economic Thought
ECO 3183 Economic Development of the United States
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 hours from HIS 4973: Seminar in History or HIS 4303: Quantitative Methods in History.
B. 6 semester 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/her advisor in order to define a cohesive support area. The advisor's approval is required.
C. 30 semester hours of electives.

## MINOR IN HISTORY

All students pursuing a minor in History must complete 18 semester hours:
A. 9 semester hours of required courses:

| HIS | 2003 | Historical Methods |
| :--- | :--- | :--- |
| IDS | 2203 | World Civilization to the Fifteenth Century |
| IDS | 2213 | World Civilization Since the Fifteenth Century |

B. 9 additional semester hours of upper-division history electives.

To declare a minor in History, to obtain advice, or to seek approval of substitutions for course requirements, students should consult the Undergraduate Advisor of Record in the Division of Behavioral and Cultural Sciences.

## COURSE DESCRIPTIONS HISTORY (HIS)

## 1043 United States History: Pre-Columbus to Civil War Era

 (3-0) 3 hours credit.From a variety of perspectives, this course will analyze topics covering the geography of North America; pre-Columbian societies; European colonial societies and their transition into the national period; the development of modern economic structures and political traditions; westward expansion; class, race, ethnicity, and gender; cultural diversity and national unity; the relations of the United States to other nations and cultures; and the impact of these trends and issues on the development of the nation. [TCCN: HIST 1301.]

## 1053 United States History: Civil War Era to Present

 (3-0) 3 hours credit.From a variety of perspectives, this course will analyze topics covering the development of the United States as an urban industrial nation; the rising importance of the business cycle, corporations, and immigration; political traditions; class, race, ethnicity, and gender; cultural diversity and national unity; the relationship between the United States and other
nations and cultures; and the impact of these trends on the development of the nation. [TCCN: HIST 1302.]

## 2003 Historical Methods

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

## 2053 Texas History

(3-0) 3 hours credit.
From a variety of perspectives, this course will analyze topics covering the geography of North America; pre-Columbian societies; Spanish and American colonial societies and their transition into the Mexican, Texan, and American national periods; conflict and consensus among native, Spanish/Mexican, Anglo-American and other immigrant groups and cultures; gender; rural, urban, and industrial modernization and resulting class differences and interdependence; political developments and traditions; and the impact of these trends on the development of the state within the context of the American experience. [TCCN: HIST 2303.]

## 2103 Introduction to World Civilization I

(3-0) 3 hours credit. Prerequisite: Enrollment limited to candidates in the University Honors Program.
An interdisciplinary examination of the origins, growth, and development of representative major world cultures and civilizations, with emphasis on the political, social, economic, intellectual, and artistic legacies of each. (May be substituted for IDS 2203 by history or IDS majors with advisor approval; credit may not be earned for both HIS 2103 and IDS 2203.)

## 2113 Introduction to World Civilization II

(3-0) 3 hours credit. Prerequisite: Enrollment limited to candidates in the University Honors Program.
Further interdisciplinary analysis of the origins, growth, and development of representative major world cultures and civilizations, with emphasis on the political, social, economic, intellectual, and artistic legacies of each. (May be substituted for IDS 2213 by history or IDS majors with advisor approval; credit may not be earned for both HIS 2113 and IDS 2213.)

## 2533 Introduction to Latin-American Civilization

(3-0) 3 hours credit.
An introduction to Latin America which will examine 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 nationbuilding, 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.

## 2553 Introduction to Asian Civilization

(3-0) 3 hours credit.
An introduction to the major historical and historiographical problems in the experience of Asia, with a focus on China, from the earliest times to the present. The course will expose students to a variety of intellectual approaches and to the diversity of Asia and its historiography. [TCCN: HIST 2323.]

## 2563 Introduction to European Civilization

(3-0) 3 hours credit.
An introduction to the major historical and historiographical problems in the experience of Europe, from the earliest times to the present. The course will expose students to a variety of intellectual approaches and to the diversity of European history.

## 2573 Introduction to African Civilization

(3-0) 3 hours credit.
An introduction to the major historical and historiographical problems in the experience of Africa, from the earliest times to the present. The course will expose students to a variety of intellectual approaches and to the diversity of African history.

3003 Colonial America and the Formation of American Society (3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
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. Prerequisite: HIS 1043, an equivalent, or consent of instructor; HIS 2003 recommended.
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. Prerequisite: HIS 2003 recommended.
An analysis and comparison of the origins and development of American reform from 1730 to the New Deal. Topics may include the Great Awakening, anti-slavery, temperance, abolitionism, Populism, Progressivism, and the New Deal.

3063 The Spanish Borderlands, 1521-1821
(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
An overview and analysis of Spanish exploration and colonization in the northern frontier of Colonial Mexico, including an 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. Prerequisite: HIS 2003 recommended. 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. Prerequisite: HIS 2003 recommended.
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. Prerequisite: HIS 2003 recommended.
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. Applies to the legislative requirement for United States history.

3113 The American Indian
(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
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. Prerequisite: HIS 2003 recommended.An overview of Texas history, beginning with sixteenth- and seven-teenth-century Spanish exploration, with emphasis on eighteenth-century colonization, and culminating in nineteenth-century Anglo-American immigration and the social-political changes that resulted in Texas independence.

## 3153 American Urban History

(3-0) 3 hours credit.
A study of urban growth since 1625 . The course examines the social, economic, and political life of three phases in United States urbanization: the colonial city, the industrial city, and the modern metropolis. The effects of urban changes on the lives of city dwellers and on the ways in which cities have influenced national development are considered.

## 3163 The Stranger in America

 (3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.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. Prerequisite: HIS 2003 recommended.
Modern America since the onset of the Great Depression is examined in relation to the socio-economic forces and the political trends of the twentieth century. Topics include social change, popular culture, evolving political functions and structures, and the new American role in world order.

3183 Law and American Development
(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
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. Prerequisite: HIS 2003 recommended. Development of Southern identity, slavery, Civil War and Reconstruction, Jin Crowism, the Black experience, and the Civil Rights Movement, with emphasis on the period since 1815 .

3203 Britain Since 1760
(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
A survey of modern British history, emphasizing political, social, and intellectual factors in Britain's past.

3213 France Since 1750
(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
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. Prerequisite: HIS 2003 recommended.
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

3263 Seventeenth- and Eighteenth-Century Europe (3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
A survey of European history under the Ancien 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. Prerequisite: HIS 2003 recommended.
A study of European society from the fall of the Roman empire to the eve of the Renaissance. Attention to the growth of Christianity in Europe, changing forms of political, economic, and social organization, and intellectual and cultural developments.

## 3283 Twentieth-Century Europe

(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
Economic, social, political, and cultural change in Europe since the First World War. Topics will include the formation of new political movements (such as social democracy, communism, fascism) between the wars, World War II and its effects, the post-war transformation of Europe, and the Cold War in Europe.

3293 Imperial Spain
(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
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. (Formerly HIS 3243. Credit cannot be earned for both HIS 3293 and 3243.)

3303 History of Mexico
(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
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. Prerequisite: HIS 2003 recommended.
A survey of United States relations with Latin America, from the Monroe Doctrine to the present. General themes include the Monroe Doctrine, Manifest Destiny, gun-boat 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. Prerequisite: HIS 2003 recommended.
The course will emphasize the nineteenth and twentieth centuries and may include the following topics: 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. Prerequisite: HIS 2003 recommended.
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. Prerequisite: HIS 2003 recommended.
An analysis of the role which colonial legacies played in nineteenth- and twentieth-century social and political violence. Case studies may include Mexico, Bolivia, Cuba, Chile, and Nicaragua.

3383 History of Andean Nations
(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
Case studies from Colombia, Peru, Ecuador, and Chile will be used to explore the legacies of conquest, colonialism, and nationalism. Relationships between these nations and the United States will be examined.

3393 Women in Latin America
(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
Examines the history of women in Latin America, from pre-Columbian times to the present. Considers the institutions, events, and social, economic, and political concepts that have shaped the history of women.

3403 Pre-Hispanic and Colonial Latin America
(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
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. Prerequisite: HIS 2003 recommended.
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. Prerequisite: HIS 2003 recommended.
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. Prerequisite: HIS 2003 recommended.
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. Prerequisite: HIS 2003 recommended.
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. (Formerly HIS 4133. Credit cannot be earned for both HIS 3463 and 4133.)

## 3473 History of Women in the United States

(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
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. (Credit cannot be earned for both HIS 3473 and SSC 3143.)

3493 History of San Antonio
(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
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. Prerequisite: HIS 2003 recommended.
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. Prerequisite: HIS 2003 recommended.
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. Prerequisite: HIS 2003 recommended.
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. Prerequisite: HIS 2003 recommended.
This course examines the role of cities in the development of Western civilization, focusing on the ways that 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. Prerequisite: HIS 2003 recommended.
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. Emergence of new forms of weaponry, strategy, logistics, and tactics.

## 3633 Early Modern England, 1485-1760

(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
English history in the Tudor, Stuart, and early Hanoverian eras, emphasizing the growth of the national state, the overseas expansion of England, and pre-industrial social and economic change.

3643 Modern Spain
(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
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. Prerequisite: HIS 2003 recommended.
The cultural achievements of Italy and northern Europe, from the fourteenth to the sixteenth centuries, in their economic, social, and political contexts. (Formerly HIS 3513. Credit cannot be earned for both HIS 3723 and HIS 3513.)

3733 Europe in the Age of the Reformation
(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
Culture, religion, and society in Europe in the sixteenth century. (Formerly HIS 3513. Credit cannot be earned for both HIS 3733 and HIS 3513.)

3743 Russia, 1682-1917
(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
The development of Russia from the accession of Peter the Great to the outbreak of the Russian Revolution. (Formerly HIS 3223. Credit cannot be earned for both HIS 3743 and HIS 3223.)

3753 Soviet Russia Since 1917
(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
The evolution of Soviet Russia from the revolution of 1917. A critical analysis of the building of a socialist society in the Soviet Union and the relationship of Soviet Russia to the outside world. (Formerly HIS 3223. Credit cannot be earned for both HIS 3753 and HIS 3223.)

## 3763 Russia Before Peter the Great

(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
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. Prerequisite: HIS 2003 recommended.
A study of American political history from the eighteenth century to the present. Deals with presidents and major national developments, but also considers such topics as federalism, state politics, voting behavior, party systems, and political realignment.

## 3823 History of American Foreign Policy

(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
An examination of the emergence of America as a world power and its subsequent activities in the affairs of nations. Particular emphasis is placed on the domestic roots of American diplomacy. (Credit cannot be earned for both HIS 2063 and HIS 3823.)

## 4003 History of Organized Crime

(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
A study of the emergence and development of various types of syndicated crime and their impact on American society since the nineteenth century.

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.

## 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 2083.
An introduction to the use of statistics and computers in historical research. Topics will include social science methodology, statistics, and the use of data base and statistical software. Students will prepare and analyze a statistical data base 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.

## 4413 Modern Brazil

(3-0) 3 hours credit. Prerequisite: HIS 2003 recommended.
An examination of the recent history of Brazil, focusing on topics such as the Brazilian military, the Amazonian frontier, the decline of indigenous societies, and race relations. Special attention will be given to Brazilian culture, literature, and music.

4503 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 non; marriage and the family; the condition of women; attitudes towards children; deviants and outgroups.

## 4913 Independent Study

3 hours credit. Prerequisites: Permission in writing (form available) of 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 hours of independent study, regardless of discipline, will apply to a bachelor's degree.

4923 Topics 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 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 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 courses may be repeated for credit when topics vary, but not more than 6 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 hours required for this degree, including the Core Curriculum requirements, is 120 . Thirty-nine of the total semester hours required for the degree must be at the upper-division level.

All candidates for the degree must complete:
A. 33 semester hours in the major, 18 of which must be at the upper-division level:

1. $\mathbf{1 5}$ semester hours of lower-division courses:
a. PSY 2013 Fundamentals of Psychology
b. 6 semester hours, to be selected from:

PSY 2503 Developmental Psychology
PSY 2513 Abnormal Psychology
PSY 2523 Personality
PSY 2533 Social Psychology
c. 6 semester hours, to be selected from:

PSY 2543 Theories of Learning
PSY 2553 Perception
PSY 2573 Psychology of Thought
PSY 2583 Psychology of Language
2. 18 semester hours of upper-division courses:
$\begin{array}{llll}\text { a. } & \text { PSY } & 3403 & \text { Experimental Psychology } \\ & \text { PSY } & 3413 & \text { Experimental Psychology Laboratory }\end{array}$
b. 3 semester hours, to be selected from:

PSY 3103 Cognition
PSY 4113 Cognitive Development
PSY 4143 Memory
PSY 4163 Sensory Processes
PSY 4213 Social Cognition
PSY 4273 Styles of Thought
c. 9 semester 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 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 advisor. A listing of the sets of courses which meet this requirement is available from the student's advisor.
C. One of the following (one or more prerequisites must be satisfied to enroll in these courses):

STA 1053 Basic Statistics
STA 1063 Basic Statistics for Business and Economics
STA 1073 Statistics for Psychology or approved substitute

NOTE: Requirement C. must be satisfied before enrolling in PSY 3403 and PSY 3413, and should be completed during the freshman or sophomore year.
D. 18 semester hours of electives.

## MINOR IN PSYCHOLOGY

All students pursing a minor in Psychology must complete 18 semester hours:
A. 6 semester hours of required courses:

PSY 2013 Fundamentals of Psychology
PSY 3403 Experimental Psychology (concurrent enrollment in PSY 3413 waived; prerequisite of STA 1073 or equivalent required)
B. 3 additional semester hours, to be selected from:

| PSY | 2503 | Developmental Psychology |
| :--- | :--- | :--- |
| PSY | 2513 | Abnormal Psychology |
| PSY | 2523 | Personality |
| PSY | 2533 | Social Psychology |

C. 3 additional semester hours, to be selected from:

| PSY | 2543 | Theories of Learning |
| :--- | :--- | :--- |
| PSY | 2553 | Perception |
| PSY | 2573 | Psychology of Thought |
| PSY | 2583 | Psychology of Language |

D. 6 additional upper-division hours of psychology courses.

To declare a minor in Psychology, to obtain advice, or to seek approval of substitutions for course requirements, students should consult the Undergraduate Advisor of Record in the Division of Behavioral and Cultural Sciences.

## COURSE DESCRIPTIONS PSYCHOLOGY (PSY)

## 2013 Fundamentals of 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. Scientific and non-scientific approaches to the explanation of psychological phenomena are examined critically. Participation in illustrative research required. [TCCN: PSYC 2301.]

2503 Developmental Psychology
(3-0) 3 hours credit. Prerequisite: PSY 2013.
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 2013.
Dynamics of abnormal behavior, with attention to description, causes, and treatment of major psychological disorders including neuroses, psychoses, personality disorders, and psychosomatic disorders.

## Personality

(3-0) 3 hours credit. Prerequisite: PSY 2013.
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: SOC 1013 or PSY 2013.
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 2013, and MAT 1013 or an equivalent.
An examination of major theories about the nature of the leaming 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 2013, and MAT 1013 or an equivalent.
Survey of the processes by which the information available in light and sound 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, memory structures, and an introduction to information processing.

## 2573 Psychology of Thought

(3-0) 3 hours credit. Prerequisites: PSY 2013, and MAT 1013 or an 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 2013, and MAT 1013 or an 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 2013, 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. Prerequisite: PSY 2533 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 2013 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 an 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 2013 and upper-class standing. Examination of cognitive, purposive, and biological factors in motivational explanations of human behavior. The nature of emotion and the role 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 selfknowledge 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 vs. 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: PSY 2013; one course from PSY 2503, 2513, 2523, 2533; one course from PSY 2543, 2553, 2573, 2583; STA 1073 or an equivalent; 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. (Formerly PSY 3003. Credit may not be earned for both PSY 3403 and PSY 3003.)

## 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. (Credit may not be earned for both PSY 3001 and PSY 3413.)

## 3513 Psychopathology and Childhood

(3-0) 3 hours credit. Prerequisite: PSY 2513.
Clinical findings and experimental research regarding childhood behavior problems, including hyperkinesis, infantile autism, childhood schizophrenia, and childhood neuroses. Additional topics include family influences on development of abnormal behavior and various psycho-therapeutic techniques.

3523 Psychology of Aging
(3-0) 3 hours credit. Prerequisite: PSY 2503 or consent of instructor. Descriptive and theoretical accounts of psychological aspects of aging.

## 3543 Introduction to Clinical Psychology

(3-0) 3 hours credit. Prerequisites: PSY 2513 and 3403.
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. (Formerly PSY 3533. Credit may not be earned for both PSY 3533 and PSY 3543.)

3633 Aggression
(3-0) 3 hours credit. Prerequisite: ANT 1013, PSY 2013, or consent of instructor.
Survey of social and psychological data, and findings and theory of aggression for both human and non-human subjects.

## 3903 Advanced Psychological Research

(2-2) 3 hours credit. Prerequisite: PSY 3403 or an equivalent.
Provides the opportunity for the student to conduct current research in a sub-area of psychology under the instructor's supervision. Lectures will include a review of previous research in the sub-area 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 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 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, 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 to 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. (Credit cannot be earned for both PSY 4133 and either PSY 3283 or PSY 4123.)

## 4143 Memory

(3-0) 3 hours credit. Prerequisites: PSY 3403 or an equivalent; one of the following: PSY 2543, 2553, 2573, 2583, or consent of instructor.
Models for the coding, storage, and retrieval of information in memory. Organization and structure of short-term memory, long-term memory, semantic memory, and the role of verbalization and images in memory.

## 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 2013 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. (Formerly PSY 2563. Credit cannot be earned for both PSY 4183 and 2563.)

## 4193 Relationships

(3-0) 3 hours credit. Prerequisites: PSY 2533 and 3403.
A consideration of the psychological processes which underlie the development and maintenance of social relationships. Emphasis on motivational and cognitive factors which 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; one of the following: PSY 2533, 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 in which 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.

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.

4263 Psychology and Law
(3-0) 3 hours credit.
Consideration of the role of psychology in the legal system, with emphasis on the contributions of psychology to the understanding of criminal behavior and the operation of the criminal justice system. Topics may include eyewitness testimony, police behavior, jury selection, jury decision-making, the insanity defense, plea bargaining and sentencing, punishment, and imprisonment.

## 4273 Styles of Thought

(3-0) 3 hours credit. Prerequisites: PSY 3403 or an equivalent; PSY 2573 or 3103 .
Study of how individuals vary in the way they 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 neoFreudian theorists and on psychological theory and research.

## 4911,3 Independent Study

1,3 hours credit. Prerequisite: Permission in writing (form available) of 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 hours of independent study, regardless of discipline, will apply to a bachelor's degree. No more than 3 credit hours of independent study will apply toward psychology major requirements.

## 4923 Current Topics in Psychology

(3-0) 3 hours credit. Prerequisites: PSY 2013 and upper-class standing, or consent of instructor.
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 credit hours will apply toward the major in Psychology.

## 4933,6 Internship in Psychology

3 or 6 hours credit. Prerequisite: Consent of Internship Coordinator prior to registration.
Supervised experience relevant to psychology within selected community organizations. A maximum of 6 credit hours may be earned through Internship in Psychology. No more than 3 credit hours will apply toward psychology major 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 courses may be repeated for credit when the topics vary, but not more than 6 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 credit hours can apply toward psychology major requirements.

## MINOR IN WOMEN AND GENDER STUDIES

A minor in Women and Gender Studies provides the student with the opportunity to examine the experience of women and men from an interdisciplinary perspective. Emphasis will be placed on pursuing an understanding of women and issues of gender in diverse cultures and across time.

18 semester hours are required for this minor:
A. 6 semester hours of required courses:

WGS 2013 Introduction to Women and Gender Studies
WGS 4013 Research on Contemporary Policy Issues
B. 12 additional semester hours, selected from the following in at least two disciplines other than the student's major:

AMS 3053 Topics in Women and American Culture
ANT 3103 Social Organization
ANT 3603 Sex, Gender, and Culture
BIO 2003 Human Sex and Reproduction
BLW 2003 Gender Law
ENG 3133 Women in Literature
HIS 3473 History of Women in the United States
LNG 3823 Gender Issues in Language
PSY 3303 Psychological Perspectives on Gender
PSY 4193 Relationships

SOC 2053 Marriage and the Family
SOC 3283 Poverty
SOC 3293 Sex Roles
WGS 4913 Independent Study
WGS 4933 Internship in Women and Gender Studies
To declare a minor in Women and Gender Studies, to obtain advice, to obtain lists of relevant courses, or to seek approval of substitutions for course requirements, students should consult the Undergraduate Advisor of Record 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.

## 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, then work together to formulate a policy recommendation. WGS minors are encouraged to recommend issues for examination to the WGS 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, and 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 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/gender issues may be earned within selected community organizations. A maximum of 3 hours may be applied to the minor in Women and Gender Studies.

## 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 which may be used to fulfill the Core Curriculum requirements or which may be taken as support courses for programs within The University or as electives. Courses in bicultural-bilingual studies offer the opportunity for students 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 also offer the opportunity for those who intend to teach in other areas or to enter fields that rely heavily on an understanding of language learning and bilingualism. ${ }^{1}$ In addition, the Division offers advanced courses in English for international students which are appropriate for both graduate and undergraduate students.

## BACHELOR OF ARTS DEGREE IN MEXICAN-AMERICAN STUDIES (Coordinating Board approval pending)

Mexican-American Studies is an interdisciplinary program integrating MexicanAmerican studies with a specific liberal arts discipline. Majors are required to complete 39 semester hours from a prescribed program of study, which must include 18 semester hours from one of four options: history, political science, sociology, or Spanish.

The minimum number of semester hours required for this degree, including the Core Curriculum requirements, is 120 .

All candidates for the degree must complete:
A. 21 semester hours of Mexican-American studies:

1. 18 required semester hours:

BBL 2003 Language, Culture, and Society or
BBL 3133 Communicative Competence in a Multilingual Society
BBL 2013 Social Science Paradigms in Chicano Studies
BBL 2023 Latino Cultural Expressions
BBL 3033 The Mexican American in the Southwest or
HIS 3443 Latinos in the United States
BBL 4083 Research Seminar in Mexican-American Studies
SPN 3493 Mexican-American Literature

[^16]2. 3 semester hours, to be selected from the following:

BBL 3043 Psychological Considerations in a Bicultural Environment
POL 3093 Mexican-American Politics (required for Political Science option)
SOC 3403 Mexican-American Stratification (required for Sociology option)
B. 18 semester hours of required courses, to be completed in one of the following options:

## Option in History

a. 6 required semester hours:

HIS 2003 Historical Methods
HIS 4303 Quantitative Methods in History or HIS 4973 Seminar in History
b. 6 semester hours, selected from:

HIS 3083 History of the American West
HIS 3153 American Urban History
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 hours, selected from:

HIS 3063 The Spanish Borderlands, 1521-1821
HIS 3073 Mexican Borderlands/The American Southwest
HIS 3293 Imperial Spain
HIS 3303 History of Mexico
HIS 3393 Women in Latin America

## Option in Political Science

a. 6 required semester hours:

POL 2703 Scope and Methods of Political Science
POL 3083 Ethnic Politics in the United States
b. 3 semester hours, selected from:

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 hours of upper-division political science courses, as follows:

3 semester hours of political theory.
3 semester hours of comparative politics or international relations. 3 semester hours of public administration or public law.

## Option in Sociology

a. 12 required semester 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 or
SOC 3353 Contemporary Sociological Theory
b. 6 semester hours, selected from:

SOC 3013 Social Stratification
SOC 3033 Population Dynamics
SOC 3073 Migration and Adjustment
SOC 3283 Poverty
SOC 3293 Sex Roles
SOC 4203 Applied Community Studies

## Option in Spanish

a. 18 required semester 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 3323 Hispanic Literature II: Spanish America
SPN 3623 Spanish-American Culture and Civilization or
SPN 3663 Contemporary Spanish America or
SPN 3673 Hispanic Cultural Systems
SPN 4123 The Spanish of the Mexican American
C. 27 semester hours of electives.

## MINOR IN BICULTURAL STUDIES

All students pursuing a minor in Bicultural Studies must complete 18 semester hours:
A. 6 semester hours of courses on bicultural studies, to be selected from the following:

BBL 2003 Language, Culture, and Society
BBL 2013 Social Science Paradigms in Chicano Studies
BBL 2023 Latino Cultural Expressions
B. 6 semester hours of courses on language, to be selected from the following:

BBL 3013 Language Analysis and Bilingualism
BBL 3043 Psychological Considerations in a Bicultural Environment
BBL 3133 Communicative Competence in a Multilingual Society
ESL 3043 Psycholinguistic Concepts in Second-Language Acquisition
C. 6 semester hours of courses on culture and society, to be selected from the following:

BBL 3003 Multiculturalism in the Southwest
BBL 3023 Mexican-American Biculturalism
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 Bicultural-Bilingual Studies.

To declare a minor in Bicultural Studies, to obtain advice, or to seek approval of substitutions for course requirements, students should consult the Undergraduate Advisor of Record in the Division of Bicultural-Bilingual Studies.

## COURSE DESCRIPTIONS BICULTURAL-BILINGUAL STUDIES (BBL)

## 2003 Language, Culture, and Society

(3-0) 3 hours credit.
The interdisciplinary study of language in its cultural and social contexts, with emphasis on linguistically heterogeneous communities. Topics include language and ethnicity, language and gender, language and social class, language acquisition, and oral and written language.

## 2013 Social Science Paradigms in Chicano Studies

(3-0) 3 hours credit.
An historical analysis of the social, cultural, and economic status of Chicanos and Mexicans in the Southwest. The field of Chicano studies is explored through basic social science concepts, theoretical/methodological approaches, and research findings, providing differing interpretations of the Chicano experience in the academic and ethnic communities.

## 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.

3003 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/similarities among all peoples of the region, and the role of multiculturalism in politics, education, economics, religion, and everyday life.

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 Biculturalism
(3-0) 3 hours credit.
A survey of the major cultural patterns and cultural diversity among Mexican Americans, including family and kinship, language, health, folklore, art, music, religion, sex roles, and cultural revitalization.

3033 The Mexican American in the Southwest (3-0) 3 hours credit.
Historical foundations of U.S.-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 Psychological Considerations in a Bicultural Environment (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. Offered in Spanish and English.

4073 Language Arts in a Bicultural-Bilingual Program (3-0) 3 hours credit.
A study of books and multicultural materials from diverse sources, with emphasis on their integrated use in the teaching of content and related skills in the elementary bilingual classroom. 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 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 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 courses may be repeated for credit when the topics vary, but not more than 6 hours within any one 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 hours:
A. 12 semester hours of courses in English as a second language:

ESL 3003 Applications of Linguistics
ESL 3033 Foundations of English as a Second Language
ESL 3043 Psycholinguistic Concepts in Second-Language Acquisition
ESL 3053 Literacy in a Second Language
B. 3 semester hours of courses on culture and society, to be selected from the following:

BBL 3003 Multiculturalism in the Southwest
BBL 3023 Mexican-American Biculturalism
BBL 3033 The Mexican American in the Southwest
C. 3 semester hours of courses on language minority education, to be selected from the following:

| BBL | 4023 | Foundations of Bicultural-Bilingual Studies |
| :--- | :--- | :--- |
| BBL | 4033 | Assessing Language and Learning in Bicultural-Bilingual |
| Contexts |  |  |

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 Bicultural-Bilingual Studies.

To declare a minor in English as a Second Language, to obtain advice, or to seek approval of substitutions for course requirements, student should consult the Undergraduate Advisor of Record 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.

3043 Psycholinguistic Concepts in Second-Language Acquisition (3-0) 3 hours credit.
A study of second-language acquisition theory with emphasis on class-room-centered implications.

3053 Literacy in a Second Language
(3-0) 3 hours credit.
A course on the relationship of reading and writing acquisition to secondlanguage 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.)

## DIVISION OF EDUCATION

The Division of Education offers three degree programs: The Bachelor of Arts degree in Interdisciplinary Studies, the Bachelor of Science degree in Health, and the Bachelor of Science degree 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. (Note: all-level certification is for Kinesiology and Music only.)

## DIVISIONAL HONORS

The Division of Education designates certain of its outstanding students as Honors students and provides the opportunity for advanced study under close faculty supervision.

Selection of students for admission to the Division Honors Program 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 grade-point average of 3.0 overall 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 admitted to the Honors program are expected to enroll in the appropriate Honors Thesis course during the final two semesters in residence. 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.

## CERTIFICATE PROGRAMS

The University of Texas at San Antonio is approved by the Texas Education Agency to recommend students for teaching certificates in various baccalaureate degree areas. Information regarding requirements for all certificate programs offered through UTSA is available in the Office of Teacher Advising, Certification, and Placement in the Division of Education. Students seeking provisional teacher certification, or who desire to add teaching fields or endorsements to their current teacher certification, should contact the Office of Teacher Advising, Certification, and Placement for advisement and certification admission procedures at their earliest opportunity. There are some academic requirements for a teaching certificate in addition to those outlined for baccalaureate degrees.

## Admission to Teacher Certificate Programs

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

1. completing an application and obtaining recommendations;
2. completing at least 3 courses at UTSA and attaining junior standing ( 60 semester hours of work completed);
3. having a cumulative GPA of 2.5 or better on a 4.0 scale on all work completed;
4. having passing scores on all three sections of the Texas Academic Skills Program (TASP); and
5. being in good standing with The University of Texas at San Antonio.

For more information on the Texas Academic Skills Program (TASP) test, contact the Testing Center.

## Secondary Certification

Students seeking certification to teach at the secondary level should consult with their degree advisors within their academic specialization and with the Office of Teacher Advising, Certification, and Placement for information regarding the completion of secondary certification requirements at the earliest possible date. Secondary students will complete The University degree requirements in their major or academic specialization and additional coursework as set forth by the State of Texas.

## The Student Teaching Semester

Admission to the student teaching semester must be obtained from the Office of Teacher Advising, Certification, and Placement during the semester prior to enrollment. Admission is contingent upon completion of the following requirements:

1. Admission to the UTSA Teacher Certification program, including submission of passing scores on all sections of the Texas Academic Skills Program (TASP) test;
2. A 2.5 cumulative GPA 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. For Interdisciplinary Studies majors: completion of EDP 3103, EDU 3103, ECE 4303, and ECE 4403; For secondary majors seeking teacher certification: EDP 3203, EDU 3103, and C\&I 4103;
5. For students seeking an endorsement in Early Childhood, Bilingual Education, or English as a Second Language: completion of at least 6 hours in the endorsement area;
6. The recommendations of three UTSA professors, at least two of whom must be from the Division of Education (the other may be from faculty from the student's specialization);
7. 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; and
8. Approval of the Director of Student Teaching.

## ExCET Testing

Effective May 1, 1986, all individuals seeking a teaching certificate, an additional teaching field, or an endorsement to an existing certificate must achieve a satisfactory score on one or more portions of the ExCET test prescribed by the State Board of Education. Content to be tested and the criteria for mastery have been prescribed for each area by the State Board of Education. The ExCET test is taken during the individual's last semester of coursework; passing scores on the appropriate tests must be submitted before the individual can be recommended for or
receive a Texas Teacher's Certificate. Registration booklets, reading lists, and study guide materials for each ExCET test are on file in the Office of Teacher Advising, Certification, and Placement within the Division of Education. These materials are free to students.

## BACHELOR OF ARTS DEGREE IN INTERDISCIPLINARY STUDIES

The Interdisciplinary Studies degree is designed for prospective early childhood, elementary, and middle school teachers and for others wishing to prepare themselves for interdisciplinary professions. The program is designed to give successful students the opportunity to prepare for teaching careers and to become teachers who understand their own thinking and learning processes and can successfully foster a child's conceptual, intellectual, and affective growth. For those not wishing to pursue a teaching career, the program offers students the opportunity to prepare for careers in social work, counseling, or government service, or an opportunity to prepare for graduate or professional study in business, law, or medicine. The degree program has certificate and non-certificate tracks and is organized into University Core requirements, interdisciplinary studies requirements, and electives which include the professional sequence for those seeking teacher certification.

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

Core Curriculum requirements: Students seeking the Interdisciplinary Studies degree must fulfill University Core Curriculum requirements by taking the following courses or their equivalents ( 58 semester hours required of students seeking teacher certification; 55 semester hours required of other IDS majors):

Rhetoric ( 6 semester hours):
ENG 1013 Freshman Composition
ENG 1023 Informative and Persuasive Writing

## Domain I: Science, Technology, and Logic

Science ( 7 semester hours minimum):
BIO 1203, 1212 Biology I and Laboratory (must be taken by students seeking an area of specialization in Biology)
or
GEO 1103, 1111 Introduction to Earth Systems, Lab
Additional course in a science discipline.
Mathematics/Statistics ( 6 semester hours):
MAT I063 College Algebra
(or any MAT course higher than 1063)
MAT 1143 Essential Elements in Mathematics

Students specializing in mathematics or physical science must substitute:
MAT 1093 Precalculus and
MAT 1214 Calculus I or
MAT 1223 Calculus II for MAT 1063 and MAT 1143

Computer Science/Logic ( 3 semester hours):
CS 2083 Computer Applications and Technology (must be taken by students seeking teacher certification)
Those not seeking teacher certification meet this section of the Core Curriculum in the same way as other UTSA students.*

## Domain II: Society and Culture

Political Studies ( 6 semester hours)*
U.S. History/Diversity (6 semester hours)*

Cultural and Social Science ( 6 semester hours):
IDS 2103 The Individual, Family, and Community
IDS 2113 Society and Social Issues
(may be applied toward IDS major requirement; see section A.1.)
Economics ( 3 semester hours):
One of the following:
ECO 2003 Introduction to Political Economy
ECO 2013 Introductory Macroeconomics
ECO 2023 Introductory Microeconomics

## Domain III: Literature, Language, and the Arts

Foreign Language ( 6 semester hours):
Six semester hours in the same language are required. This requirement must be met by completing a UTSA language course at the third-semester college level or by achieving an equivalent score on an approved proficiency examination. Nine semester hours in Spanish at the 2000 level or above are required for students specializing in Bicultural-Bilingual studies. Because of the high and growing percentage of Spanish-speaking students in the public schools of the Southwest, students seeking teacher certification will be advised to fulfill their language requirements in Spanish.

The Arts ( 3 semester hours)*
Literature ( 6 semester hours):
IDS 2303 World Literature I, The Narrative Mode or
IDS 2313 World Literature II, Dramatic and Lyric Modes
One of the following:
IDS 2303 World Literature I, The Narrative Mode
IDS 2313 World Literature II, Dramatic and Lyric Modes
ENG 2013 Introduction to Literature
ENG 2273 Topics in Popular Literature
ENG 2373 Literature for Children and Adolescents

ENG 2383 Minority Voices in American Literature
ENG 2423 Literature of Texas and the Southwest

## Domain IV: Interdisciplinary Studies

Diversity of Thought ( 3 semester hours):
IDS 2003 Modes of Inquiry Across the Fields of Study (may be applied toward IDS major requirement; see section A.1.)

Diversity of Culture ( 3 semester hours):
IDS 3103 Language and Culture in a Pluralistic Society (required of students seeking teacher certification; not required of students specializing in bilingual education.) Those not seeking certification meet this section of the Core Curriculum in the same way as other UTSA students.*
*Interdisciplinary studies students meet this section of the Core Curriculum in the same way as other UTSA students, as indicated in the description of the Core Curriculum in the Bachelor's Degree Regulations chapter of this catalog.

## Major requirements:

A. Interdisciplinary Studies requirements:

1. IDS Component. 15 semester hours:

Option 1: must be taken by students seeking teacher certification in either pre K-grade 6 or grades $1-8$, and may be taken by students not seeking teacher certification:

IDS 2003 Modes of Inquiry Across the Fields of Study
IDS 2113 Society and Social Issues
IDS 2203 World Civilization to the Fifteenth Century
IDS 2213 World Civilization Since the Fifteenth Century
IDS 3003 Science and Humanity
Option 2: required of students seeking teacher certification, and may be taken by those not seeking teacher certification:

COM 2123 Oral Presentation
IDS 3103 Language and Culture in a Pluralistic Society'
IDS 3303 Studies in Exceptionality ${ }^{2}$
IDS 3653 Music and Related Arts
RDG 3703 Introduction to Developmental Reading
RDG 3713 Introduction to Content Area Reading-Elementary
2. Specialization Component. One of the following areas of specialization must be selected by the student. Assistance in selection and lists of approved courses for each specialization are available from the Office of

[^17]Teacher Advising, Certification, and Placement in the Division of Education. Students are encouraged to select their area of specialization as early as possible.
a. $\quad 18$ to 30 hours as determined by appropriate divisions:

Art (30 semester hours)
Bilingual Education ( 18 semester hours)
Biology ( 19 semester hours)
Early Childhood (18 semester hours)
English (18 semester hours)
French (18 semester hours)
Generic Special Education (18 semester hours)
Geography ( 18 semester hours)
German (18 semester hours)
Health (18 semester hours)
History (18 semester hours)
Kinesiology ( 18 semester hours)
Life-Earth Science (25-27 semester hours)
Mathematics ( 18 semester hours)
Music (18 semester hours)
Physical Science ( 26 semester hours)
Reading (18 semester hours)
Spanish (18 semester hours)
b. 6 additional semester hours of certification requirements for those seeking teacher certification with an academic specialization in Bilingual Education, Generic Special Education, or Early Childhood.
B. Electives

Option 1: 18 semester hours of professional education for students seeking teacher certification (includes student teaching):

ECE 4303 Approaches to Teaching, Pre-K-Grade 2
ECE 4403 Approaches to Teaching, Grades 3-8
EDP 3103 Learning and Development in the School-Age Child
EDU 3103 Education in American Society
EDU 4106 Student Teaching: Elementary
or
EDU 4206 Student Teaching-Dual Placement: Elementary and Early Childhood or Special Education or Bilingual Education

Option 2: for students not seeking teacher certification: 23-32 semester hours of electives as determined by appropriate divisions.

Advisors in the Office of Teacher Advising, Certification, and Placement will assist IDS students who are not seeking certification to use their electives (including the 15 semester hours in the major) to develop a coherent program of study using existing UTSA course offerings. Possible options include outside fields in business, pre-law, pre-dental, and premedical.

## COURSE DESCRIPTIONS INTERDISCIPLINARY STUDIES <br> (IDS)


#### Abstract

2003 Modes of Inquiry Across the Fields of Study (3-0) 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.)


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.

## 2203 World Civilization to the Fifteenth Century

(3-0) 3 hours credit.
Study of the cultural histories of particular civilizations important for understanding the modern world: Meso-American, classical GrecoRoman, Chinese (Han and Tang dynasties), Latin American, medieval European, and Islamic in the Middle East and Africa, through the fifteenth century. Within a general framework of political, social, and economic history, the course emphasizes the literature, philosophy, art, and music of each of these civilizations. [TCCN: HIST 2321.]

## 2213 World Civilization Since the Fifteenth Century

(3-0) 3 hours credit.
Study of the contact of civilizations and cultural change since the fifteenth century, emphasizing cultural history, literature, philosophy, art, and music of the following periods and movements: the Renaissance, the Scientific Revolution and the Enlightenment, the Age of Revolution and Romanticism, Victorian culture and imperialism, and the culture of the twentieth century. [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.

## 2313 World Literature II, Dramatic and Lyric Modes (3-0) 3 hours credit. Prerequisite: ENG 1023 or an equivalent. <br> Exploration of the dramatic and lyric modes in literature across the world and across time. Works such as Medea, Blood Wedding, the screenplay of Citizen Kane, and an anthology of lyric poetry will be studied. Film

will be viewed in class in conjunction with the reading of screenplays; the question of translation will be addressed in conjunction with lyric poetry.

3003 Science and Humanity
(3-0) 3 hours credit.
Study of paradigms of the life, earth, and physical sciences, noting their effects on humanity. The course uses an integrative, thematic 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 today and in the 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, 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 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 courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

## BACHELOR OF SCIENCE DEGREE IN HEALTH

This program provides students with the opportunity to pursue a degree in Health with an emphasis in one of the following three areas: Community Health; Health and Fitness in Business and Industry; or School Health (Teacher Certification).

The minimum number of semester hours for this degree, including the Core Curriculum requirements, is 124 , of which at least 51 must be at the upperdivision level.

All candidates for the degree must complete:
A. 24 semester 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 3543 Growth and Development
HTH 4503 Survey of Human Disease
HTH 4533 Nutrition and Health
B. 12 semester hours from one of the following areas of emphasis:

Community Health or School Health:
HTH 3533 Drugs and Health

HTH 3553 Emotional Wellness
HTH 4513 Consumer Health
HTH 4523 Understanding Human Sexuality
Health and Fitness in Business and Industry:
HTH 4133 Exercise Physiology
KIN 3313 Anatomic Kinesiology
KIN 3323 Biomechanics
KIN 4113 Evaluation
C. 14-20 semester hours of required support work:

Community Health or School Health:
AHS 2083 Human Biology: Anatomy
AHS 2091 Human Biology: Anatomy Laboratory
AHS 2103 Human Biology: Physiology
AHS 2111 Human Biology: Physiology Laboratory
COM 2123 Oral Presentation
KIN 3443 Exercise Prescription
Health and Fitness in Business and Industry:
AHS 2083 Human Biology: Anatomy
AHS 2091 Human Biology: Anatomy Laboratory

AHS 2103 Human Biology: Physiology
AHS 2111 Human Biology: Physiology Laboratory
KIN 3413 Tactics
KIN 3443 Exercise Prescription
KIN 4103 Motor Development
KIN 4123 Psychosocial Aspects of Exercise and Sport
D. 6-8 semester hours of Internship:

Community Health:
HTH 4936 Internship in Health for Community Health emphasis
Health and Fitness in Business and Industry:
HTH 4932 Internship in Health
HTH 4936 Internship in Health
E. 6-28 semester hours of electives, to be chosen in consultation with the program advisor:

Community Health:
14 semester hours (3 lower-division, 11 upper-division)
School Health:
21 semester hours (of which 15 must be upper-division)
Health and Fitness in Business and Industry:
6 semester hours (upper-division)

## MINOR IN HEALTH

All students pursuing the minor in Health must complete 18 semester 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 the Undergraduate Advisor of Record in the Division of Education.

## COURSE DESCRIPTIONS <br> HEALTH <br> (HTH)

## 2513 Personal Health Management

(3-0) 3 hours of credit.
Emphasizes the concept of mind, body, and spirit as necessary components of total well-being; principles of preventive health; and selfresponsibility for personal health behaviors. (Credit cannot be earned for both HTH 2513 and KAH 2513.)

2523 First Aid and Safety
(3-0) 3 hours of 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. (Credit cannot be earned for both HTH 2523 and KAH 4543.)

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. (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. (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. (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. (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. (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 which was offered in Spring 1993.)

## 4133 Exercise Physiology

(2-2) 3 hours credit. Prerequisite: KIN 3443.
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.

## 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. (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. (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. (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 hours of independent study, regardless of discipline, will apply to a bachelor's degree.

## 4932 Internship in Health

(0-2) 2 hours credit. Prerequisites: 12 hours of health coursework and permission of the advisor.
The opportunity for work experience on campus or in a private or public health-related agency. Opportunities developed in consultation with faculty advisor and on-site coordinator. No more than 8 hours of internship will apply to a bachelor's degree.

## 4936 Internship in Health

(0-6) 6 hours credit. Prerequisites: 18 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 8 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 courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

## BACHELOR OF SCIENCE DEGREE IN KINESIOLOGY

The minimum number of hours for this degree, including the Core Curriculum requirements, is 126 , of which at least 51 must be at the upper-division level.

All candidates for the degree must complete:
A. 49 hours of foundation courses:

| HTH | 2523 | First Aid and Safety |
| :--- | :--- | :--- |
| HTH | 4133 | Exercise Physiology |
| KIN | 2001 | Skill Analysis in Physical Activity: Individual Activities |
| KIN | 2101 | Skill Analysis in Physical Activity: Team Sports |
| KIN | 2303 | Cultural and Scientific Foundations |
| KIN | 2331 | Physical and Motor Assessment |
| KIN | 2411 | Rhythmical Activities and Dance |
| KIN | 2423 | Introduction to Sport Management |
| KIN | 2433 | Outdoor Activities and Lifetime Sports |
| KIN | 3303 | Athletic Injuries and Training Procedures |
| KIN | 3313 | Anatomical Kinesiology |
| KIN | 3443 | Exercise Prescription |
| KIN | 4103 | Motor Development |
| KIN | 4113 | Evaluation |
| KIN | 4123 | Psychosocial Aspects of Exercise and Sport |
| KIN | 4343 | Movement Awareness |
| KIN | 4423 | Developmental/Adaptive Physical Activity |
| KIN | 4936 | Internship in Kinesiology |

B. 11 semester hours of support courses:

1. 4-5 semester hours from:

AHS 2083, 2091 Human Biology: Anatomy and Laboratory or
BIO 2123, 2132 Comparative Anatomy of Vertebrates and Laboratory
2. 4-5 semester hours from:

AHS 2103, 2111 Human Physiology and Laboratory or
BIO 3413, 3422 General Physiology and Laboratory
3. COM 2123 Oral Presentation
C. 12 semester hours of application courses, to be predetermined and approved by the program advisor.

## BACHELOR OF SCIENCE DEGREE IN KINESIOLOGY-WITH TEACHER CERTIFICATION IN ALL-LEVEL PHYSICAL EDUCATION

The minimum number of semester hours for this degree, including the Core Curriculum requirements, is 133 , of which at least 51 must be at the upper-division level.

All candidates for the degree must complete:
A. 41 semester hours of required courses:

| HTH | 2523 | First Aid and Safety |
| :--- | :--- | :--- |
| KIN | 2001 | Skill Analysis in Physical Activity: Individual Activities |
| KIN | 2101 | Skill Analysis in Physical Activity: Team Sports |
| KIN | 2303 | Cultural and Scientific Foundations |
| KIN | 2331 | Physical and Motor Assessment |
| KIN | 2401 | Gymnastics |
| KIN | 2411 | Rhythmical Activities and Dance |
| KIN | 2433 | Outdoor Activities and Lifetime Sports |
| KIN | 3303 | Athletic Injuries and Training Procedures |
| KIN | 3313 | Anatomical Kinesiology |
| KIN | 3413 | Tactics |
| KIN | 3443 | Exercise Prescription |
| KIN | 4113 | Evaluation |
| KIN | 4343 | Movement Awareness |
| KIN | 4403 | Motor Learning |
| KIN | 4413 | Coaching Athletics |
| KIN | 4423 | Developmental/Adaptive Physical Activity |

B. 9 semester hours, to be selected from the following:

HTH 4133 Exercise Physiology
KIN 2423 Introduction to Sport Management
KIN 3323 Biomechanics
KIN 4103 Motor Development
KIN 4123 Psychosocial Aspects of Exercise and Sport
KIN 4143 Advanced Athletic Training
C. 29 semester hours of support work:

BIO 1203, 1212 Biology I and Laboratory*
C\&I 4203 Models of Teaching in the Content Areas of the Secondary School

| COM | 2123 | Oral Presentation |
| :--- | :--- | :--- |
| ECE | 4403 | Approaches to Teaching, Grades $3-8$ |
| EDP | 3203 | Learning and Development in the Secondary School and |
|  |  | Adolescent |
| EDU | 3103 | Education in American Society |
| EDU | 4136 | Student Teaching: All Level |
| RDG | 3713 | Introduction to Content Area Reading-Elementary |

3 semester hours of English electives.
*Must be used to fulfill the Core Curriculum requirement in science.

## 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 hours of KIN 1001, KAH 1001, or HPE 1001, alone or in combination with KIN 1101, KAH 1101, or HPE 1101, will apply to a bachelor's degree.

## 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 hours of KIN 1101, KAH 1101, or HPE 1101, alone or in combination with KIN 1001, KAH 1001, or HPE 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. (Credit cannot be earned for both KIN 2001 and either HPE 2001 or 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. (Credit cannot be earned for both KIN 2101 and either HPE 2101 or KAH 2101.)

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. (Credit cannot be earned for both KIN 2303 and either HPE 2303 or KAH 2303.)

2331 Physical and Motor Assessment (0-3) 1 hour credit.
The opportunity to develop individual physical fitness and motor ability profiles for students in Kinesiology. Analysis of strengths and weaknesses in physical capacity. (Credit cannot be earned for both KIN 2331 and either HPE 2331 or KAH 2331.)

2401 Gymnastics (0-3) 1 hour credit.
Practice in gymnastic activities for the kinesiology major. (Credit cannot be earned for both KIN 2401 and either HPE 2401 or KAH 2401.)

2411 Rhythmical Activities and Dance
(0-3) 1 hour credit.
Practice in rhythmical techniques and various types of dance. (Credit cannot be earned for both KIN 2411 and either HPE 2411 or KAH 2411.)

2423 Introduction to Sport Management (3-0) 3 hours credit.
Introduction to concepts and skills which will prepare the student to become an effective leader of physical fitness, sport and health, and physical education programs. [TCCN: PHED 1336.]

2433 Outdoor Activities and Lifetime Sports
(2-2) 3 hours credit. Prerequisites: HTH 2523 or consent of instructor. Programming theory of and participation in outdoor activities and life sports. Weekend class field trips required. Lab fees will be assessed. (Credit cannot be earned for both KIN 2433 and either HPE 2433 or KAH 2433.)

3303 Athletic Injuries and Training Procedures
(3-0) 3 hours credit.
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. (Credit cannot be earned for both KIN 3303 and either HPE 3303 or KAH 3303.)

## 3313 Anatomic Kinesiology

(3-0) 3 hours credit.
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.

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.
Administration of games, sports, and physical fitness activities for the adolescent through adulthood. Some fieldwork experience may be re-
quired. (Credit cannot be earned for both KIN 3413 and either HPE 3413 or KAH 3413.)

3443 Exercise Prescription
(3-0) 3 hours credit.
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. (Credit cannot be earned for both KIN 3443 and either HPE 3443 or KAH 3443.)

4103 Motor Development (3-0) 3 hours credit.
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.
Application of test, measurement, and evaluation theory. Emphasis is placed on proper selection and administration of tests and appropriate evaluation of test results using basic statistical procedures. (Credit cannot be earned for both KIN 4113 and either HPE 4113 or 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, i.e. 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.

4343 Movement Awareness
(3-0) 3 hours credit.
Study of concepts of movement awareness and the elements of movement which are the basis of all movement capacities. Application of these concepts to the learning of motor skills will be included. (Credit cannot be earned for both KIN 4343 and either HPE 4343 or KAH 4343.)

## 4403 Motor Learning

(3-0) 3 hours credit. Prerequisite: KIN 4113.
Functional applications of motor control and learning theory in skill instruction and sports performance. Motor learning laboratory required. Lab fee will be assessed. (Credit cannot be earned for both KIN 4403 and either HPE 4403 or KAH 4403.)

## 4413 Coaching Athletics

(3-0) 3 hours credit.
Theory of coaching relevant to athletics. Emphasis on organization and content involved in coaching a variety of sports. (Credit cannot be earned for both KIN 4413 and either HPE 4413 or KAH 4413 .)

4423 Developmental/Adaptive Physical Activity
(3-0) 3 hours credit.
A developmental approach to the study of disabilities in physical activity. Legislation, pathologies, and adaptation principles. Class field trips required. (Credit cannot be earned for both KIN 4423 and either HPE 4423 or KAH 4423.)

## 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 hours of independent study, regardless of discipline, will apply to a bachelor's degree.

4936 Internship in Kinesiology
(0-6) 6 hours credit. Prerequisite: Consent of instructor.
Supervised internship with appropriate agency in the field of kinesiology and sport management.

## 4941 Practicum in Kinesiology

(0-1) 1 hour 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 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 courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

## COURSE DESCRIPTIONS CURRICULUM AND INSTRUCTION (C\&I)

## 4103 The Secondary School

(3-0) 3 hours credit. Prerequisites: Admission to teacher certification program, EDU 3103 and EDP 3203, or consent of instructor.
Study of curricular, instructional, and management approaches to secondary education. Emphasis on developing effective instructional strategies and planning and management skills for all types of secondary students, including special populations. Use of instructional media and technology, and development of effective evaluation strategies. Twenty hours of observation in a school setting are required. Not offered in the summer.

4203 Models of Teaching in the Content Areas of the Secondary School (3-0) 3 hours credit. Prerequisites: Admission to teacher certification program, EDU 3103, EDP 3203, and C\&I 4103, or consent of instructor. Curricular, instructional, and management applications to subject areas taught in the secondary schools. Emphasis on developing instructional and curricular strategies that are effective in teaching content skills. Application of instructional media, classroom management, and evaluation for the content areas. Twenty-five hours of observation in a school setting are required. This course may be offered in multiple sections according to subject-matter emphasis. Not offered in the summer.

4913 Independent Study
3 hours credit. Prerequisites: Permission in writing (form available) of 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 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 courses may be repeated for credit when the topics vary, but not more than 6 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. Such factors are discussed in light of the social and cognitive development of children and its affect on the interaction of children with text. 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, social, and affective development and creative expression, as experienced in structured and nonstructured indoor and outdoor situations related to the socialization of young children. Field-based experiences required.

## 3123 Early Childhood Development

(3-0) 3 hours credit.
Study of growth and development during early childhood. Review and integration of physical, psychological, social, and cognitive development affecting growth in children, including culturally different populations and persons with disabilities. Field-based experiences required.

## 3133 Programs in Early Childhood

(3-0) 3 hours credit.
Survey of historical, philosophical, psychological, and sociocultural foundations of early childhood program development. Emphasis on connecting past and current trends and approaches to developmental programs designed to meet the growth and learning needs of young children, including persons with disabilities and gifted and talented and culturally different populations. Field-based experiences required.

## 3203 Tests and Measurement 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, formal, and group tests and measurements. Field-based experiences required.

## 4103 Guidance of Young Children in Groups

(2-2) 3 hours credit.
Study of appropriate adult roles in guiding the growth, learning, and development of children in group situations. Emphasis on classroom management and discipline; cultural dynamics; guiding children in task involvement, human interaction, cooperation, and uses of materials; and mainstreaming the developmentally handicapped. Field-based experiences required.

## 4113 Language Development in Early Childhood

(3-0) 3 hours credit.
Introduction to theories of language and cognitive development in young children, with implications for language instruction and beginning reading. Review of the development of symbolic logic and language learning needs of children from different cultural and linguistic backgrounds. Field-based experiences required.

## 4123 Family and Community Resources in Early Childhood

(3-0) 3 hours credit.
Study of approaches to family, community, societal, cultural, and ideological support systems in children's growth, learning, and development. Emphasis on how these factors are related in the permissive-restrictive dimensions of childbearing and socialization in broad perspectives. Included are children "at risk" and related factors. Field-based experiences required.

## 4303 Approaches to Teaching, Pre-K-Grade 2

(2-2) 3 hours credit. Prerequisites: Admission to teacher certification program, EDP 3103, EDU 3103, and IDS 2003.
Study of the different approaches or models of teaching in preschool and primary grades, with emphasis on development of curriculum for classroom instruction and evaluation, classroom management, and instructional technology. Twenty hours of directed field-based experience in preschool/elementary school classrooms are required. Not offered in the summer.

4403 Approaches to Teaching, Grades 3-8
(2-2) 3 hours credit. Prerequisites: Admission to teacher certification program, EDP 3103, EDU 3103, and IDS 2003.
Examination of different pedagogical approaches to the teaching/learning processes and how they can be applied in the upper elementary and middle school curriculum, with emphasis on designing interdisciplinary learning experiences for upper elementary age children, developing children's cognitive skills, and evaluating teaching and learning. Twentyfive hours of directed field experience in elementary/middle school classrooms are required. Not offered in the summer.

4913 Independent Study
3 hours credit. Prerequisite: Permission in writing (form available) of 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 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 courses may be repeated for credit when the topics vary, but not more than 6 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. Prerequisite: Sophomore standing; 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 differences, tests and measurements, motivation, and elementary-level classroom management.

3203 Learning and Development in the Secondary School and Adolescent (3-0) 3 hours credit. Prerequisite: Sophomore standing.
An introduction to major theories of learning and development, with an emphasis on applications at the secondary level. Topics also include individual differences, tests and measurements, motivation, and sec-ondary-level classroom management.

3603 Introduction to Exceptionality (3-0) 3 hours credit.
A study of individuals, groups, and populations designated or characterized as disabled, handicapped, deviant, or exceptional by various agencies and organizations historically and currently in society. Etiology, characteristics, services, and efficacy of treatment and intervention will be studied. (Credit may not be earned for both EDP 3603 and IDS 3303.)

3623 Assessment of Exceptional Children
(3-0) 3 hours credit. Prerequisite: EDP 3603 or consent of instructor.
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.

3633 Behavior Management of Exceptional Children
(3-0) 3 hours credit. Prerequisite: EDP 3603 or consent of instructor.
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.

3643 Language and Cognitive Development and Dysfunction
(3-0) 3 hours credit. Prerequisites: Concurrent enrollment in EDP 3603 and 3653.
A study of theories, research, and practices related to language development and dysfunctions. The relationship of language, cognition, and disabilities will be investigated.

## 3653 Practicum in Special Education (Introduction)

3 hours credit. Prerequisites: Concurrent enrollment in EDP 3603 and 3643.

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 per week (mornings) in fieldbased placements.

3663 Practicum in Special Education (Intermediate)
3 hours credit. Prerequisites: EDP 3603, 3643, and 3653; concurrent enrollment in EDP 3623, 3633, or consent of instructor.
The study of curriculum content, practices of habilitation, education, and training provided to individuals with disabilities. Theories, research, and contemporary practices will be emphasized in conjunction with evalua-
tion of efficacy. Students enrolled in this course will be required to spend 10 hours per week (mornings) in field-based placements.

## 4603 Working with Parents of Exceptional Children

(3-0) 3 hours credit. Prerequisite: 9 semester hours of special education coursework or consent of instructor.
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.

## 4653 Practicum in Special Education (Advanced)

3 hours credit. Prerequisites: EDP 3603, 3623, 3633, 3643, 3653, 3663; and concurrent enrollment in EDP 4603.
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 provision of services.

4953 Special Studies in Educational Psychology 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 not more than 6 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. Prerequisite: Sophomore standing.
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. (Credit may not 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 a Kindergarten Endorsement will studentteach in a kindergarten classroom; individuals pursuing an English as a Second Language Endorsement (ESL) will be placed in a Texas Education Agency-approved ESL program. NOTE: EDU 4003 may not be taken concurrently with EDU 4106, 4116, $4126,4136,4206,4403,4413,4416,4426,4436,4446$, or 4933.

## 4106 Student Teaching: Elementary

6 hours credit. Prerequisites: Admission to an approved teacher certification program and consent of the Director of Student Teaching. Individuals must apply to the Director of Student Teaching one semester in advance.
Twelve 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: Admission to the professional semester and consent of the Director of Student Teaching. Individuals must apply to the Director of Student Teaching one semester in advance.Twelve consecutive weeks of full-day student teaching in grades six to twelve. Individuals pursuing a Basic Secondary Certificate, Options I or III, will student-teach in the single teaching field for which certification is sought. Individuals pursuing a Basic Secondary Certificate, Options II and IV, will have experience in each of the two teaching fields for which certification is sought. Meets student teaching requirements for a Secondary Certificate, Options I, II, III, and IV.

4126 Student Teaching: Secondary-ESL
6 hours credit. Prerequisites: Admission to the professional semester and consent of the Director of Student Teaching. Individuals must apply to the Director of Student Teaching one semester in advance.
Twelve consecutive weeks of full-day student teaching in grades six to twelve, including six weeks of full days in one teaching field and six weeks of full days in a Texas Education Agency-approved English as a Second Language (ESL) program. Individuals pursuing Bilingual Education or Generic Special Education will student-teach six weeks of full days in one teaching field with students having special needs, and six weeks of full days in a Texas Education Agency-approved English as a Second Language program. Meets student teaching requirements for a Secondary Certificate, Options I, II, III, or IV, with an ESL endorsement.

## 4136 Student Teaching: All Level

6 hours credit. Prerequisites: Admission to the professional semester and consent of the Director of Student Teaching. 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 one to eight) and six weeks of full days in a secondary school (grades six to twelve) in the certificate area sought. Meets student teaching requirements for All-Level Certificate.
NOTE: Individuals may not concurrently pursue an All-Level Certificate and an endorsement in Kindergarten and/or English as a Second Language (ESL).

## Student Teaching-Dual Placement: Elementary and Early Childhood, Generic Special Education, or Bilingual Education

6 hours credit. Prerequisites: Admission to an approved teacher certification program 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 a regular elementary classroom and six consecutive weeks in an early childhood, special education, or bilingual classroom under the supervision of university faculty. Weekly seminars explore issues in teaching practice.

4403 Student Teaching: All-Level Music-Elementary
3 hours credit. Prerequisites: Concurrent enrollment in EDU 4413, admission to the music teacher certification program, 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 elementary school (grades one to eight) under the supervision of university faculty. Meets student teaching requirements for the elementary portion of the All-Level Certificate.

## 4413 Student Teaching: All-Level Music-Secondary

3 hours credit. Prerequisites: Concurrent enrollment in EDU 4403, admission to the music teacher certification program, 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 a secondary school (grades six to twelve) under the supervision of university faculty. Meets student teaching requirements for the secondary portion of the All-Level Certificate.

## 4926 Internship in Education

6 hours credit. Prerequisites: Consent of the Office of Teacher Advising, Certification, and Placement; admission to the teacher certification program; consent of the Director of Student Teaching; and the following courses: elementary-completion of IDS 2003, EDU 3103, EDP 3103, ECE 4303, and ECE 4403; secondary-completion of EDU 3103, EDP 3203, C\&I 4103, and concurrent enrollment in C\&I 4203 (for the first semester). Enrollment in this class is limited to post-baccalaureate students only who are fulfilling joint school district and University requirements under SB 218.
Internship to be jointly supervised by an employing school district and The University of Texas at San Antonio. Experiences will relate to the intern as the teacher-of-record in the classroom. Districts will need to provide observation time for teachers seeking certification in Special Education, ESL/Bilingual Education, or Early Childhood.

## 4933 Internship in Education-IDS

3 hours credit. Prerequisites: Consent of Office of Teacher Advising, Certification, and Placement; admission to the teacher certification program; consent of the Director of Student Teaching; and completion of the following courses: ECE 4303, ECE 4403, EDP 3103, EDU 3103 and IDS 2003. Enrollment in this class is limited to post-baccalaureate
students who are fulfilling joint school district and University requirements through employment as a teacher for their internship.
Internship to be jointly supervised by an employing school district and The University of Texas at San Antonio. 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 hours of credit will apply to the post-baccalaureate program. Provision for observation for those seeking Early Childhood, Bilingual, or Special Education certification will need to be supplied by the employing school districts.

## 4943 Internship in Education-Secondary

3 hours credit. Prerequisites: Consent of the Office of Teacher Advising, Certification, and Placement; admission to a teacher certification program; consent of the Director of Student Teaching; and the following courses: completion of C\&I 4103, EDP 3203, EDU 3103, and concurrent enrollment in C\&I 4203 (for the first semester). Enrollment in this class is limited to post-baccalaureate students who are fulfilling joint school district and University requirements through employment as a teacher for their internship.
Internship to be jointly supervised by an employing school district and The University of Texas as San Antonio. 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 hours of credit will apply to the post-baccalaureate program. Provision for observation for those seeking ESL and Special Education certification will need to be supplied by the employing school districts.

## 4953 Special Studies in Education

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 not more than 6 hours, regardless of the discipline, will apply to a bachelor's degree.

4993 Honors Thesis
(3-0) 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 READING (RDG)

## 0011 Reading Review

(1-0) 1 hour credit.
Individualized instruction to help students succeed at reading universitylevel materials. Students receive focused guidance on developing those specific strategies that improve performance, including determining word meaning, understanding main ideas, identifying the writer's purpose, and using critical reasoning and study skills.

0013 Reading Improvement
(3-0) 3 hours credit.
Practical instruction in strategies for improving reading of universitylevel materials. Strategies developed include determining word meanings; understanding main ideas and supporting details; identifying writer's purpose, point of view, and intended meaning; analyzing relationships among ideas; using critical reasoning when reading; and study skills.

## 3703 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. (Credit may not be earned for both RDG 3703 and C\&I 3703.)

## 3713 Introduction to Content Area Reading-Elementary

(3-0) 3 hours credit.
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. (Credit may not be earned for both RDG 3713 and C\&I 3713.)

## 3723 Children's and Adolescent Literature

 (3-0) 3 hours credit.Study of written and oral literature for children from first to twelfth grades from the combined perspectives of literary and child 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 social and cognitive development of children and their effect on the interaction of children with text.

## 3733 Reading Problems

(3-0) 3 hours credit.
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. Twenty hours of directed field experience in elementary/middle school classrooms are required. (Credit may not be earned for both RDG 3733 and C\&I 3743.)

[^18]3753 Oral Language and Reading
(3-0) 3 hours credit.
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 discourse and written discourse.

3763 Reading and Studying as a Cognitive Process (3-0) 3 hours credit.
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, notetaking, 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.
Study of the reading process and of materials and techniques for teaching reading in the secondary school. Considers the range of reading ability of secondary students, texts used, and strategies for teaching vocabulary, word recognition, comprehension, and learning in a variety of content areas. Attention is given to diagnosis and treatment of reading difficulties at the secondary school level. (Credit may not be earned for both RDG 3773 and C\&I 3763.)

4103 Reading Comprehension
(3-0) 3 hours credit.
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.

4113 Relationships between Reading and Writing (3-0) 3 hours credit.
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.

## 4123 The Social Psychology of Literacy

(3-0) 3 hours credit.
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.

## 4133 Critical Issues in Reading Research

(3-0) 3 hours credit.
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.

## 4913 Independent Study

(3-0) 3 hours credit. Prerequisites: Permission in writing (form available) of 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 hours of independent study, regardless of discipline, will apply to a bachelor's degree.

## 4953 Special Studies in Reading

(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies courses may be repeated for credit when the topics vary, but not more than 6 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 Criminal Justice, Geography, Political Science, and Sociology. The Division also offers minors in Geography, Political Science, Sociology, International Studies, and Public Administration.

At least 30 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 control of their field through careful allocation of some of their elective credit hours.

All social and policy sciences majors require the student to complete at least six semester hours of support work. These courses, which require advance approval from the advisor, should serve to introduce the student to aspects of the social sciences in addition to those entailed in the coursework within the student's major discipline.

## INTERNSHIP STUDY

Majors in the Division of Social and Policy Sciences may apply 3 or 6 semester 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 is normally done by Division faculty members. 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.

## DIVISIONAL HONORS

The Division of Social and Policy Sciences designates certain of its outstanding students as Honors students and provides the opportunity for advanced study under close faculty supervision.

Selection of students for admission to the Division Honors Program 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 grade-point average of 3.0 overall 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 admitted to the Honors program are expected to enroll in the appropriate Honors Thesis course during the final two semesters in residence. 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 CRIMINAL JUSTICE

This program 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 minimum number of semester hours required for this degree, including the Core Curriculum requirements, is 126 . The criminal justice major, through consultation with faculty advisors, should choose elective courses within the Core Curriculum requirements which will develop a fundamental awareness of the complex social and cultural issues in contemporary American society.

All candidates for the degree must complete:
A. 30-33 semester hours of criminal justice coursework:

1. 3 semester hours of introductory studies:

CRJ 2113 The American Criminal Justice System or an equivalent
2. 15 upper-division semester hours:

CRJ 3013 Research Methods in Criminal Justice
CRJ 3153 Nature of Crime and Justice
CRJ 3213 Administrative Organization
CRJ 3623 Substantive Criminal Law
CRJ 4973 Senior Seminar in Criminal Justice
3. 9 semester hours, to be selected from one of the following areas of emphasis:

Law Enforcement
CRJ 3133 Basic Criminalistics
CRJ 3143 Intermediate Criminalistics
CRJ 4123 Concepts of Investigation
CRJ 4413 Contemporary Police Practices
CRJ 4423 Issues in Law Enforcement Administration

## Corrections-Juvenile Justice

CRJ 3513 Corrections: Theory and Practice
CRJ 3533 Correctional Alternatives
CRJ 4573 Correctional Administration
CRJ 4613 Correctional Counseling and Services
CRJ 4623 Special Correctional Populations

## Legal Studies

CRJ 3603 Paralegal Management Practices
CRJ 3613 Legal Research and Writing
CRJ 3633 Trial and Evidence
CRJ 4633 Criminal Procedure
CRJ 4813 Law, Courts, and the Legal System

## Security Management

| CRJ | 3163 | Introduction to Security Management |
| :--- | :--- | :--- |
| CRJ | 3193 | Security Management Practices |
| CRJ | 4203 | Issues in Security Management |
| CRJ | 4213 | Legal Issues in Security Management |
| CRJ | 4733 | Intelligence Programs and National Security |

4. 3 or 6 semester hours of CRJ 4933,6: Internship in Criminal Justice, to be taken in consultation with the student's faculty advisor. 3 or 6 semester 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. 18 semester hours of upper-division electives, chosen in consultation with the student's advisor. 6 of these credits must be upper-division criminal justice courses.
C. 24 semester hours of electives.

## COURSE DESCRIPTIONS <br> CRIMINAL JUSTICE <br> (CRJ)

## 2113 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. [TCCN: CRIJ 1301.]

3003 Criminal Justice Foundations
(3-0) 3 hours credit.
A course designed for new criminal justice majors, to orient them to central themes in criminal justice, to encourage critical, ethical, and systematic thinking, to develop note-taking and communication skills, to offer training in library research and report preparation, and to stimulate interest in careers and professionalism in justice delivery organizations.

## 3013 Research Methods in Criminal Justice

(3-0) 3 hours credit. Prerequisite: Completion of Core Curriculum requirement in mathematics.
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.)

## 3133 Basic Criminalistics

(3-0) 3 hours credit.
Application of the physical and natural sciences to the administration of criminal justice probability, value and limitation of various types of physical evidence, and basic processing techniques.

## 3143 Intermediate Criminalistics

(3-0) 3 hours credit. Prerequisite: CRJ 3133 or an equivalent.
Application of principles of identification and individualization to common, frequently occurring physical evidence materials, with emphasis on trace evidence and biological materials.

## 3153 Nature of Crime and Justice

(3-0) 3 hours credit.
A multidisciplinary survey of positivism 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.

3163 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.

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 2113 or an 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.

3513 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.

## 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.
Detailed study of theory and practice of legal research. Development and refinement of legal writing techniques.

3623 Substantive Criminal Law
(3-0) 3 hours credit. Prerequisite: CRJ 2113 or an 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 3133 or consent of instructor. Examination of theories and practices of the investigation process in the criminal justice system; specific operational techniques; and application of innovative techniques.

4203 Issues in Security Management
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Managerial aspects of security in both public and private sectors; security management issues associated with employment screening and testing; uses of technological devices; legal challenges to security practices; safety-security conflicts; white-collar crime; industrial espionage; regulatory constraints; and other topics.

## 4213 Legal Issues in Security Management

(3-0) 3 hours credit. Prerequisite: CRJ 3163 or consent of instructor. 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).

## 4413 Contemporary Police Practices

(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Examination of the management of law-enforcement organizations through administrative structure and process. Analysis of program development and implementation in providing police service.

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, manpower usage, civil liability, and programs designed to improve the delivery of law-enforcement services.

4573 Correctional Administration
(3-0) 3 hours credit. Prerequisite: CRJ 3213, 3513, or an equivalent.
An examination of the administrative, organizational, and management issues affecting agencies which 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. Prerequisite: Consent of instructor.
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 consent of instructor. 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.

4713 Organized and White-Collar Crime
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Study of the development of organized and white-collar criminal activity through generic and legal definitions. Federal and State relationships in the response of the criminal justice system to these phenomena.

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. Prerequisite: Consent of instructor.
Examines a wide range of issues concerning intelligence and national security.

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 Policymaking
(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 policymaking.

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 matching concepts, theories, and models of justice with factual events, laws, administrative decisions and policies, and judicial holdings.

4813 Law, Courts, and the Legal System
(3-0) 3 hours credit.
Examines American court systems (state and federal), their powers, remedies, limitations, and procedures under the case method in civil and criminal matters, and the contributions of courts to governance and how they produce or fail to provide justice.

4913 Independent Study
3 hours credit. Prerequisite: Permission in writing (form available) of 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 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 3213 and 3623 ; CRJ 3153 or SOC 3113; at least one course in area of emphasis; consent of academic advisor and Internship Coordinator.
Supervised experience in an administrative setting which 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 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 the regular course offerings. Special Studies courses may be repeated for credit when the topics vary, but no more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

## 4973 Seminar in Criminal Justice

(3-0) 3 hours credit. Prerequisites: Senior standing and consent of instructor.
A seminar reserved for criminal justice majors during their final year. Review of significant new research or case studies in criminal justice; individualized research projects may be required. May not be repeated for credit.

## 4993 Honors Thesis

(3-0) 3 hours credit. Prerequisites: Enrollment limited to candidates for Honors in Criminal Justice 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 GEOGRAPHY

The minimum number of semester hours required for this degree, including the Core Curriculum requirements, is 120 . Thirty-nine of the total semester hours required for the degree must be at the upper-division level.

All candidates for the degree must complete:
A. 33 semester hours in the major, 24 of which must be at the upper-division level:

1. 15 semester hours:

9 required semester hours:
GRG 2613 Physical Geography
GRG 2623 Human Geography
GRG 3323 Spatial Analysis
6 additional semester hours, to be selected from:
GRG 3113 Geography of the U.S. 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 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 hours of courses in the social sciences outside the major, chosen with the consent of the advisor.
C. 27 semester hours of electives.

## MINOR IN GEOGRAPHY

All students pursuing the minor in Geography must complete 18 semester hours:
A. 6 semester hours of courses in core concepts and regions:
$\begin{array}{lll}\text { GRG } & 1013 & \text { Fundamentals of Geography } \\ \text { GRG } & 1023 & \text { World Regional Geography }\end{array}$
B. 3 semester hours of upper-division regional geography, to be selected from the following:

GRG 3113 Geography of the U.S. and Canada
GRG 3123 Geography of Latin America
GRG 3133 Geography of Europe
GRG 3153 Geography of Texas
C. 9 hours of upper-division electives in geography.

To declare a minor in Geography, to obtain advice, or to seek approval of substitutions for course requirements, student should consult the Undergraduate Advisor of Record in the Division of Social and Policy Sciences.

## COURSE DESCRIPTIONS GEOGRAPHY <br> (GRG)

## 1013 Fundamentals of Geography

(3-0) 3 hours credit.
Introduction to the study of physical and cultural features of the earth, their distributions, causes, and consequences to man. Topics include landforms, climate, natural resources, population, human behavior in spatial context, economic growth, and urbanization.

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, SubSaharan 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 U.S. 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.
Selected geographic aspects of the European culture area, including Western Europe, Eastern Europe, and the Baltics.

## 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 Amerindians and 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.
An analysis of the physical, economic, and cultural patterns of the State of Texas as they vary across its geographic regions. Examines physical and settlement patterns, changes in patterns of agriculture, and manufacturing, population, and regional growth issues.

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

(3-0) 3 hours credit. Prerequisite: Consent of instructor.
The design, construction, and reproduction of maps; the history of mapping and cartographic theory.

## 3323 Spatial Analysis

(3-0) 3 hours credit. Prerequisite: Consent of instructor.
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 unvariate and multivariate analysis of areal data.

## 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. Agricultural, industrial, retail, and service locations are discussed, using locational theoretic models and illustrated by local case studies.

3613 Conservation of Resources
(3-0) 3 hours credit.
A survey of the distribution of world resources. with special emphasis on new and novel solutions to problems of resource scarcity. Topics include food, 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, territorial morphology, boundaries, core areas, and emerging supranationalism.

3653 Geographic Perspectives on Women
(3-0) 3 hours credit.
The study of women's roles in the spatial organization of society. Topics may include female spatial perception and territoriality, female migration and travel behavior, women's roles in development, female relationships with the physical environment, and the distribution of female poverty.

3713 Weather and Climate
(3-0) 3 hours credit.
Analysis of the elements and causes of daily weather, climatic classification, and climate change. Study of world distributions and components of climate.

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, 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 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 credit hours may be earned through Internship in Geography.

4953 Special Studies in Geography
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 courses may be repeated for credit when the topics vary, but not more than 6 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 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 POLITICAL SCIENCE

The minimum number of semester hours required for this degree, including the Core Curriculum requirements, is 120 . Thirty-nine of the total semester hours required for the degree must be at the upper-division level.

All candidates for the degree must complete:
A. 33 semester 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 hours of courses, to be 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 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
Comparative Politics or International Relations
Public Administration or Public Law
With advisor approval, a maximum of 6 hours may be applied to the major from the following disciplines: Economics (ECO), History (HIS), Sociology (SOC), and Social Science (SSC).
4. 3 semester hours of social science courses (SSC).
5. One senior-level seminar, to be 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 hours of courses in the social sciences outside the major, chosen with consent of the advisor.
C. 27 semester hours of electives.

Public Administration Emphasis: Students interested in a Public Administration emphasis within the political science major should consult with their faculty advisor concerning specific course requirements and scheduling.

## MINOR IN POLITICAL SCIENCE

All students pursuing the minor in Political Science must complete 18 semester hours, 12 of which must be upper-division:
A. 6 semester hours of lower-division courses, to be 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 hours. Students must take at least one upperdivision 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 3543 Russian Foreign Policy

## Comparative Politics

POL 3343 Communism and Post-Communism
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, to obtain advice, or to seek approval of substitutions for course requirements, student should consult the Undergraduate Advisor of Record in the Division of Social and Policy Sciences.

## COURSE DESCRIPTIONS POLITICAL SCIENCE (POL)

## 1013 Introduction to American Politics

(3-0) 3 hours credit.
A broad survey of the basic elements of American and Texas politics. Attention is given to the normative and Constitutional foundations of the political culture, the development of major governmental institutions, political organizations and processes, and major policy outputs. (Formerly POL 1053. Credit cannot be earned for both POL 1013 and POL 1053.) [TCCN: GOVT 2301.]

1023 The Politics of the American Economy
(3-0) 3 hours credit. Prerequisite: POL 1013 or consent of instructor. 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. (Formerly POL 2063. Credit cannot be earned for both POL 1023 and POL 2063.)

1063 Ethics in America
(3-0) 3 hours credit. Prerequisite: POL 1013 or consent of instructor. Philosophical, legal, and practical problems at the intersection of American goals and values. Comparison of deontological, utilitarian, and radical-critical ethical theories, with special attention to the ethical challenge presented by women, people of color, homosexuals, and people
with disabilities. Historical account of the changing position of religion and tradition in America. Investigation of ethical ambiguity of the state, problem of accountability, obligation, and civil disobedience.

## 1083 The United States in the World

(3-0) 3 hours credit. Prerequisite: POL 1013 or consent of instructor. 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.

## 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 2307.]

## States, Communities, and Public Policy

(3-0) 3 hours credit. Prerequisite: POL 1013 or consent of instructor.
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.

## 2023 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.

## 2083 Current Issues in World Politics

(3-0) 3 hours credit.
An examination of the issues which 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: Completion of the Core Curriculum requirement in political studies.
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: Completion of the Core Curriculum requirement in political studies.
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. [TCCN: GOVT 2335.]

## 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: Completion of the Core Curriculum requirement in political studies.
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. [TCCN: GOVT 2303.]

## 2623 Law and Society

(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in political studies.
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: Completion of the Core Curriculum requirement in political studies.
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. [TCCN: GOVT 2331.]

2703 Scope and Methods of Political Science (3-0) 3 hours credit.
How to conduct, interpret, organize, and present political research. Topics may include normative and empirical political theory, and quantitative and qualitative political analysis. (Credit cannot be earned for both SSC 3013 and POL 2703.)

[^19]
## 3113 American Political Theory

(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in political studies.
The political theory of the Constitution, the Federalist Papers, Adams, Jefferson, Paine, Calhoun, Thoreau, Social Darwinism, Pragmatism, and twentieth-century political thought.

3133 Political Philosophy: Ancient and Medieval
(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in political studies.
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: Completion of the Core Curriculum requirement in political studies.
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: Completion of the Core Curriculum requirement in political studies.
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: Completion of the Core Curriculum requirement in political studies.
A reading-intensive upper-level lecture course for departmental 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: Completion of the Core Curriculum requirement in political studies.
A reading-intensive upper-level lecture course for departmental majors and women's studies minors. It will introduce students to classical discussions within the Western political theory tradition via an inquiry into their conceptions of women. Students will acquire understanding of the conceptions of women, the family, and the domestic sphere as they have come to us through a male-centered philosophical tradition.

## 3223 Judicial Politics

(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in political studies.
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: Completion of the Core Curriculum requirement in political studies.
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: Completion of the Core Curriculum requirement in political studies.
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 .)

3283 The American Presidency
(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in political studies.
The 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: Completion of the Core Curriculum requirement in political studies.
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. Prerequisite: 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: Completion of the Core Curriculum requirement in political studies.
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 power into political power.

## 3343 Communism and Post-Communism

(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in political studies.
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: Completion of the Core Curriculum requirement in political studies.
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, neocorporatism, and the executive.

## 3363 Political Parties and Interest Groups

(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in political studies.
The function of political parties on the political process; interest groups and their function as private governments and role in shaping public policy.

[^20]3393 Latin American Politics
(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in political studies.
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: Completion of the Core Curriculum requirement in political studies.
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: Completion of the Core Curriculum requirement in political studies.
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 U.S.

3423 Politics in Russia and the Post-Soviet States
(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in political studies.
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: Completion of the Core Curriculum requirement in political studies.
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: Completion of the Core Curriculum requirement in political studies.
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 entitled "Asian Politics"; credit cannot be earned for both.)

[^21]ment, political parties, the presidency, economic development and policy, contemporary leadership, and elites.

## 3463 Politics of the Third World

(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in political studies.
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 about Latin American problems and major 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: Completion of the Core Curriculum requirement in political studies.
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 non-tariff barriers may also be analyzed.

## 3493 Politics of the Middle East

(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in political studies.
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 Mideastern countries as well as superpowers' involvement.

## 3503 American Foreign Policy Since World War II

(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in political studies.
Major private interests and public institutions involved in American foreign policymaking; public opinion and foreign involvement; specific policies toward international organizations and major world regions.

## 3513 International Organizations

(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in political studies.
Major issues involving international organizations: nationalism and globalism; financing problems; international staffing; voting patterns; peacekeeping; and international conferences. Organizations to be 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: Completion of the Core Curriculum requirement in political studies.
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 peacemaking will also be covered.

## 3533 Japan in World Politics

(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in political studies.
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: Completion of the Core Curriculum requirement in political studies.
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 policymaking, 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: Completion of the Core Curriculum requirement in political studies.
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: Completion of the Core Curriculum requirement in political studies.
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: Completion of the Core Curriculum requirement in political studies.
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: Completion of the Core Curriculum requirement in political studies.
A survey of personnel management in the public sector. Topics examined may include recruitment, civil service and patronage appointments, career development, manpower utilization, conflict of interest questions, employee organization and relations, and affirmative action.

## 3713 Comparative Systems of Public Administration

(3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in political studies.
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: Completion of the Core Curriculum requirement in political studies.
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: Completion of the Core Curriculum requirement in political studies.
Explores the basic relationships between government, citizens, and those forces that affect the dispensation of government largesse. The manpower 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: Completion of the Core Curriculum requirement in political studies.
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.

## 4913 Independent Study

3 hours credit. Prerequisites: Permission in writing (form available) of 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 hours of independent study, regardless of discipline, will apply to a bachelor's degree.

## 4933,6 Internship in Political Science

3 or 6 hours credit. Prerequisite: Consent of internship coordinator. Supervised experience relevant to political science within selected community organizations. A maximum of 6 credit hours may be earned through Internship in Political Science.

## 4953 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 courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

## 4973 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.

4993 Honors Thesis
3 hours credit. Prerequisite: Enrollment limited to candidates for Honors in Political Science 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 SOCIOLOGY

The minimum number of semester hours required for this degree, including the Core Curriculum requirements, is 120 . Thirty-nine of the total semester hours required for the degree must be at the upper-division level.

All candidates for the degree must complete:
A. 33 semester hours in the major, 24 of which must be at the upper-division level:

1. 18 semester hours of required courses:

9 semester hours :
SOC 1013 Introduction to the Study of Society
SOC 3003 Sociological Foundations
(No more than 9 hours of upper-division sociology may be taken at UTSA before completing SOC 3003.)
SOC 3343 Classical Sociological Theory or
SOC 3353 Contemporary Sociological Theory
6 semester hours of methods courses:
SOC 3313 Conceptualization and Measurement in Sociology
Either
SOC 3323 Research Design and Application in Sociology
or
SOC 3333 Survey Research Methods
3 semester hours:
SOC 4973 Sociology Senior Seminar
or
SOC 4993 Honors Thesis
2. 15 additional semester 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
B. 6 semester hours of support work in the social sciences outside the major, chosen with the consent of the advisor.
C. 27 semester 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 hours, 12 of which must at the upper-division level:
A. 12 semester hours of required courses:

SOC 1013 Introduction to the Study of Society
SOC 3003 Sociological Foundations
SOC 3013 Conceptualization and Measurement in Social Research
SOC 3343 Classical Sociological Theory
or
SOC 3353 Contemporary Sociological Theory
B. 9 semester hours of sociology electives.

To declare a minor in Sociology, to obtain advice, or to seek approval of substitutions for course requirements, student should consult the Undergraduate Advisor of Record in the Division of Social and Policy Sciences.

## COURSE DESCRIPTIONS SOCIOLOGY (SOC)

## 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 for both more developed and less developed countries. (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 and social movement, including mobs, revolutions, cults, and panics.

## 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 form and consequences of intergroup relations, social movements and related social changes, and formal models of Southwestern plural society.

## 3173 Economy and Society

(3-0) 3 hours credit. Prerequisite: SOC 1013.
The relationship of the economic system to the social system as a whole in selected societies. The varieties of capitalist and socialist economic organizations, and their social implications.

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 U.S.

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.

## 3233 Sociology of Adult Life

(3-0) 3 hours credit. Prerequisite: SOC 1013.
Examines how a person's life history develops out of individual, social, and historical influences. Also surveys research on age patterns in work, family, and community participation. May include the writing of a life history.

## 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.

## 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.

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. Prerequisite: Completion of the Core Curriculum requirement in mathematics.
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. (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 major types of research designs, 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, an 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 1013.
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 4143 and SOC 3183. Credit cannot be earned for more than one class of SOC 4143, SOC 3183, or SOC 3353.)

3403 Mexican-American Stratification
(3-0) 3 hours credit.
Offers the opportunity to study the variables affecting the social status of Mexican Americans and relations between this group and the dominant society. Issues studied 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 the Mexican-American family.
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 conscription 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 pre-industrial and industrial societies.

## 4203 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.

4433 Culture and Society
(3-0) 3 hours credit.
The goal of this course is to comprehend 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 such as art and culture in minority social movements, the relation between "high" and "low" culture, and the recent "culture wars" of the National Endowment for the Arts may be explored.

## 4913 Independent Study

3 hours credit. Prerequisites: 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 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 credit hours may be earned through Internship in Sociology.

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 courses may be repeated for credit when the topics vary, but not more than 6 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 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.

## COURSE DESCRIPTIONS <br> SOCIAL SCIENCE <br> (SSC)

3103 Major Theories of the Social Sciences
(3-0) 3 hours credit.
A survey of major theories and types of 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 which have produced the physical form and institutional arrangements of the contemporary city. Problems and opportunities currently facing American cities. (Formerly URB 3523. Credit cannot be earned for both SSC 3113 and URB 3523.)

## 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. (Formerly URB 3103. Credit cannot be earned for both SSC 3123 and URB 3103.)

## 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 anti-feminist 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 which 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 devoted to 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 an equivalent.
Provides students the opportunity to apply research and quantitative techniques as analytical tools in the social and policy sciences.

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, an 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 courses may be repeated for credit when the topics vary,
but not more than 6 hours, regardless of discipline, will apply to a bachelor's degree.

## 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.

21 semester hours are required for this minor:
A. INT 2403 Introduction to International Study
B. 12 semester hours, to be selected in the following manner:

1. 3 semester hours of history or geography courses, selected from the following:

GRG 2633 World Regional Geography
GRG 3613 Conservation of Resources
GRG 3633 Geography of Development
HIS 3283 Twentieth-Century People
HIS 3303 History of Mexico
HIS 3343 Modern Central America and the Caribbean
HIS 3353 Latin America since Independence
HIS 3373 Revolution in Latin America
HIS 3383 History of Andean Nations
HIS 3393 Women in Latin America
HIS 3523 European Cultural History
HIS 3643 Modern Spain
HIS 3753 Soviet Russia since 1917
HIS 3823 History of American Foreign Policy
2. 3 semester hours of economics, finance, or marketing, selected from the following:

| ECO | 3193 | The International Economy |
| :--- | :--- | :--- |
| ECO | 4304 | Economic Problems of Developing Countries |
| FIN | 4613 | Introduction to International Finance |
| MGT | 4073 | International Management |
| MKT | 4073 | International Marketing |

3. 3 semester hours of humanities, selected from the following:

AHC 3453 New World Hispanic Art and Architecture
AHC 4423 Contemporary Art of Latin America
CSH 1203 Introduction to Hispanic Cultures
CSH 1213 Topics of World Cultures
FRN 3433 French Civilization
FRN 3613 Contemporary French Culture and Society
GER 4213 German Studies: Culture
HUM 3093 World Religions
HUM 3623 Topics in National Cultures and Civilizations
PHI 3073 Oriental Philosophy

SPN 3613 Spanish Culture and Civilization
SPN 3623 Spanish-American Culture and Civilization
SPN 3653 Contemporary Spain
SPN 3663 Contemporary Spanish America
SPN 3673 Hispanic Cultural Systems
4. 3 semester hours of social sciences, selected from the following:

ANT 3363 Traditional Mesoamerican Cultures
ANT 4253 Cultural Dynamics
POL 2603 International Politics
POL 2633 Comparative Politics
POL 3393 Latin-American Politics
POL 3403 European Politics
POL 3423 Politics in the Soviet Union
POL 3443 Asian Politics
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
PSY 3533 Inter-American Relations
PSY 4343 Transitions to Democracy
C. 6 additional semester 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, to obtain advice, or to seek approval of substitutions for course requirements, student should consult the Undergraduate Advisor of Record in the Division of Social and Policy Sciences.

## COURSE DESCRIPTION <br> INTERNATIONAL STUDIES (INT)

2403 Introduction to International Study
(3-0) 3 hours credit.
Examination of international and multicultural issues through the perspectives of core disciplines. Study includes lectures, discussions, reading and films on culture, culture shock and cross-cultural communication; American and foreign values; language issues; and investigations of issues related to a particular nation and culture.

## MINOR IN PUBLIC ADMINISTRATION

This minor is designed to work in tandem with all the other disciplines in the Division of Social and Policy Sciences, as well as with many other majors. A minor in Public Administration, in combination with a student's major, might improve the student's marketability for jobs in either the private or public sectors.

18 semester hours are required for this minor, 6 of which must be at the upperdivision level:
A. 6 semester hours, to be selected from the following:

HIS 3813 American Political History
MGT 3013 Introduction to Organization Theory, Behavior, and Management
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
B. 12 additional semester hours, to be selected from the following:

ECO 2003 Introduction to Political Economy
POL 2513 Public Administration and Public Policy
POL 2023 Civil Liberties in American Law and Practice
POL 2623 Law and Society
STA 1993 Statistical Methods for the Life and Social Sciences
To declare a minor in Public Administration, to obtain advice, or to seek approval of substitutions for course requirements, student should consult the Undergraduate Advisor of Record in the Division of Social and Policy Sciences.

## RESERVE OFFICER TRAINING CORPS PROGRAMS

Air Force R.O.T.C.: UTSA students may enroll in courses that are required in order to become a commissioned officer in the U.S. Air Force. The Air Force Reserve Officer Training Corps (R.O.T.C.) is voluntary and open to all qualified students, male and female. All courses are held on the UTSA campus.

Trinity University students may enroll in Air Force R.O.T.C. at UTSA. These Trinity students will attend classes on the UTSA campus.

Nursing students at The University of Texas Health Science Center may enroll in Air Force R.O.T.C. at UTSA. Two- or three-year nursing scholarships are available to qualified applicants.

Army R.O.T.C.: 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 Officer Training Corps (R.O.T.C.) 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 only as free electives. There is a maximum number of hours of aerospace studies that may be applied to the free electives allowed in the degree requirements for each major. Credit for aerospace studies courses awarded by another accredited college or university is accepted by UTSA as free elective credit, within the same limitations as aerospace studies credit earned at The University.

The Four-Year Program: This program does not require a formal application for admission and consists of 16 credit hours of aerospace studies. Any student wishing to participate in the freshman and sophomore level courses of Air Force R.O.T.C. 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 Two-Year Program: This program consists of the Professional Officer Course (POC), the last two years of the Four-Year Program, and requires 12 credit hours. Acceptance into the Two-Year Program is based upon competitive standards, and students must be accepted by the Air Force prior to registration for classes. Since the processing for admission into the Two-Year Program must be completed well in advance of enrollment, students interested in the program are encouraged to start the application process in the Fall 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 entering the Two-Year Program must first complete a paid six-week field training program.

All students in the Air Force R.O.T.C. are issued books and uniforms for use in the R.O.T.C. 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 the cadets with opportunities to learn about the actual conduct of Air Force missions and operations through guest lectures and field trips.

Cadets may apply for Air Force R.O.T.C. 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 and the career field for which the cadet is qualified. Two-Year Program applicants may apply for two-year scholarships the summer prior to the entry into the POC.

## COURSE DESCRIPTIONS <br> AEROSPACE STUDIES (ASC)

1031 Air Force Officership I
(1-1) 1 hour credit.
A survey course which discusses topics relating to the Air Force and national defense. It focuses on Air Force organizations, structure, and mission; officership, military customs and courtesies, and professionalism; and Air Force communication skills.

## 1041 Air Force Officership II

(1-1) 1 hour credit.
A continuation of ASC 1031, the course will examine Air Force professions; defense policy and strategy; and the missions of other military services. Students will also practice Air Force communication skills.

2031 History of Air Power I
(1-1) 1 hour credit.
This course focuses on factors contributing to change in the nature of military conflict, the development of air power from its earliest beginnings through two world wars, the evolution of air power doctrine and the role of technology, a history of air power employment in support of national objectives, and an assessment of communicative skills.

## 2041 History of Air Power II

(1-1) 1 hour credit.
A continuation of ASC 2031, beginning with the role of air power from the 1960s to the present. Various events and trends in the history of air power are examined, especially where these provide significant examples of the impact of air power on strategic thought. Contemporary defense strategy, concepts, and doctrine are explored. Basic leadership principles are introduced. Includes practice in the use of effective Air Force communications.

## 3013 Air Force Management and Leadership I

(3-1) 3 hours credit.
A seminar course which studies management fundamentals and communicative skills required of an Air Force junior officer. Case studies are used to examine Air Force management situations as a means of demonstrating and exercising practical applications of the concepts being studied. Includes study and practice in the use of Air Force communicative skills.

3023 Air Force Management and Leadership II
(3-1) 3 hours credit.
A continuation of ASC 3013, this seminar explores the meaning of professional responsibilities, leadership, and leadership ethics as applicable to the junior officer. Case studies are used to examine Air Force
leadership situations as a means of demonstrating and exercising practical applications of the concepts being studied.

## 4013 Air Force Issues and National Security Policy I

(3-1) 3 hours credit.
A study of national security forces in contemporary society. Includes an examination of the evolution of national security, key players and processes in formulation of security policy, national security policy issues, and studies on various regions of the world. Students are provided the opportunity to learn and practice leadership and communication skills necessary as future junior officers in the U.S. Air Force.

## 4023 Air Force Issues and National Security Policy II

 (3-1) 3 hours credit.Continuation of ASC 4013, emphasizing leadership and communication. Included is an extensive analysis of officership, Air Force roles and missions, current Air Force issues, and a study of the military justice system.

## ARMY RESERVE OFFICER TRAINING CORPS PROGRAM

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 only as free electives. There is a maximum number of hours of military science that may be applied to the free electives allowed in the degree requirements for each major. Credit for military science courses awarded by another accredited college or university is accepted by UTSA as free elective credit, within the same limitations as military science credit earned at The University.

The Four-Year Program: This program consists of 18 semester 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 the same manner as for other UTSA courses. The Basic Course, consisting of 6 semester hours of coursework, is normally taken during the freshman and sophomore years. Enrollment in the Basic Course does not confer any military status or commitment upon the student. Students who successfully complete the Basic Course are eligible for entry into the Advanced Course.

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 R.O.T.C.

Students who desire enrollment in the Advanced Course but have not completed the Basic Course may attend a six-week paid summer camp.

The Two-Year Program: This program consists of the Advanced Course, the last two years of the Four-Year Program. It consists of 12 semester hours of coursework and is normally taken during the junior and senior years at The

University. Students must have two academic years remaining at either the undergraduate or graduate level (or a combination of both) and satisfy the Basic Course requirements through any of the options listed above in the discussion of the Four-Year Program.
Upon entering the Advanced Course, a student is required to sign a contract which obligates him or her to complete the R.O.T.C. program and serve a tour of duty as a commissioned officer in the United States Army or Army Reserve. Students enrolled in the Advanced Course receive a subsistence allowance and are eligible to receive additional pay as an "officer trainee" with a local Reserve or National Guard as a participant in the Simultaneous Membership Program.

Students in the Advanced Course attend a paid six-week summer camp between their junior and senior years.

The Army R.O.T.C. program offers competitive scholarships for up to three years to selected 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 individuals enrolled in R.O.T.C. classes will be required to participate in physical fitness training and to take the Army Physical Readiness Test each semester.

Students enrolled in Army R.O.T.C. courses are furnished, free of charge, complete uniforms, texts, and necessary equipment.

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

MSC 1011 Fundamentals of Leadership and Management I
MSC 1021 Fundamentals of Leadership and Management II
MSC 2012 Applied Leadership and Management I
MSC 2022 Applied Leadership and Management II
B. Advanced Course:

MSC 3013 Advanced Leadership and Management I
MSC 3023 Advanced Leadership and Management II
MSC 4013 Seminar in Leadership and Management of the Military Team
MSC 4023 Seminar in Leadership and Management

# COURSE DESCRIPTIONS <br> MILITARY SCIENCE <br> (MSC) 

1011 Fundamentals of Leadership and Management I (1-2) 1 hour credit.
Organization of the Army and R.O.T.C. Discussion of career opportunities for R.O.T.C. graduates and the military as a profession. Customs and traditions of the service. Development of leadership potential.

## 1021 Fundamentals of Leadership and Management II

 (1-2) 1 hour credit.Leadership case studies of problems facing junior leaders in today's Army in non-combat situations. Evaluation of weapons and warfare using the principles of warfare as a catalyst. Effects of technological and sociological change on the military. Continuation of customs and traditions of the service. Development of leadership potential.

2012 Applied Leadership and Management I
(2-2) 2 hours credit.
Instruction in land navigation using a map and compass, conduct of drill and ceremonies, and administration of basic first aid (including performance of cardiopulmonary resuscitation [CPR]).

## 2022 Applied Leadership and Management II

(2-2) 2 hours credit.
American military history. A study of the development of American military institutions, policies, experience, and traditions in peace and war from colonial times to the present. Emphasis will be on the evolution of warfare, military theory, and the military profession. Introduction to the operation of basic military teams, with emphasis on organization and equipment.

## 3013 Advanced Leadership and Management I

(3-2) 3 hours credit. Prerequisites: MSC 1011, 1021, 2012, and 2022, or consent of instructor.
Performance-oriented instruction in preparation for Advanced Camp. Analysis of psychological, physiological, and sociological factors which affect human behavior. Analysis of leadership and management processes. Techniques in planning, presenting, and evaluating performanceoriented instruction.

3023 Advanced Leadership and Management II
(3-2) 3 hours credit. Prerequisite: MSC 3013 or consent of instructor.
Performance-oriented instruction in preparation for Advanced Camp. Development of the leader's ability of expression, analysis of military problems, and preparation and delivery of logical solutions. Analysis of the leader's role in planning, directing, and coordinating the efforts of individuals and small units in the execution of offensive and defensive tactical missions.

4013 Seminar in Leadership and Management of the Military Team (3-2) 3 hours credit. Prerequisite: MSC 3023 or consent of instructor. Analysis of selected leadership and management problems. Responsibilities of the commander and staff in areas of personnel intelligence, operations, and logistics. Administration of military law. The interrelationships of the military team.

4023 Seminar in Leadership and Management (3-2) 3 hours credit. Prerequisite: MSC 4013 or consent of instructor. Analysis of selected leadership and management problems. Responsibilities of the commander in the management of personnel, account logistics, operations, maintenance, and unit readiness. Seminars in the role of the officer in the conduct of personal affairs.

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 the leader's 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.

## UNIVERSITY HONORS PROGRAM

The philosophy of the University Honors 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 specialized interdisciplinary seminars on a variety of topics and opportunities for advanced research within their major fields. The program also offers special Honors sections of Core courses.

To graduate with University Honors Program honors, students must complete an Honors Thesis and must take a minimum of 24 hours of Honors courses, including at least 3 hours of each of the following: HON 3203; HON 3213; HON 4993; and IDS 2203 (Honors) or IDS 2213 (Honors).

## COURSE DESCRIPTIONS <br> HONORS (HON)

## 3203 Honors Seminar on Diversity of Thought

(3-0) 3 hours credit. Prerequisite: Enrollment in the University Honors Program or consent of instructor.
Interdisciplinary seminar that explores broad topics concerning the diversity of thinking on various problems or issues. May be repeated for credit when topics vary.

## 3213 Honors Seminar on Diversity of Culture

(3-0) 3 hours credit. Prerequisite: Enrollment in the University Honors Program or consent of instructor.
Interdisciplinary seminar that explores broad topics relating to the diversity of cultures. May be repeated for credit when topics vary.
(3-0) 3 hours credit. Prerequisite: Enrollment in the University Honors Program or consent of instructor.
Supervised research in the student's major field. May be repeated with the supervisor's approval.

## CORE CURRICULUM COURSES

The following interdisciplinary courses are part of the Core Curriculum and are offered under the direct supervision of the Director of Core Curriculum.

## COURSE DESCRIPTIONS <br> CORE <br> (COR)

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.

3003 Topics in Intellectual Diversity
(3-0) 3 hours credit.
Interdisciplinary course focusing on a topic requiring that different intellectual perspectives be employed and compared. Topics will vary.

3013 Topics in Cultural Diversity
(3-0) 3 hours credit.
Interdisciplinary course focusing on a topic requiring cross-cultural comparison. Topics will vary.

## 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 bachelor's degree. A few students with outstanding records and a high degree of maturity are admitted to medical school after completing 90 semester hours and to dental schools after completing 60 semester 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 prior to late summer or fall application for admission.

Students are encouraged to consult with the Chairman, Health Professions Advisory Committee, Division of Life Sciences early in their college career for advisement and for information concerning professional school requirements. The committee chairman also should be consulted concerning the written evaluation which 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 degree in Nursing plan, elsewhere in this catalog) are representative of admission requirements for most other American nursing schools. A minimum of 60 semester hours is required, including six semester hours of college English, nine hours in behavioral sciences, twelve hours in history and government, three hours in statistics, and eighteen hours in natural sciences, which must include chemistry, anatomy, physiology, microbiology, and nutrition.

Additional information and advisement may be obtained from the Chairman, Health Professions Advisory Committee, 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. Non-business 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 would offer students the opportunity of gaining direct admission to many M.B.A. programs.

Undergraduates interested in a liberal arts background and who are considering graduate or professional study in business, law, or medicine may be interested in the non-certification track of the Bachelor of Arts degree in Interdisciplinary Studies (outlined elsewhere in this catalog). For more information, please contact the Division of Education.

## APPENDIX. <br> FACULTY

## FACULTY

## 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
James F. Gaertner, B.B.A., M.B.A., Sam Houston State University; Ph.D., Texas A\&M University
Susan L. Nordhauser, B.A., Cornell University; M.S., Purdue University; Ph.D., University of Texas at Austin

## ASSOCIATE PROFESSORS

Mark M. Alford, B.B.A., M.B.A., Ph.D., Texas A\&M University
E. Lou Curry, B.S., West Virginia University; J.D., St. Mary's University; LL.M., Emory University
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
James E. Groff, B.A., University of Iowa; M.B.A., Stetson University; Ph.D., University of Iowa
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
James U. Ross, B.A., J.D., University of Texas at Austin
Ted D. Skekel, B.S., The Florida State University; Ph.D., University of Oregon

## ASSISTANT PROFESSORS

Chak-Tong Chau, B.B.A., M.Acc., Stetson University; Ph.D., Florida State University
Glenn B. Dietrich, B.S., University of Missouri; M.B.A., University of Texas at San Antonio; Ph.D., University of Texas at Austin
Amy E. Dunbar, B.A., Macalester College; Ph.D., University of Texas at Austin
Cheryl Fulkerson, B.S., Colorado State University; M.B.A., Pittsburgh State University; Ph.D., Oklahoma State University
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[^0]:    *For a more detailed calendar of semester events, see the Schedule of Classes for each semester.

[^1]:    *For a more detailed calendar of semester events, see the Schedule of Classes for each semester.

[^2]:    *For a more detailed calendar of semester events, see the Schedule of Classes for each semester.

[^3]:    *For a more detailed calendar of semester events, see the Schedule of Classes for each semester.

[^4]:    Name
    Current Address
    Permanent Address
    Phone number
    Date and place of birth
    Major and concentration
    Classification
    Participation in officially recognized activities and sports
    Weight and height (if the student is on an athletic team)
    Dates of attendance

[^5]:    'COM 1043 is not required for Building/Development majors.

[^6]:    'Students seeking teacher certification should consult the Undergraduate Certification Programs in Education brochure for information. Undergraduates seeking elementary teacher certification must complete the Inderdisciplinary Studies degree.

[^7]:    ${ }^{1}$ Students seeking teacher certification should consult the Undergraduate Certification Program in Education brochure for information. Undergraduates seeking elementary teacher certification must complete the Interdisciplinary Studics degrec.

[^8]:    'See study abroad options under Course Descriptions - Foreign Languages.

[^9]:    ${ }^{1}$ Undergraduates seeking elementary teacher certification must complete the Interdisciplinary Studies degree.

[^10]:    ${ }^{\prime}$ Undergraduates seeking elementary teacher certification must complete the Interdisciplinary Studies degree

[^11]:    ${ }^{1}$ Undergraduates seeking elementary teacher certification must complete the Interdisciplinary Studies degree.

[^12]:    3123 Introduction to Synthesizers and Music 3 hours credit. Prerequisite: Consent of instructor. A conceptual and practical introduction to digital and analog synthesizers, sequencers, tape recorders, MIDI, samplers, and such sound-processing techniques as delay, reverb, and equalization. Includes a survey of the history and literature of electronic music.

[^13]:    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 centification must complete the Interdisciplinary Studies degree.

[^14]:    1904 Technical Physics I
    (4-0) 4 hours credit. Prerequisite: MAT 1214.
    The basic concepts and methods of physics. Mechanics, heat, and fluids. Concurrent enrollment in PHY 1911 and MAT 1223 recommended. [TCCN: PHYS 2425.]

[^15]:    Students seeking teacher certification should consult the Certification Program through the Office of Teacher Advising, Cerification, and Placement in the Division of Education for infonmation. Undergraduates seeking elementary teacher certification must complete the Interdisciplinary Studies degree.

[^16]:    IStudents 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.

[^17]:    ${ }^{1}$ Not required of IDS students specializing in bilingual education.
    ${ }^{2}$ Not required of IDS students specializing in early childhood or generic special education.

[^18]:    3743 Language, Literacy, and Culture (3-0) 3 hours credit.
    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.

[^19]:    3083 Ethnic Politics in the United States
    (3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in political studies.
    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.

[^20]:    3373 The Legislative Process
    (3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in political studies.
    The functions, structures, and politics of legislatures and their relationships to their constituencies and other branches of government.

[^21]:    3453 The Politics of Mexico
    (3-0) 3 hours credit. Prerequisite: Completion of the Core Curriculum requirement in political studies.
    Background to 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 govern-

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