## UNDERGRADUATE CATALOG 1976-78

No person shall, on the basis of race, color, national origin, religion or sex, be excluded from participation in, be denied the benefits of, or be subject to discrimination under, any program or activity sponsored or conducted by The University of Texas System or any of its component institutions.

Education is not just a luxury permitting some men an advantage over others. It has become a necessity without which a person is defenseless in this complex, industrial society. We have truly entered the century of the educated man.

Lyndon B. Johnson
En el perenne certamen que determina cuáles serán los escogidos en el número de los llamados, ya que no hay espacio para todos, prevalece la mayor adecuación o mayor fuerza: triunfa y se impone la superioridad; pero esto solo no da satisfacción a la justicia, pues aún falta contar aquellos que no son ni de los escogidos ni de los llamados: los que no pueden llegar a la arena del certamen, porque viven en tales condiciones que se ignoran a sí mismos o no les es lícito aplicarse a sacar el oro de su mina; y entre estos ;ay! ¿quién sabe si alguna vez no están los primeros y mejores?

José Enrique Rodó

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I. Calendar

## Fall Semester, 1976

| August 23-26 | Monday-Thursday. Registration, Orientation, <br> Advisement.* <br> Monday. Classes begin. |
| :--- | :--- |
| August 30 | Mon <br> September 3 |
|  | Friday. Last day to add a class without special permis- <br> sion. Last day for late registration. Last day to drop a <br> course or withdraw without a record of the enrollment. <br> Deadline for Fall, 1976, graduates to apply for graduation. |
| September 6 | Monday. Holiday. <br> Monday. Last day to add a class. |
| September 13 | Friday. Last day for students to withdraw and receive a <br> partial refund of tuition and fees. |
| September 24 | Friday. Last day to drop a course with an automatic <br> grade of "W." |
| October 8 | Thursday-Saturday. Thanksgiving Holidays. |
| November 25-27 | Monday. Last day to drop a course or withdraw. <br> December 6 |
| December 13-18 | Monday.Saturday. Final examinations. |
| December 18 Saturday. Semester closes. |  |

## Spring Semester, 1977

| January 10-13 | Monday.Thursday. Registration, Orientation, <br> Advisement.* <br> Monday. Classes begin. |
| :--- | :--- |
| January 17 | Friday. Last day to add a class without special per- <br> mission. Last day for late registration. Last day to drop <br> a course or withdraw without a record of enrollment. <br> Last day for Spring, 1977, graduates to apply for <br> graduation. |
| January 21 | Friday. Last day to add a class. |
| January 28 | Friday. Last day for students to withdraw and receive <br> a partial refund of tuition and fees. |
| February 11 | Friday. Last day to drop a course with an automatic <br> grade of "W." |
| February 25 | Monday-Saturday. Spring vacation. |
| April 4-9 | Monday. Last day to drop a course or withdraw. |
| May 2 Manday-Saturday. Final examinations. |  |
| May 9-14 | Mondarday. Semester closes. |
| May 14 Saturday |  |

[^0]May 15 Sunday. Commencement.

## Summer Session, 1977

\(\left.$$
\begin{array}{ll}\text { May 30-31 } & \begin{array}{l}\text { Monday-Tuesday. Registration, Orientation, } \\
\text { Advisement.* }\end{array} \\
\text { June 1 } & \begin{array}{l}\text { Wednesday. Classes begin. } \\
\text { Friday. End of summer session. }\end{array}
$$ <br>

August 19 \& Fall Semester, 1977\end{array}\right]\)| Monday-Thursday. Registration, Orientation, |  |
| :--- | :--- |
| August 22-25 | Mdvisement.* |
| August 29 | Friday. Last day to add a class without special per- <br> mission. Last day for late registration. Last day to drop |
| September 2 | a course or withdraw without a record of the enrollment. |
| Deadline for Fall, 1977, graduates to apply for graduation. |  |

## Spring Semester, 1978

| January 9-12 | Monday-Thursday. Registration, Orientation, <br> Advisement.* |
| :--- | :--- |
| January 16 | Monday. Classes begin. |
| January 20 | Friday. Last day to add a class without special per- <br> mission. Last day for late registration. Last day to drop |
|  | a course or withdraw without a record of the enrollment. <br> Last day for Spring, 1978, graduates to apply for <br> graduation. |

[^1]\(\left.$$
\begin{array}{ll}\text { January } 27 & \begin{array}{l}\text { Friday. Last day to add a class. } \\
\text { Friday. Last day for students to withdraw and receive } \\
\text { a partial refund of tuition and fees. }\end{array} \\
\text { February 24 } & \begin{array}{l}\text { Friday. Last day to drop a course with an automatic } \\
\text { grade of "W." }\end{array} \\
\text { April 3-8 } & \begin{array}{l}\text { Monday-Saturday. Spring vacation. } \\
\text { May 1 }\end{array} \\
\begin{array}{ll}\text { Manday. Last day to drop a course or withdraw. }\end{array} \\
\text { May 13 } & \begin{array}{l}\text { Monday-Saturday. Final examinations. }\end{array} \\
\text { May 14 } & \begin{array}{l}\text { Saturday. Semester closes. }\end{array}
$$ <br>

Sunday. Commencement.\end{array}\right\}\)| May 29-30 | Monday-Tuesday. Registration, Orientation, <br> Advisement.* |
| :--- | :--- |
| May 31 | Wednesday. Classes begin. |
| August 18 | Friday. End of summer session. |

[^2]
## II. General Information

## THE UNIVERSITY OF TEXAS SYSTEM BOARD OF REGENTS

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TERMS EXPIRE JANUARY, 1981
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Theresa M. Kelley, Assistant Professor, B.A., University of Washington; M.A., Ph.D., Northwestern University

Charles W. Kneupper, Assistant Professor, B.A., Texas Lutheran College; M.A., Ph.D., Bowling Green State University

Bonny K. Lyons, Assistant Professor, B.A., M.A., Ph.D., Tulane University
Margaret McBride, Assistant Professor, B.A., University of Kansas; M.A., Ph.D., University of Pennsylvania

Arthur R. Miller, Assistant Professor, B.A., West Liberty State College; M.A., Ph.D., Michigan State University

Peter F. Morrison, Assistant Professor, B.A., Pomona College; M.A., University of Sussex; Ph.D., University of California

David R. Saliba, Assistant Professor, B.A., University of Texas at Austin; Ph.D., Brown University

Marjorie R. Smelstor, S.C., Assistant Professor, B.S., College of Mount Saint Joseph-on-the-Ohio; M.A., Ph.D., University of Wisconsin

Carol Billman Weiher, Assistant Professor, B.A., College of William and Mary; Ph.D., Indiana University

Arnold N. Sparks, Instructor, B.A., M.A., University of Texas at El Paso
Michael F. Kelly, Lecturer, B.A., Holy Cross Seminary; M.A., Marquette University; Ph.D., University of Tennessee; M.S.L.S., University of Kentucky

## Division of Foreign Languages

Ricardo F. Benavides, Professor, B.A., M.A., Universidad de Chile; Ph.D., Universidad Central de Madrid

Beverly J. Gibbs, Professor, B.A., M.A., University of Michigan; Ph.D., University of Wisconsin at Madison

Jack Himelblau, Professor, A.B., M.A., University of Chicago; Ph.D., University of Michigan

Joseph Michel, Professor, B.A., De LaSalle College; M.A., Universidad Nacional Autonóma de México; Ph.D., University of New Mexico
Tomás Rivera, Professor, B.S., M.Ed., Southwest Texas State University; M.A., Ph.D., University of Oklahoma
R. Joe Campbell, Associate Professor, B.S. Eastern Illinois University; M.S., Ph.D., University of Illinois

Theodore Fiedler, Associate Professor, B.A., M.A., Ph.D., Washington University

Frank Pino, Jr., Associate Professor, B.A., M.A., Arizona State University; Ph.D., Northwestern University

Theodore L. Kassier, Associate Professor, A.B., Columbia University; A.M., Ph.D., Princeton University

Seth L. Wolitz, Associate Professor, B.A., University of Chicago; Ph.D., Yale University

Rilda L. Baker, Assistant Professor, B.A., University of Nebraska; M.A., Ph.D., University of Texas at Austin
G. Lee Fullerton, Assistant Professor, A.B., M.A., Stanford University; Ph.D., University of Michigan

Shuhsi Marie-Louise Kao, Assistant Professor, B.A., Spalding College; M.A., University of Illinois; M. Phil., Yale University

Steven G. Kellman, Assistant Professor, B.A., State University of New York; M.A., Ph.D., University of California

Giorgio Perissinotto, Assistant Professor, B.A., Syracuse University; M.A., Ph.D., Columbia University

Susan H. Price, Assistant Professor, B.A., Smith College; M. Phil., Ph.D., Yale University

Marc D. Silberman, Assistant Professor, B.A., University of Minnesota; A.M., Ph.D., Indiana University

Division of Social Sciences
Richard E. W. Adams, Professor, B.A., University of New Mexico; M.A., Ph.D., Harvard University

Thomas C. Greaves, Professor, B.A., University of Washington; Ph.D., Cornell University

Félix D. Almaraz, Jr., Associate Professor, B.A., M.A., St. Mary's University; Ph.D, University of New Mexico

Raymond R. Baird, Associate Professor, A.B., Eastern New Mexico University; M.S., Ph.D., University of Washington

Thomas A. Baylis, Associate Professor, B.A., Duke University; M.A., Ph.D., University of California at Berkeley

Thomas R. Hester, Associate Professor, B.A., University of Texas at Austin; Ph.D., University of California at Berkeley

David J. Schneider, Associate Professor, B.A., Wabash College; Ph.D., Stanford University

Muriel A. Atkin, Assistant Professor, B.A., Sarah Lawrence College; M.Phil, Ph.D., Yale University

Sharon N. Barnartt, Assistant Professor, B.A., Bradeis University; M.A., University of Pittsburgh; Ph.D., University of Chicago

John A. Booth, Assistant Professor, B.A., Rice University; M.A., Ph.D., University of Texas at Austin

Steven R. Boyd, Assistant Professor, B.A., Claremont Men's College; M.A., Ph.D., University of Wisconsin

Sandra H. Carey, Assistant Professor, B.A., M.A., Trinity University; Ph.D., University of Texas at Austin

James R. Dykes, Jr., Assistant Professor, B.A., Ph.D., University of Texas at Austin

Richard A. Gambitta, Assistant Professor, B.A., M.A., Ph.D., Syracuse University

Joel D. Gunn, Assistant Professor, B.A., M.A., University of Kansas; Ph.D., University of Pittsburgh

David R. Johnson, Assistant Professor, B.A., University of Illinois; M.A., Ph.D., University of Chicago

Joanne S. Kaufmann, Assistant Professor, A.B., University of California; A.M., Ph.D., Harvard University

Kenneth Levi, Assistant Professor, B.A., A.M., Ph.D., University of Michigan

Daniel C. Rigney, Assistant Professor, B.A., M.A., Ph.D., University of Texas at Austin

Michael P. Ryan, Assistant Professor, B.A., Pomona College; Ph.D., Stanford University

Woodruff D. Smith, Assistant Professor, B.A., Harvard University; M.A., Ph.D., University of Chicago
R. Michael Stevens, Assistant Professor, B.A., University of the South; M.A., Ph.D., Temple University

María-Luisa Urdaneta, Assistant Professor, B.A., M.A., University of Texas at Austin

James L. Wadington, Assistant Professor, B.S., A.M., Ph.D., University of Illinois

Judith L. Whatley, Assistant Professor, B.A., University of Texas at Austin; Ph.D., Duke University
Gilberto M. Hinojosa, Instructor, B.A., Our Lady of the Snows; M.A., Saint Mary's University

## COLLEGE OF MULTIDISCIPLINARY STUDIES

Division of Bicultural-Bilingual Studies
Rodolfo Jacobson, Professor, M.A., Universidad de Panamá; M.A., Ph.D., University of Michigan
Albar A. Peña, Professor, B.S., University of Texas at Austin; M.A., Texas A \& I University; Ph.D., University of Texas at Austin

Ernest M. Bernal, Jr., Associate Professor, B.A., St. Mary's University; M.A., Our Lady of the Lake College; Ph.D., University of Texas at Austin

Curtis W. Hayes, Associate Professor, B.A., M.A., California State University at Long Beach; Ph.D., University of Texas at Austin

Mauricio E. Charpenel, Assistant Professor, B.A., Central Missouri State; M.A., Universidad Nacional Autónoma de México; M.L.S., Ph.D., University of Texas at Austin

Carolyn L. Kessler, Assistant Professor, B.A., St. Mary-of-the-Woods College; M. S., Ph.D., Georgetown University

José E. Limón, Instructor, A.A., Del Mar College; B.A., M.A., University of Texas at Austin

## Division of Education

Robert T. Alciatore, Professor, B.A., Ph.L., Spring Hill College; S.T.L., St. Louis University; Ph.D., University of Minnesota

Thomas J. Cleaver, Professor, B.S., M.Ed., Prairie View A \& M College; Ph.D., University of Texas at Austin

Dewey D. Davis, Professor, B.S., Edinboro State College; M.Ed., Ph.D., University of Texas at Austin

Milo E. Kearney, Professor, B.S., Kansas City Teachers College; M.A., University of Missouri at Kansas City; Ed.D., Columbia University Teachers College; LL.D., William Woods College
Wayne W. Laughery, Professor, B.A., M.A., San Diego State College; Ed.D., Columbia University Teachers College
Elwood B. Traylor, Professor, B.A., Greenville College; M.A., Ph.D., Washington University at St. Louis
Paul H. Westmeyer, Professor, B.S., M.A., Ball State University; Ed.D., University of Illinois

Ronnie N. Alexander, Associate Professor, B.S., M.A., Central State University; Ed.D., University of Kansas
Stephen W. Brown, Associate Professor, B.A., Northeast Louisiana University; M.Ed., Louisiana State University; Ed.D., Mississippi State University

Cecile G. Burns, Associate Professor, B.M., University of Jacksonville; Ed.M., Ed.D., Temple University

John W. Hollomon, Associate Professor, B.A., Dillard University; M.A., West Virginia University; M.A., Universidad Interamericana, Saltillo; Ph.D, University of New Mexico

Marian L. Martinello, Associate Professor, B.S., M.S., Queens College; Ed.D., Columbia University Teachers College.

Emma D. Morris, Associate Professor, B.S., Huston-Tillotson College; M.S., Prairie View A\&M University; Ph.D., Texas Woman's University

James W. Wagener, Associate Professor, B.A., Southern Methodist University; M.A., Ph.D., University of Texas at Austin
C. Taylor Whittier, Associate Professor, A.B., A.M., Ph.D., University of Chicago

Walter B. Biddle, Assistant Professor, B.S., M.S., Bucknell University; Ph.D., University of Illinois

Paula R. Boothby, Assistant Professor, B.A., Kalamazoo College; M.A., Western Michigan University; Ed.D., University of North Dakota

Pamela Y. Dalton, Assistant Professor, B.A., Marian College; M.A.E., Ed.D., Ball State University
Richard A. Diem, Assistant Professor, B.S., Bradley University; M.S., Southern Illinois University; M.A., Colorado State University; Ph.D., Northwestern University

Pamela J. Eckard, Assistant Professor, M.A., Ed.D., Ball State University
Myrna L. Estep, Assistant Professor, B.A., M.S., Ph.D., Indiana University

Peter G. Fairweather, Assistant Professor, B.A., M.A.T., Ph.D., Northwestern University

Larrie E. Gale, Assistant Professor, B.A., M.A., San Diego State College; Ph.D., University of Utah
Barbara Kay Gonzalez, Assistant Professor, B.A., M.A., Ph.D., University of Texas at Austin

Peggy J. Gray, Assistant Professor, B.S., M.S., Ed.D., Indiana University
Ronald D. Hedrick, A.B., M.Ed., University of Missouri; Ed.D., University of South Dakota

Herbert K. Heger, Assistant Professor, B.S., M.Ed., Miami University; Ph.D., Ohio State University

Margaret O. Knapp, Assistant Professor, B.S., Pennsylvania State University; Ed.M., Ed.D., Rutgers University

Ronald J. Lacoste, Assistant Professor, A.A., St. Joseph Seminary; B.A., M.Ed., University of New Orleans; Ph.D., University of Texas at Austin

Robert E. Lindberg, Assistant Professor, B.A., University of Minnesota; M.Ed., University of Missouri; Ph.D., Arizona State University

Eileen T. Lundy, Assistant Professor, B.S., College of St. Teresa; Ph.D., University of Texas at Austin

Jane B. Markowitz, Assistant Professor, B.A., Brooklyn College; M.S., Syracuse University; Ph.D., Indiana University

Robert E. Roemer, Assistant Professor, B.A., M.A., St. Louis University; Ph.D., Syracuse University
James E. Schnitz, Assistant Professor, B.A., M.A.T., Ph.D., Northwestern University
Berry N. Sutherland, Associate Professor, B.S., University of Texas at Austin; M.S., Ed.D., University of Houston
Kenneth W. Wunderlich, Assistant Professor, B.A., Ph.D., University of Texas at Austin
Gloria Zamora, Assistant Professor, B.S., Incarnate Word College; M.Ed., Our Lady of the Lake College; Ph.D., University of Texas at Austin

Division of Environmental Studies
Richard S. Howe, Professor, B.S., University of Kentucky; M.S., Ph.D., University of Wisconsin at Madison
Chia Shun Shih, Professor, B.S., Taiwan, C.K. University; M.S., Ph.D., University of Texas at Austin

John W. Adams, Associate Professor, B.S., M.S., Utah State University; Ph.D., Washington State University
J. Leland Hepworth, Associate Professor, B.S. Utah State University; M.S., University of Idaho; Ph.D, Oklahoma State University

Charles A. Sorber, Associate Professor, B.S., M.S., Pennsylvania State University; Ph.D., University of Texas at Austin

Henry G. Cisneros, Assistant Professor, B.A., M.U.R.P., Texas A \& M University; M.P.A., Harvard University; D.P.A., George Washington University

Daniel O. Hogenauer, Assistant Professor, B.S., Haverford College; Ph.D., Johns Hopkins University

Richard R. Tangum, Assistant Professor, B.Arch., Texas Tech University; M.Arch., Virginia Polytechnic Institute; D.E.D., Texas A \& M University

## COLLEGE OF SCIENCES AND MATHEMATICS

Division of Allied Health and Life Sciences
Wayne E. Magee, Professor, B.A., Kalamazoo College, M.S., Ph.D., University of Wisconsin at Madison

Bernard P. Sagik, Professor, B.S., College of City of New York; M.S., Ph.D., University of Illinois

June E. Ayling, Associate Professor, B.S., Ph.D., University of California
Theodore D. McKinney, Associate Professor, B.S., University of Arizona; M.S., Colorado State University; Ph.D., Virginia Polytechnic Institute

Helen V. Oujesky, Associate Professor, B.A., B.S., Texas Woman's University; M.A., Texas Christian University; Ph.D., Texas Woman's University

Paul H. Rodriguez, Associate Professor, B.S., Creighton University; M.S., University of New Mexico; Ph.D., University of Rhode Island

Helen J. Cronenberger, Assistant Professor, B.A., B.S., University of Texas at Austin; Ph.D., University of Houston; MT (ASCP) Methodist Hospital, Houston, Texas
M. Neal Guentzel, Assistant Professor, B.A., M.A., Ph.D., University of Texas at Austin

Arnold H. Hassen, Assistant Professor, B.S., Brooklyn College; Ph.D., Indiana University

Martin A. Kramen, Assistant Professor, B.S., M.S., University of Illinois; Ph.D., University of Kansas
Marilyn A. Luduena, Assistant Professor, B.A., Western Reserve University; Ph.D., Stanford University

Jerry L. Phillips, Assistant Professor, B.A., University of Colorado; Ph.D., Colorado State University

Samuel A. Ramírez, Assistant Professor, B.A., University of Texas at El Paso; M.S., Texas Tech University; Ph.D., Indiana University

Division of Earth and Physical Sciences
Charles Howard, Professor, B.S., Ph.D., University of Wisconsin at Madison
B. S. Thyagarajan, Professor, B.S., Loyola College, India; M.S., Ph.D., Presidency College, India

Richard V. McGehee, Associate Professor, B.S., University of Texas at Austin; M.S., Yale University; Ph.D., University of Texas at Austin

Miroslav Synek, Associate Professor, B.S., M.S., Charles' University, Prague; Ph.D., University of Chicago

Petr Hochmann, Assistant Professor, M.S., Charles' University, Prague; Ph.D., Czechoslovak Academy of Science, Prague

Robert D. Renthal, Assistant Professor, B.A. Princeton University; Ph.D., Columbia University

Herbert B. Silber, Assistant Professor, B.S., M.S., Lehigh University; Ph.D., University of California

Division of Mathematics, Computer Science, and Systems Design
Manuel P. Berriozabal, Professor, B.S., Rockhurst College; M.S., Notre Dame University; Ph.D., University of California at Los Angeles

Joseph E. Valentine, Professor, B.S., Southwest Missouri State; M.S., University of Illinois; Ph.D., University of Missouri

Stanely G. Wayment, Professor, B.S., Brigham Young University; M.S., University of Utah; M.S., Stanford University; Ph.D., University of Utah

William B. Gearhart, Associate Professor, B.S., M.S., Ph.D., Cornell University

Lucio Tavernini Associate Professor, B.S., Heald Engineering College; M.S., University of Colorado; M.S., Ph.D., University of Wisconsin at Madison

Robert G. Ducharme, Assistant Professor, A.S., Holyoke Community College; M.S., Lowell Technological Institute; Ph.D., Florida State University

Clinton J. Kolaski, Assistant Professor, B.S., M.S., Ph.D., University of Wisconsin at Madison

George T. Ligler, Assistant Professor, B.S., Furman University; M.S., Ph.D., Oxford University

Kay A. Robbins, Assistant Professor, S.B., Ph.D., Massachusetts Institute of Technology

Steven Robbins, Assistant Professor, S.B., S.M., Ph.D., Massachusetts Institute of Technology

David G. Tabor, Assistant Professor, B.S., University of Texas at Arlington; M.S., Ph.D., New Mexico State University

Ram C. Tripathi, Assistant Professor, B.A., M.A., Banaran Hindu University, India; M.S., Ph.D., University of Wisconsin at Madison

Thomas H. Woteki, Assistant Professor, B.S., M.S., Ph.D., Virginia Polytechnic Institute

Joseph F. Dreussi, Instructor, B.S., M.S., University of Houston

## History

On June 5, 1969, the legislative act creating The University of Texas at San Antonio as a component institution of The University of Texas System was signed into law by the Governor. By this legislation directing that The University of Texas at San Antonio offer "courses leading to such customary degrees as are offered at leading American universities," the Legislature of the State of Texas established a new public institution of higher learning that would serve both undergraduate (lower and upper division) and graduate students. The legislation further stipulated that The University be "one of the first class."

In May, 1970, the Board of Regents of The University of Texas System accepted a gift of approximately 600 acres of wooded land located sixteen miles northwest of the center of San Antonio to serve as the permanent campus for The University of Texas at San Antonio. Shortly thereafter administrative and planning offices were established in the former Maison Blanche building on the grounds of HemisFair Plaza.

By the end of 1970, a master conceptual plan for the permanent campus was approved by the Board of Regents, and by June, 1971, final plans and specifications for the first seven permanent buildings of the campus were completed. After completion of the site improvement work, construction contracts were awarded in May, 1972, calling for a completion date of May, 1974, subsequently revised because of construction delays.

In January, 1972, temporary classrooms and offices were acquired in northwest San Antonio in the Koger Executive Center at the intersection of Loop 410 and Babcock Road. Graduate students enrolled for the first time at the Koger site in June, 1973. These facilities were occupied by The University until buildings on the new campus became available. Upper-division junior and senior students were accepted on the permanent campus in September, 1975; and lower-division students were registered in June, 1976.
In the Spring of 1972 the Board of Regents of The University of Texas System and the Coordinating Board, Texas College and University System, gave approval to UT San Antonio's academic organization of five Colleges with seventeen Divisions and to its proposed fifteen graduate and twenty-seven undergraduate
degree programs, now increased at the undergraduate level to thirty-one.
Subsequently the College of Multidisciplinary Studies and the College of Sciences and Mathematics were reorganized, so that the five Colleges of The University currently are composed of 15 Divisions. UT San Antonio also has a Division of Continuing Education.

## Purpose and Philosophy

The major purpose of The University of Texas at San Antonio is to respond, in a climate of intellectual freedom and with academic programs of the highest quality, to the educational needs of the multicultural community of metropolitan San Antonio and the South Texas region, the State of Texas, the nation, and the international community. The University is committed to excellence in teaching and scholarship and to flexibility in academic programs and instructional approaches, as it seeks to guide individual students toward achievement of their maximum potential.

Through programs of a multidisciplinary character, UT San Antonio strives to eliminate the isolation of disciplines and to reflect the integrated nature of societal issues and problems. The University is committed to cooperation with all institutions of higher education in San Antonio and the surrounding region and is a member of the Higher Education Council of San Antonio. UT San Antonio also cooperates with the San Antonio community to improve accessibility to library resources; to provide internships with local professions and businesses; to offer continuing education institutes, seminars, and special activities; and to utilize local, non-university personnel with special talents and abilities to enrich classroom instruction. To serve the metropolitan area of Bexar County, The University offers courses and programs on off-campus locations in the urban area where a need is demonstrated, provided their academic quality can be maintained in the off-campus location.

The mission of The University of Texas at San Antonio is to provide intellectual, cultural, and economic opportunities to its multiple constituencies.

## Organization

The University of Texas at San Antonio 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 Deputy Chancellor of The University of Texas System. The administrative authority of each component institution, such as The University of Texas at San Antonio, is in turn delegated to the President of that component.

The President at UT San Antonio is assisted by a staff including a Vice President for Academic Affairs, a Vice President for Administration, and a Vice President for Business Affairs. The Vice President for Academic Affairs provides the President with advice and counsel on academic matters and acts as liaison between the President's Office and the several Deans as well as with faculty committees concerned with academic affairs. With approval of the Board of Regents of a non-traditional administrative structure for graduate education at UT San Antonio, the administrative functions that ordinarily are the responsibility of a Graduate Dean are carried out by the Vice President for Academic Affairs. As the administrative officer responsible for graduate education, this officer chairs the Council on Graduate Education. The Vice President for Administration is responsible for assisting the President in handling internal and external administrative matters and in discharging special assignments as requested by the President. 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. This officer is responsible for budget preparation and analysis.

Operational administration of the graduate and undergraduate programs of The University is the responsibility of the Deans of the five Colleges. The Deans report directly to the President. They provide leadership in program, faculty, and staff development.

Instructional programs within the Colleges are organized by Divisions, headed by Division Directors, who have responsibility under the Dean for the operation of their Divisions. Division Directors also are expected to provide leadership in faculty and staff development and in academic program development.
Continuing Education activities of The University are located in the Division of Continuing Education. The Division is administered by a Dean who reports directly to the President and who is responsible for developing and operating all continuing education activities. The Division develops, promotes, coordinates, evaluates, and provides financial and logistical support for conferences, institutes, short courses, workshops, seminars, and special training programs. The Division has no permanently assigned faculty. Instructors for the various activities are selected from one or more of the five Colleges within The University of Texas at San Antonio, or from institutions or organizations outside The University.

## Accreditation

The University of Texas at San Antonio was granted full accreditation at the graduate level by the Southern Association of Colleges and Schools in December 1974. Because accreditation applies retroactively within the year awarded, all UT San Antonio degrees have been awarded by an accredited institution. The University is to be evaluated for full accreditation at the undergraduate level in October 1976 with accreditation expected before the end of the year.

## The John Peace Library

The John Peace Library of The University of Texas at San Antonio, named in 1974 in honor of the late former Chairman of The University of Texas System Board of Regents, has undergone rapid development and expansion since 1972, when work began on the development of collections. As of Fall 1975 the available collections of the library numbered 162,000 processed volumes; 44,700 volumes in microform; 6,000 federal, state and local documents; and 293,000 pieces of microforms. The library subscribes to approximately 2,000 periodicals and receives as a designated depository a wide variety of federal, state, and local
documents. In addition, the library has extensive holdings in microform of government documents, research reports, and newspapers. All materials have been selected to support the teaching and research needs of UT San Antonio.

The UT San Antonio special collections and rare books focus on Western Americana and on Texana. A truly distinguished collection of books and documents for research in the period of the Texas Republic has been made available through the generosity of the late John Peace. The Ewing Halsell Foundation provided funds for purchase of the Morris Cook J. Frank Dobie Collection. The library has also acquired a large collection of Western Americana from R. W. Warden of Montana. In addition, the library holds the architecture collection of Ralph H. Cameron and the Bible collection of Harry and Alma Dietert. The Piper Foundation assisted The University in the purchase of The San Antonio Collection, an extensive collection of materials on the history of San Antonio, from Ray Walton.

UT San Antonio is a participant in the Regional Historical Depository Program sponsored by the Texas State Library. This archive preserves and makes available to researchers a wide variety of public and private documents from a 22 -county region surrounding San Antonio. The archive is housed at the Institute of Texan Cultures.

The library building is designed to offer full services and convenience to students and faculty. The majority of books and periodicals are on open shelves for browsing and ease of access. In addition to the traditional library facilities, the John Peace Library also has full audio-visual capability and music listening facilities. Carrels, group study rooms, lounges, and faculty studies are conveniently located throughout the building to provide ideal study conditions. A required lower-division course orients students in the use of libraries in general and the John Peace Library in particular. A staff of highly qualified subjectspecialist librarians is available for consultation and assistance. ${ }^{1}$

## The Computer Center

The Computer Center provides modern computational facilities

[^3]for research and academic programs in addition to support for administrative data processing. A small computer system (PDP$11 / 45$ ) is available for student and faculty use. This computer may be expanded in capability through communication with large-scale computers, such as those at The University of Texas at Austin.

## The Lutcher Center

The Lutcher Center is a conference facility of The University of Texas System. Responsibility for administration and supervision of the Lutcher Center is assigned to the President of The University of Texas at San Antonio.

The Lutcher Center supports the administrative and developmental programs of The University of Texas System and its component institutions. It also provides space, facilities, and services for educational and public service programs of component units of The University of Texas System. The Center may also be used by other public and private educational institutions and by groups engaged in public service.

## The Institute of Texan Cultures

The Institute, located on HemisFair Plaza in downtown San Antonio, is a statewide educational research and dissemination center focusing on Texas history and culture. This center is concerned principally with collecting, organizing, and interpreting information on Texas subjects and with producing films, filmstrips, slides, tapes, publications, and exhibits on these subjects for statewide use on television, in classrooms, in museums, and at public gatherings for the benefit of the people of Texas.

Offices and classrooms of the Division of Continuing Education are located in the Institute.

## The Center for Studies in Business, Economics, and Human Resources

The Center for Studies in Business, Economics, and Human Re-
sources is the research center of the College of Business. The major objective of the Center is to provide students and faculty of The University with an adequate environment for problem solving and community-related research. While the Center is an integral part of the College of Business, it interacts with the. faculty of the other Colleges to provide an interdisciplinary approach to research and business education.

The focus of activity at the Center is on application of theories and research techniques to produce useful information for public and private decision making. Specialized data files are maintained on a continuing basis, while a research library and information systems guide interested users to sources of information. The knowledge and experience of The University's faculty are utilized to solve specific problems in the broad categories of management, finance, administration, planning, economic feasibility, production, economic impact, anti-trust laws and procedures, international trade, environmental protection, and manpower utilization. Graduate students have the opportunity of applying research methods through research assistantships. Discourse between academicians, specialists, community leaders, and students is encouraged through conferences and seminars which bring well-known scholars and professionals to San Antonio.

## Center for Archaeological Research

The Center for Archaeological Research, located in the Division of Social Sciences, was established in September, 1974. Among its objectives are preparation of students in archaeology, promotion of archaeological research in the South and South Central Texas region, carrying out necessary archaeological assessments for federal and state agencies as required by legislation and executive orders, and providing aid to local agencies and citizens who need the services of trained archaeologists. The Center's staff includes a number of graduate students. They, along with other Center personnel, carry out archaeological surveys in Bexar, Starr, Kendall, Comal, Gonzales, Karnes, Jim Wells and other South Texas counties. Other Center projects include a broad study of the archaeological and historical resources of the San Antonio-Guadalupe River Basins and support of regional archaeological surveys and excavations.

## Center for Applied Research and Technology

The Center for Applied Research and Technology (CART) is the research center of the College of Sciences and Mathematics. The major goals of CART are to provide for expanded research opportunities in the applied sciences for faculty and graduate students, to provide an educational opportunity whereby individual skills can be developed to fill employers' needs for applied scientists, and to provide research-related services for the community at large. Although CART is a part of the College of Sciences and Mathematics, it interacts with the faculty of other Colleges and with the local research community through the Southwest Research Consortium.

Emphasis is on interdisciplinary research in the earth, life, and physical sciences. Efforts have been concentrated in chemical, environmental, energy, and health-related studies. CART serves as a focal point for applied science research activities at The University by providing guidance and programs for contract and grant management and by furnishing analytical services and research support for faculty and students. Exceptional students have an opportunity to gain valuable work experience through CART's technical services and research programs.

## Center for Learning and Development Research in Education

The Center for Learning and Development Research in Education, located in the College of Multidisciplinary Studies, is designed to stimulate basic and applied research in learning and development, particularly as it refers to the educational process. Faculty and students from this College, as well as faculty and students from other Colleges of The University, are encouraged to study problems appropriate to this area. The objectives of the Center include: promotion of research in learning and development in education; development of cooperative faculty-student research; cooperation with school districts, social service agencies, and community agencies on problems of mutual interest; and solicitation of funds for appropriate activities.

The Center's role consists of identifying and coordinating faculty, student, and community interests, needs, and resources.

Faculty members from the College and The University, with interest and training in learning and development in education, participate in projects related to the Center's activity.

## The University Bookstore

The University Bookstore, owned and operated by UT San Antonio, is located on the first level of the Science-Education Building adjacent to the Student Lounge. The Bookstore provides a complete stock of all required and recommended books for UT San Antonio courses. In addition, the University Bookstore carries a complete line of general school supplies, writing instruments, art materials, soft goods, decals, greeting cards, and a variety of gift items.

## The University Cafeteria

The University Cafeteria, located in the heart of the campus on the first level of the John Peace Library, provides meals and fountain service to the university community. Owned and operated by UT San Antonio, the Cafeteria serves breakfast, hot lunches, and features short orders, soft drinks, and fountain items. Catering for both large and small groups is available. Further information may be obtained from the Cafeteria.

## III. Tuition, Fees, Charges, Penalties and Deposits

## Introduction

Students are entitled to enter class or laboratory only after their tuition, fees, and deposits have been paid. ${ }^{1}$ Payment may be made by personal check for the exact amount due, provided the bank transit number is encoded thereon in compliance with revised Federal Reserve Bank regulations. Checks for larger amounts, if the difference is to be paid in cash to the students, cannot be accepted. In paying by check, students should exercise care. A bad check, whether given by mistake or otherwise, unless it is the admitted error of the bank concerned, is likely to delay actual payment and thus result in a penalty as outlined in the section on Bad Check Charges.

The University does not maintain a check cashing service for students. It is recommended that students establish checking accounts in local San Antonio banks before enrolling in order that they can easily cash checks in the city. Many local merchants will not cash out-of-town checks.

## Tuition

Pursuant to Subchapter B, Chapter 54, Texas Education Code, each student who registers at UT San Antonio is required to pay tuition ${ }^{2}$ according to the number of semester credit hours for which registration is completed and according to his/her residence classification, as set forth in the tables on the following pages:

[^4]
# TUITION EACH SEMESTER 

RESIDENTS
OF TEXAS
NONRESIDENTS

| Number <br> of Hours <br> Taken |  | U.S. | Foreign |
| :---: | :---: | :---: | :---: |
| 1 | 50.00 | 40.00 | Students |

${ }^{3}$ Tuition for resident or nonresident students registered for thesis or dissertation credit only is $\$ 12.00$ for residents of Texas and $\$ 50.00$ for nonresidents (U.S. citizens and foreign students) in those instances where such credit is the final credit-hour requirement for the degree in progress. For residence regulations, see the Appendix of this catalog.
${ }^{4}$ Foreign students who registered for the first time before June 20, 1975 are charged $\$ 14.00$ per semester hour, with a minimum of $\$ 200.00$ per semester.

Foreign students who register for the first time after June 19, 1975 are charged $\$ 40.00$ per semester hour of credit, unless (1) an exception for financial need can be demonstrated through the Student Financial Aid Office; or (2) the Coordinating Board, Texas College and University System, certifies that the student's home country charges U.S. citizens at publicly funded colleges and universities a tuition fee equal to or less than $\$ 200.00$ per semester. Students in (1) and (2) above are charged the previous tuition fee of $\$ 14.00$ per semester hour, with a minimum of $\$ 200.00$ per semester.

TUITION EACH SUMMER SESSION
RESIDENTS OF TEXAS

| Number <br> of Hours | 6 | 9 |  | U.S. |  |  | Foreign Students |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Taken ${ }^{5}$ | Weeks | Weeks | Weeks | Citizens | 6 | 9 | 12 |  |
| 1 | 25.00 | 37.50 | 50.00 | 40.00 | 100.00 | 150.00 | 200.00 |  |
| 2 | 25.00 | 37.50 | 50.00 | 80.00 | 100.00 | 150.00 | 200.00 |  |
| 3 | 25.00 | 37.50 | 50.00 | 120.00 | 100.00 | 150.00 | 200.00 |  |
| 4 | 25.00 | 37.50 | 50.00 | 160.00 | 100.00 | 150.00 | 200.00 |  |
| 5 | 25.00 | 37.50 | 50.00 | 200.00 | 100.00 | 150.00 | 200.00 |  |
| 6 | 25.00 | 37.50 | 50.00 | 240.00 | 100.00 | 150.00 | 200.00 |  |
| 7 | 28.00 | 37.50 | 50.00 | 280.00 | 100.00 | 150.00 | 200.00 |  |
| 8 | 32.00 | 37.50 | 50.00 | 320.00 | 112.00 | 150.00 | 200.00 |  |
| 9 | 36.00 | 37.50 | 50.00 | 360.00 | 126.00 | 150.00 | 200.00 |  |
| 10 | 40.00 | 40.00 | 50.00 | 400.00 | 140.00 | 150.00 | 200.00 |  |
| 11 | 44.00 | 44.00 | 50.00 | 440.00 | 154.00 | 154.00 | 200.00 |  |
| 12 | 48.00 | 48.00 | 50.00 | 480.00 | 168.00 | 168.00 | 200.00 |  |
| 13 | 52.00 | 52.00 | 52.00 | 520.00 | 182.00 | 182.00 | 200.00 |  |
| 14 | 56.00 | 56.00 | 56.00 | 560.00 | 196.00 | 196.00 | 200.00 |  |
| 14 |  |  |  |  |  |  |  |  |
| Each Addi- |  |  |  |  |  |  |  |  |
| tional Hour | 4.00 | 4.00 | 4.00 | 40.00 | 14.00 | 14.00 | 14.00 |  |

${ }^{5}$ Tuition for resident or nonresident students registered for thesis or dissertation credit only is $\$ 12.00$ for residents of Texas and $\$ 50.00$ for nonresidents (U.S. citizens and foreign students) in those instances where such credit is the final credit-hour requirement for the degree in progress. For residence regulations, see the Appendix of this catalog.
${ }^{6}$ Foreign students who registered for the first time before June 20, 1975 are charged $\$ 14.00$ per semester hour, with a minimum of $\$ 200.00$ per twelve-week summer session.

Foreign students who register for the first time after June 19, 1975 are charged $\$ 40.00$ per semester hour of credit, unless (1) an exception for financial need can be demonstrated through the Student Financial Aid Office; or (2) the Coordinating Board, Texas College and University System, certifies that the student's home country charges U.S. citizens at publicly funded colleges and universities a tuition fee equal to or less than $\$ 200.00$ per semester or 12 -week summer session or comparable period, or $\$ 100.00$ per 6 -week summer term or comparable period. Students in (1) and (2) above are charged the previous tuition fee of $\$ 14.00$ per semester hour, with a minimum of $\$ 200.00$ per twelveweek summer session.

## Residence Regulations

A student entering or re-entering The University of Texas at San Antonio may be required to file a residence questionnaire. The student's status as a resident or nonresident will be made in accordance with the Texas Education Code. ${ }^{7}$ If the applicant has any doubt about his status, he/she should consult the Director of Admissions and Registrar prior to registration. There can be no change in residence classification except under the express authorization of the Registrar.

## Penalty for Payment of Tuition Under Incorrect Residence Classification

Responsibility for registering under the proper residence classification rests with the student. A student who wrongly pays the Texas, rather than the nonresident, tuition is subject to a penalty of $\$ 10.00$ for each registration under incorrect residence classification. In addition, if a student has obtained residence classification by virtue of deliberate concealment or misrepresentation of facts, he/she may be subject to disciplinary action.

[^5]
## Student Use Fee and Student Service Fee

Each student who registers at UT San Antonio is required to pay student use and service fees ${ }^{8}$ according to the number of semester credit hours for which registration is completed, as set forth in the table below:
\(\left.\begin{array}{ccc}SEMESTER \& \& STUDENT <br>

HOURS \& USE FEE \& SERVICE\end{array}\right]\)| FEE |  |  |
| :---: | :---: | :---: |
| 1 | 4.00 | 2.50 |
| 2 | 8.00 | 5.00 |
| 3 | 12.00 | 7.50 |
| 4 | 16.00 | 10.00 |
| 5 | 20.00 | 12.50 |
| 6 | 24.00 | 15.00 |
|  |  |  |
| 7 | 28.00 | 17.50 |
| 8 | 32.00 | 20.00 |
| 9 | 36.00 | 22.50 |
|  |  |  |
| 10 | 40.00 | 25.00 |
| 11 | 44.00 | 27.50 |
| 12 | 48.00 | 30.00 |
| 13 | 52.00 | 30.00 |
| 14 | 56.00 | 30.00 |
| 15 | 60.00 | 30.00 |
| Each Additional |  |  |
| Hour | 4.00 | $-0-$ |

## Degree Application Fee

An $\$ 8.00$ application fee is required of candidates for a degree. Application for a degree must be made at the Registrar's Office and the fee paid no later than the end of the add/drop period of the term (Fall, Spring, or Second Six-Week Summer Session) in which the student plans to graduate. This fee is not refundable and must be paid each time an application for a degree is filed. Cap and gown rental is not provided as part of the degree application fee.

Veterans attending The University under an exemption ${ }^{9}$ are not exempt from payment of this fee.

[^6]A late registration fee of $\$ 5.00$ is charged for the first day of the late registration, and an additional $\$ 2.50$ per day is assessed thereafter. The maximum late registration fee for any one term is $\$ 15.00$. This fee may be waived only in extenuating circumstances by the President or his delegate. The late registration fee is not refundable.

## Library Fee For Limited Borrower's Card

Limited Borrowers are defined in the Appendix of this catalog. By paying $\$ 15.00$, a Texas resident may obtain a Limited Borrower's Card for borrowing unrestricted materials in person; this fee is also required of non-students who are auditing UT San Antonio courses and who wish library privileges. Persons holding a Limited Borrower's Card are charged a fee of $\$ 2.00$ (plus copying costs, if any) for each interlibrary loan request.

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

Fines are charged for overdue library materials and for library items that are lost or damaged. ${ }^{10}$

## Challenging Undergraduate Courses by Examination Fee

A fee of $\$ 15.00$ per examination is required of students who challenge UT San Antonio undergraduate courses. Procedures for challenging undergraduate courses by examination are set forth under Bachelor's Degree Regulations in this catalog.

## Bad Check Charge

A charge of $\$ 5.00$ 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 wittingly or unwittingly has previously given two bad checks.

[^7]
## Replacement of Student Identification Card Charge

A charge of $\$ 2.00$ is assessed for the issuance of a duplicate student identification card. This charge must be paid at the time the application for the duplicate is made.

## Transcript Charge

A charge of $\$ 1.00$ is made for each UT San Antonio transcript. This fee must be paid before a transcript will be issued.

## Laboratory Fee

In certain courses a laboratory fee, not to exceed the actual cost of materials and supplies and not less than $\$ 2.00$ nor more than $\$ 8.00$, may be charged. When a laboratory fee is charged, the schedule of classes indicates the associated fee. For each course which involves the use of computers in instruction, a laboratory fee of $\$ 8.00$ is charged.

## Supplementary and Special Fees

Certain art, music and other courses may require supplementary or special fees. When such fees are charged, the schedule of classes indicates the associated fee.

## Auditing Fee

All auditors of courses must submit an approved Request for Audit Form to the Registrar.

Students registered at UT San Antonio may, with the approval of the instructor and Dean of the College in which the course is offered, audit courses by paying an auditing fee of $\$ 5.00$ per course. The audit fee is not refundable.

Upon approval of a Request for Audit Form, a non-student auditor must pay an auditing fee of $\$ 25.00$ per course. The fee is not refundable. Non-students over 65 are permitted to audit without paying a fee, provided space is available and a Request for Audit Form is approved. Non-student auditors who wish
library privileges may receive them by paying a non-student library deposit (Limited Borrower's Deposit) of $\$ 15.00$ at the John Peace Library.

Permission to audit may be obtained and fees paid only during the late registration period.

## Parking Fees

Parking fees for students are as follows:

| Class B | \$12.00 Student parking permit |
| :---: | :---: |
|  | 8.00 if purchased during the spring semester 4.00 if purchased during summer session |
| Class D | 6.00 Motorcycles, motor scooters, motor bicycles <br> 4.00 if purchased during the spring semester <br> 2.00 if purchased during summer session |
| Class M | 1.00 Bicycles <br> .50 for less than twelve months |

Student vehicles bearing valid State of Texas Disabled Veteran's license plates are exempt from the payment of parking fees. A partial refund is made for any remaining term(s) in which the student does not enroll.

## Field Trip Fee

A supplementary fee is assessed students in certain courses to pay for the expenses of field trips.

## Physical Instruction Laboratory Fee

A fee of $\$ 4.00$ for a semester or a summer term is required of every student registering for physical instruction. Lockers and towels are provided. Locks must be furnished by the student.

UT San Antonio students not registered for physical instruction who desire to use a locker and towel service may obtain it by paying a fee of two dollars for a semester or summer session or any part thereof. Locks are not provided:

## Non-Student Gymnasium and Facilities Use Fees

The gymnasium and other facilities may be used by nonstudents, as defined below, at specified hours only, and nonrefundable use fees are required. Non-students (including guests) desiring the use of Gymnasium and Convocation Center facilities (with lockers and towels provided, but not locks)
are charged fees according to the following schedule:
CATEGORY ANNUAL FEE
A. UTSA Personnel and Other UT System Personnel

1) Faculty-staff member $\$ 12.00$
2) Faculty-staff spouse 6.00
3) Faculty-staff children 3.00 with a maximum of $\$ 25.00$ per family
4) Student spouse
5) Student children
B. Guest fee
$\$ 1.00$
Guest of UT San Antonio student, faculty member, or staff member

## Duplicate Fee Receipt

A service charge of $\$ 1.00$ is assessed for the issuance of a duplicate fee receipt. This charge must be paid at the time the application for a duplicate fee receipt is made.

## 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 furnished by The University, or damage to or loss of any other University property. Charges are billed directly to the student or are collected by the department upon reissue of supplies or property. Failure to pay the charges promptly results in denial of the student's readmission or re-enrollment and in refusal to issue the student's transcript by The University. The property deposit records are reviewed periodically, and if charges have been made against the deposit, the student may be required to bring the deposit up to $\$ 10.00$.

The deposit will be refunded upon request, less outstanding charges, only when the student officially withdraws from school or graduates. A general property deposit which remains without call for refund for a period of four years from the date of last attendance at The University shall be forfeited, and the deposit shall become operative to the permanent use and purpose of student scholarships.

## Career Planning and Placement Registration Fee

UT San Antonio students and alumni interested in developing a placement credential file are requested to register with the

Career Planning and Placement Center. Currently enrolled students are permitted free registration. Alumni are assessed a $\$ 3.00$ annual registration fee. Registrants receive, as part of their registration, the preparation, duplication and maintenance of three credential sets. A fee of $\$ 1.00$ is assessed for each additional set requested by the registrant during his/her current year of registration.

## Teacher Placement Service Fee

Presently enrolled students of The University of Texas at San Antonio may register for teacher placement services with the Office of Teacher Certification and Placement on a no fee basis. UT San Antonio alumni are assessed a $\$ 3.00$ annual fee for the same services. Both students and alumni receive, as part of their registration, the preparation, duplication and maintenance, of three credential sets. A fee of $\$ 1.00$ is assessed for each additional set requested by the registrant during his/her current year of registration.

## Professional Liability (Malpractice) Insurance

Prior to official registration for courses that place them in a clinical situation, allied health students are required under the Rules and Regulations of The University of Texas System Board of Regents to show evidence of professional liability (malpractice) insurance coverage. The Director of the Division of Allied Health and Life Sciences may be consulted relative to obtaining such insurance.

## Exemption from Tuition and Fees

The Statutes of the State of Texas prescribe certain cases in which students can be exempted from tuition and/or certain fees. The various types of exemptions are described below; however, in each case it is the student's responsibility to initiate the action of applying for an exemption through the Registrar's Office and providing satisfactory evidence that all conditions required for the exemption have been met. Until such time as the exemption is granted, a student is required to pay all tuition and fees from his or her own funds. Students who might be eligible for an exemption should apply for the exemption at the Registrar's Office at least one month prior to registration for the term in which they plan to utilize the exemption.

Exemption of Texas ex-service personnel. Legal residents of Texas are exempted from tuition and certain required fees when they meet all the following criteria prior to the end of the registration period for the term that the exemption is claimed:

1. They have resided in Texas for a period of not less than twelve (12) months prior to the date of registration.
2. They served in the armed forces or in certain auxiliary services in World War I, World War II, the Korean conflict, or the Cold War. If service was in the Cold War, they must have served on active military duty (other than for training) for more than 180 days.
3. They were bona fide legal residents of the state at the time of entering service.
4. They were honorably discharged from service (those who served in World War II and who were discharged because of being over the age of thirty-eight or because of a personal request are not eligible for this exemption).
5. They are not eligible for education benefits provided for veterans by the United States Government.

Benefits for children of Texas veterans. Exemption from payment of tuition and certain fees is extended to children of members of the armed forces who were killed in action or died while in the service in World War II or the Korean conflict or in the Cold War, and to orphans of members of the Texas National Guard and the Texas Air National Guard killed since January 1, 1946, while on active duty.

Exemption of children of certain disabled public employees. Children of certain firemen, peace officers, employees of the Texas Department of Corrections, and game wardens who have suffered injury resulting in death or disability sustained in the line of duty are exempt from payment of all tuition, fees, and charges.

Exemption of certain deaf and blind students. Blind or deaf persons who are Texas residents are, under certain conditions, exempt from payment of tuition, general property deposit, and certain fees.

Children of prisoners of war or persons missing in action. A dependent child under 21 years of age, or a person under 25 52
years of age who receives the majority of support from his or her parent or parents, is exempted from the payment of tuition and certain fees if he or she is the dependent child of any person who is a domiciliary of Texas on active duty as a member of the armed forces of the United States and who at the time of registration is classified by the Department of Defense as a prisoner of war or as missing in action.

Student Use Fee. When the payment of this required fee causes undue hardship, a student may receive an exemption from payment of the fee by making application through the Office of Student Financial Aid. Exemptions are limited to $5 \%$ of the total enrollment.

Exemption of Certain High School Graduates. The highest ranking graduate of an accredited Texas high school, as certified by the Texas Education Agency, is exempt from the payment of tuition during the first four regular sessions immediately following graduation.

## Refund Policy and Adjustment of Fees for Students Withdrawing, Adding, or Dropping Courses

A student who officially withdraws from The University receives a full refund of tuition and refundable fees paid, only if he or she does so before the end of the last official day of registration (not including those days designated as late registration).
In a semester, upon surrender of the student identification card, a student withdrawing officially a) after the last official day for registration but during the first week of classes of a semester receives a refund of 70 percent of the applicable portion of the tuition and fees; b) during the second week, 60 percent; c) during the third week, 40 percent; d) during the fourth week, 20 percent; e) during the fifth week and thereafter, no refund. In a summer term, a student withdrawing officially a) after the last official day for registration, but during the first three class days, receives a refund of 70 percent of the applicable portion of the tuition and fees; b) on the fourth, fifth, or sixth day, 50 percent; c) after the sixth class day, no refund. ${ }^{11}$
A student who enrolls in The University for a given term and who is subsequently required to withdraw because of academic

[^8]dismissal the previous term, receives a full refund of all tuition and fees.

Refunds of tuition, applicable fees, student use fees, and student service fees are made for courses dropped during the first twelve class days in the fall and spring or during the first four class days in a summer term if the student paid more than the minimum required and if the student has dropped below the total number of hours for which he or she originally registered. Tuition and applicable fees for added courses are billed to the student.

No refunds are made until 15 days have elapsed from the time fees were paid unless the fees were paid in cash or by money order. Refund checks are mailed to the address indicated when the student withdraws from The University. Students entitled to refunds should allow ten working days after the fifteen-day clearing period for receipt of the refund.

The University reserves the right to deduct from the refund any outstanding financial obligations owed The University.

## Debts Owed The University

In the event of non-payment of debts owed to The University (or failure to meet admission requirements), any of the following actions may be taken:

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.

When a student has any of the above actions against his or her record, it is the student's responsibility to clear obligations with The University and see that the Registrar's Office is notified. No further services of The University will be provided until all obligations are cleared.

A student who pays tuition and fees with a check which is not subsequently honored by a bank and the fault is not that of the bank and who does not make payment within five days will be withdrawn from The University by the Registrar for nonpayment of tuition and fees.

# IV. Institutional Policies Concerning Students 

## Rules and Regulations of The Board of Regents

All students of The University of Texas at San Antonio are subject to the rules and regulations governing student conduct and discipline as set out in the Rules and Regulations of the Board of Regents of The University of Texas System and in the UT San Antonio Student Handbook.

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

A student at The University neither loses the rights nor escapes the responsibilities of citizenship. He or she is expected to comply with both the penal and civil statutes of the State and the federal government, the Rules and Regulations of the Board of Regents, and the policies and procedures of The University of Texas at San Antonio.

The Student Handbook may be obtained in the Office of the Dean of Students.

## Student Health Services

The Application for Admission to The University of Texas at San Antonio includes an Immunization Record Form. This form must be completed by the student's family physician and returned to The University Student Health Center before the student can register.

When The University is in session, a registered nurse is on duty during class hours, and, when needed, a referral is made to a physician for medical treatment. The University Student Health Center has only limited medical capabilities.

Students are advised to carry health and accident insurance. Out-of-town students should have documents to verify insurance coverage to avoid possible delays in obtaining medical treatment.

## Counseling Center

The Counseling Center provides professional services which are designed to help meet the personal and developmental needs of UT San Antonio students. Individual or group sessions are available for students seeking personal, educational, or vocational counseling. Counseling and educational psychologists in the Center deal with a variety of student concerns and utilize counseling techniques, psychological assessment, and other aids to assist students in need of specialized service. All counseling is free, confidential, and on a voluntary basis.

## Testing Center

The Testing Center provides a university-wide testing service. National tests are given on national testing dates. For the student seeking a better self-understanding, interest and personality inventories and achievement and intelligence tests may be scheduled by appointment in the Testing Center.

Students are encouraged to satisfy degree requirements through credit by examination (covered in Section VII). A brochure on Credit by Examination at UT San Antonio is available on the various tests which are accepted for credit by The University. For additional information students should consult the Credit by Examination section of the present catalog and the Credit by Examination brochure available from the Testing Center, as well as in the Admissions' Office.

## Advisement

Advisement for undeclared majors is a function of the Office of the Dean of Students. This program is designed to provide basic information to students who are undecided about their educational goals. Academic advising for declared majors is carried on in the several Colleges, and information should be sought in the academic Deans' offices.

Advisement for all freshmen enrolled in the Provisional Admission Program is coordinated by the Office of the Dean of Students. A student who is admitted under the Provisional

Admission Program and who declares an intention of majoring in a given area is advised by an academic advisor in the student's projected major area. If the student has no projected major, he/she is advised through the Dean of Students' Office by a faculty member designated to advise provisional admission students with undeclared majors.

## Financial Aid

Loans, scholarships and grants-in-aid are administered through the Office of Student Financial Aid. Financial aid counseling for students and/or parents is an integral part of the total financial aid function. Applicants are urged to contact the UT San Antonio financial aid office about advice concerning opportunities for self-help and sources of financial aid and guidance that will assist them in making decisions about financing their education. An appointment with the Director of financial aid is encouraged for this purpose.

Application forms and information on how to apply are available at the Student Financial Aid Office. Eligible students are notified of the amount and sources of financial aid only after they have been admitted officially to The University. Applicants should apply for admission therefore, before or at the same time they apply for financial aid.

In addition to providing scholarships and loan funds, UT San Antonio participates in state and federal financial aid programs, such as the College Work-Study Program, the Hinson-Hazlewood Loan Program, the Federally Insured Student Loan Program, the Veterans' Administration Educational Loan Program, the Basic Educational Opportunity Grant Program, the Supplementary Educational Opportunity Grant Program, the Texas Public Educational Grant Program, and the Law Enforcement Education Program. A limited number of scholarships is also available to students with high academic credentials. Non-interest, short-term emergency loans of up to $\$ 125$ are available to students. These are repayable during the semester in which they are made.

Scholastic aptitude and financial need are important factors in determining eligibility for most programs.

All undergraduate students needing financial aid are strongly
encouraged to apply for a Basic Educational Opportunity Grant. A separate application is required for this purpose. BEOG applications are available from the UT San Antonio Student Financial Aid Office or from high school counseling offices.
High school seniors are encouraged to contact their counselors about available scholarships.

Each financial aid applicant must:

1. File a Parent's or Student's Financial Statement with the College Scholarship Service or American College Testing Program. Married or independent students should request forms designed for them.
2. File a UT San Antonio Application for Financial Aid with the Financial Aid Office.
3. Meet deadlines set by the Office of Student Financial Aid.

The Texas Rehabilitation Commission offers assistance for tuition and nonrefundable fees to students who have certain disabling conditions provided their vocational objectives have been approved by a Texas Rehabilitation Commission Counselor. Examples of such conditions are orthopedic deformities, emotional disorders, diabetes, epilepsy, heart conditions, etc. Other services are also available to assist the handicapped student to become employable. Applicaton for such service should be made at the Texas Rehabilitation Commission, 102 Rilla Vista, San Antonio, Texas.

## Career Planning and Placement Center

The Career Planning and Placement Center offers a variety of services and educational programs in response to the career planning and employment placement needs of UT San Antonio students and alumni. ${ }^{1}$

To assist students in making career choices, the Center provides information relative to employment opportunities for which students may expect to qualify upon completion of a given degree.

[^9]Such information includes, when available, a record of the employment of previously enrolled students, their average starting salaries, and the percentages of UT San Antonio graduates obtaining employment in those fields for which their previous courses of study were intended as preparation.
The Center provides the following employment placement services: part-time, summer and vacation employment opportunities; career placement for students and alumni after graduation; and assistance in the selection of graduate school or further training. Students and alumni may develop a placement file and may meet with representatives from business, industry, and government who conduct on-campus interviews for purposes of career employment.

Educational placement programs are also available at the Center and are designed to assist individuals in the development of effective employment - search skills, techniques and methods, e.g., correspondence methods, mailing campaigns, resume development, and interviewing skills training. Individuals are seen on a "drop-in" or appointment basis.

Students and alumni are encouraged to use the career, vocational, and educational counseling services and the career reference library. It is recommended that students take the aptitude and interest assessment tests and that they participate in the life planning workshops, value clarification labs, decisionmaking labs, and career exploration seminars.

## Teacher Placement Service

The Teacher Placement Service, located in the Office of Teacher Certification and Placement, assists students from all Colleges and Divisions within The University of Texas at San Antonio who seek employment in the field of education by facilitating contact and communication between students and employers. ${ }^{2}$

The services of the teacher Placement Service are available to all presently enrolled students, as well as to alumni of The University of Texas at San Antonio.

[^10]
## Athletics

Initially, the athletic program at UT San Antonio consists of general recreational activities and intramural programs. These recreational and intramural programs depend upon the availability of facilities and staff. Eventually, students will be able to participate in handball, track, tennis, basketball and volleyball. Playing fields are planned for soccer, touch football, softball and baseball. As interest among students develops, competitive programs will be offered.

## Living Accommodations

The University provides no on-campus housing. Students are responsible for providing their own housing facilities. A housing directory is available in the Office of Community and Student Affairs to assist students in finding living accommodations in the San Antonio community.

## Identification Cards

Student identification cards are mandatory. The card is nontransferable. A replacement cost of $\$ 2.00$ is charged for lost or mutilated cards.

## Directory Information

All educational records of students at The University of Texas at San Antonio are maintained in accordance with State and Federal laws.

Pursuant to the Family Educational Rights and Privacy Act, Directory Information at UT San Antonio includes the following:

Student's Name
Current and Permanent Address
Telephone Listing
Date and Place of Birth
Major Field of Study, including concentration Classification
Schedule of Classes and Number of Hours Enrolled

Participation in Officially Recognized Activities and Sports Weight and Height of Members of Athletic Teams
Dates of Attendance
Degrees and Awards Received
Most Recent Previous Educational Agency or Institution Attended

A student's consent is presumed to have been given that all Directory Information as it pertains to him or her is deemed public unless a written request to restrict the information as confidential is made by the student in the Registrar's Office on a prescribed form no earlier than the first day of registration and no later than the 12th class day in a semester or the 4th class day in a summer term. This consent or restriction remains in effect for the duration of the semester or summer term and must be refiled each subsequent semester or term that the student wishes to restrict the information. In those cases where a student files a request for restriction of information, such information is treated as confidential, and, in response to public inquiries, The University will verify only whether an individual is currently enrolled at The University.
For more specific information concerning confidentiality of student records or release of information consult the Student Handbook available in the Office of the Dean of Students.

## Orientation

An orientation program is available to acquaint new students with the purposes and programs of The University, to advise them of registration procedures, and to allow for interviews among students, parents, counselors, and faculty members.

## Lost and Found

All personal articles found at The University are placed in the Office of the Dean of Students. Items can be claimed upon proper identification of ownership.

# V. Admission <br> Requirements 

## Admission

Admission requirements for undergraduate study at UT San Antonio are designed so that students admitted will have a high probability of success in undergraduate academic work. The criteria for the various classifications of admission are set forth in the following paragraphs.

## Admission of First-Time Freshmen'

In-state applicants for admission who have graduated from an accredited Texas high school within five years of the date of first enrollment at UT San Antonio and who have never attended a college or university must have a minimum total score on either the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board or the American College Testing Program (ACT) corresponding to their high school rank in class as indicated in the following table:

High School Rank in Class

Minimum Total SAT Score

Minimum Total ACT Score

| Top $10 \%$ | Score must be sub- <br> mitted; no minimum <br> score is required | Score must be sub- <br> mitted; no minimum <br> score is required |
| :--- | :--- | :--- |
| Top 25\% | 700 | 15 |
| $\quad$ (but not top 10\%) | 750 | 17 |
| Second $25 \%$ | 800 | 19 |
| Third $25 \%$ | 850 | 21 |
| Fourth 25\% | 850 | 21 |

In-state applicants for admission who have graduated from an accredited Texas high school five or more years prior to the date of first enrollment at UT San Antonio and who have never attended a college or university are eligible for admission regardless of high school rank in class and irrespective of SAT or ACT scores, although the submission of SAT or ACT scores is required for admission.

[^11]Out-of-state applicants for admission who have graduated from an accredited high school within five years of the date of first enrollment at UT San Antonio must be in the top half of their graduating class and must have minimum SAT or ACT scores corresponding to those required for in-state applicants who graduate in the top 25 percent or the second 25 percent of their class.

Out-of-state applicants for admission who have graduated from an accredited high school five or more years prior to the date of first enrollment at UT San Antonio and who have never attended a college or university are eligible for admission regardless of high school rank in class and irrespective of SAT or ACT scores, although the submission of SAT or ACT scores is required for admission.

Recommended preparation. High school students who anticipate applying to UT San Antonio are strongly encouraged to include in their preparation for university study work in courses involving language skills; courses in quantification skills; and courses in subjects contributing to a broad academic background, such as English and foreign languages, speech, social sciences, history, mathematics and sciences, and the fine arts. ${ }^{3}$ The nature and number of high school units ${ }^{4}$ are suggested as follows:

Subject Units
English
Mathematics: algebra, geometry, trigonometry, and advanced mathematics 3 or more

One foreign language 2 or more
Natural science 2 or more
Social science 2 or more

These specific units, although not required for admission, are recommended, since The University expects each applicant to be prepared for academic work at a higher level.

[^12]Early admission. Applicants for admission as first-time freshmen, who are attending high school at the time of application for admission and who meet the rank-in-class and SAT or ACT score requirements at the end of their first semester ${ }^{5}$ of the senior year, are admitted pending certification of high school graduation. Applicants not meeting these requirements prior to graduation are reconsidered for admission upon submission of final transcripts or new test scores.

## Admission of Transfer Students

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

1) Meet the same rank in class and SAT, or rank in class and ACT, requirements as first-time freshmen;
2) Have at least a " C " average ( 2.0 grade-point average on a 4.0 scale) on all academic college or university hours attempted; and
3) Must be in good standing at the last institution attended.

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

1) Have at least a " C " average ( 2.0 grade-point average on a 4.0 scale) on all academic college or university hours attempted; and
2) Must be in good standing at the last institution attended.

Applicants for admission as transfer students who are enrolled at

[^13]another accredited college or university at the time of application for admission and who have at least a " $C$ " average on all academic college-level work attempted to date at other institutions may be admitted pending receipt of final transcripts verifying the cumulative " C " average and good standing. For applicants not meeting these requirements determination of eligibility for admission is deferred until all final transcripts are received.

## Admission of International Freshmen Students

All applicants for admission as freshmen who are not citizens of the United States or whose previous education has been outside the United States must:

1. Have credits equivalent to those of students entering from an accredited secondary school in the United States, as determined by the Admissions Office;
2. Have superior grades on work done in secondary school, as determined by the Admissions Office;
3. Submit scores from the Test of English as a Foreign Language (TOEFL), or successfully complete an intensive course in English from an accredited college or university in the United States. A minimum score of 550 on the TOEFL is required. Subsequent English tests and preparation may be required by a student's advisor if his or her performance in English is unsatisfactory. TOEFL scores are not required for international students from countries where the primary language of instruction is English; nor are TOEFL scores required for non-citizens of the United States graduating from United States high schools although a composite SAT or ACT test score appropriate to rank in class is required.
4. Submit a statement guaranteeing the student's ability to pay all expenses while a student at The University, if attendance under the $\mathrm{F}-1$ (student) visa is anticipated. The statement may be sent from a parent or guardian when endorsed by a bank or other reliable institution, or from a United States citizen who will accept responsibility for the student's financial needs.

## Admission of International Transfer Students

International 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; and
2. Satisfy requirements 3 and 4 above for international freshmen students.

To be eligible for admission, international 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 "C" average ( 2.0 on a 4.0 scale) on all work attempted; and
2. Satisfy requirements 3 or 4 above for international freshmen students

TOEFL scores are not required for non-citizens of the United States graduating from United States colleges and universities with at least a baccalaureate degree.

## Provisional Admission Program for Freshmen

Any Texas resident applying as a freshman who has not attended a college or university and who is a graduate of an accredited high school but who does not qualify for admission due to an inadequate SAT or ACT score or deficiencies in high school preparation may be admitted on a provisional basis in the spring semester or in the first summer term (for both summer sessions). During this time the student is given an opportunity to demonstrate that he or she can perform college-level work and that he or she can reasonably be expected to make progress toward a degree.

A student admitted to the Provisional Admission Program is required to take courses selected from English, mathematics, natural science, and language and may not take courses in other disciplines until the provisional status is removed. The student must demonstrate ability to perform college work by obtaining an overall " C " average ( 2.0 on a 4.0 scale) in 12 hours of work from these fields. Normally, a student is expected to complete these 12 hours of work in the summer sessions or during the
spring semester. Upon completion of 12 hours of work from these fields a student is admitted as a regular university student in subsequent semesters. If a student enrolls for fewer than 12 hours and does not earn a 2.0 grade-point average, but earns at least a 1.50 grade-point average, the student may enroll for the next term. After 12 hours have been completed, the required cumulative grade-point average of 2.0 must have been reached, or the student is not allowed to continue at UT San Antonio.

## Admission as Special Students

An applicant who wishes to enroll in courses at the undergraduate level only without pursuing a degree at The University of Texas at San Antonio should apply for admission as a special student. A special student may register for any undergraduate course for which he or she has the prerequisites and in which space is available.

The requirements for admission as a special student are the same as those for degree-seeking students (see requirements for admission as First-Time Freshmen and Transfer Students). To be admitted later as a regular student, the special student must apply for regular degree-seeking status through the Admissions Office.

## Admission as Transient Students

An applicant who wishes to enroll, normally for one session only, in courses at the undergraduate level without pursuing a degree at The University of Texas at San Antonio should apply for admission as a transient student. In order to qualify as a transient student at the undergraduate level, the applicant must provide a statement of good standing from the college or university last attended, as well as an application for admission.

Transient students may register for any courses for which they have the necessary prerequisites and in which space is available. A student registered in this capacity normally cannot register for a subsequent term unless he or she has been admitted as a transfer or special student according to the provisions set forth above.

## Admission of High School Students

Selected high school seniors may be admitted (as special students) in order to enroll in university courses while completing their high school studies. Such students must meet the admission requirements for first-time freshmen, except for high school graduation, must be recommended for the program of study by the high school counselor, and must be approved for enrollment by the Dean(s) of the College(s) in which they anticipate taking courses. High school students admitted as special students are eligible to register for any undergraduate course for which they have the prerequisites and in which space is available.

## Temporary Admission

Applicants whose previous preparation cannot be evaluated prior to registration may be granted temporary conditional admission. Such admission may be granted by the Registrar for one term only. If the student fails to be granted admission as a degree seeking or special student by the end of the term under the provisions set forth above, The University may disallow subsequent registration. Only in unusual circumstances is temporary admission granted for a first or second term. If granted for a second term, it requires approval of the Vice President for Academic Affairs and the Dean of the College in which the student anticipates taking courses.

## Application Dates ${ }^{6}$

Applications may be submitted as early as nine months before the beginning of the desired term of enrollment. Completed applications and all required supporting documents must be on file in the Admissions Office at least 30 days before registration for the term in which studies are to begin. Failure to comply with the application dates may cause deferment of admission until a subsequent term.

[^14]
## Admission Procedures

The procedures to be followed in applying for admission are explained on the Application for Admission form. Each applicant for admission is individually responsible for ensuring that all required support documents (e.g., application form, test results, and required transcripts) are on file in the Admissions Office, since admission is not granted until the applicant's file is complete.

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

## Re-Admission Policies and Procedures

Students who previously have been admitted and registered at The University of Texas at San Antonio, who were enrolled within 12 months prior to the beginning of any semester or summer session, and who are scholastically eligible to return may reenroll without applying for re-admission. Former students who have not been enrolled within 12 months prior to the anticipated date of return must submit an application for re-admission to the Admissions Office.

All former students returning to UT San Antonio who have attended other institutions of higher education since they were last enrolled must submit an official transcript from each such institution. Eligibility for re-admission for any former student depends on the student's academic status at the conclusion of his/her last UT San Antonio enrollment and on any subsequent college or university work attempted.

## Admission to Teacher Certification Programs

The University of Texas at San Antonio has been approved by the Texas Education Agency to recommend students for teacher
certification in various baccalaureate degree areas. ${ }^{7}$ Students who wish to prepare for teaching must apply for admission to The University through the Admissions Office and for admission to a certificate program through the Office of Teacher Certification and Placement. The application for admission to a certificate program should be submitted at the time the student attains upper-division standing.

[^15]
# VI. General Academic Regulations 

All students who attend classes at The University of Texas at San Antonio must be registered officially or must be approved auditors. ${ }^{1}$ Registration instructions are included in the Schedule of Classes issued each term. Questions regarding registration should be directed to the Registrar's Office.

The University 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. The University reserves the right to cancel any course or section in which the number of registrants does not warrant its continuation.

## Late Registration

Late registration permits students to register during the first week of classes in a regular semester or during the first two class days of a summer term. 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 non-refundable. Instructions for late registration are available in the Registrar's Office. Students are not permitted to register after the close of late registration.

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. It may be necessary for late registrants to select courses in which to enroll from a reduced schedule since many courses will have been closed at their capacities.

[^16]
## Adding Courses

After registration, but during the first week of classes in a semester, or the first two class days in a summer term, a student may add a course only with the approval of the course instructor and the student's advisor. After the first week of classes and through the twelfth class day of any semester, or on the third or fourth class day of any summer term, the additional approval of the Dean of the College in which the course is offered is required. ${ }^{2}$ After the twelfth class day of any semester or after the fourth class day of any summer term, students may not add a course except for extremely rare and extenuating circumstances as approved by the Vice President for Academic Affairs. ${ }^{3}$ The University Calendar indicates the deadline dates for adding courses.

## Dropping Courses

Courses officially dropped during the add/drop period (the first week of a semester or the first two days of a summer session) do not appear on the student's transcript. A student who drops courses after the add/drop period and through the first six weeks of a semester or through the first ten days of a summer session may drop courses and receive an automatic grade of "W." The student is responsible for filing the change with the Registrar's Office so that the action becomes official.
If a student finds it necessary to drop a course after the first six weeks of classes in a semester or after the tenth class day in a summer session, it is his/her responsibility to initiate and complete procedures for obtaining an approved withdrawal from

[^17]the course. The forms for this purpose are available in the Registrar's Office. A student who officially drops a course after the first six weeks of classes in a regular semester or after the tenth class day in a summer session must take the form to his/her instructor who will enter on it a grade of " $W$ " if the student is passing the course at the time of withdrawal or a grade of " F " if he/she is failing the course at the time of withdrawal. In order for the action to be official, the student must file the approved form with the Registrar's Office. Students may not drop courses later than the first day of the final week of classes for a semester or a summer term.

The University Calendar indicates the deadline dates for students to drop courses each term.

If a student ceases to attend class, the instructor must notify the Registrar's Office of the date on which attendance ceased.

The instructor may drop a student from the class for nonattendance. If the student is dropped by the instructor during the first six weeks of a semester or during the first ten days of a summer term, the student will receive a grade of "W". From the beginning of the seventh week of a semester and the eleventh day of a summer term, the instructor shall assign a grade of " $W$ " if the student was passing at the time of the withdrawal or a grade of " F " if the student was failing at the time of the withdrawal.

## Withdrawal Procedures

A student who finds it necessary to withdraw from The University (i.e., drop all courses for which he/she is enrolled) may obtain the form for this purpose from the Registrar's Office. After completing the required form, the student must file it with the Registrar's Office in order to withdraw officially. Students who officially withdraw from The University during the first six weeks of a semester or during the first ten days of a summer term, will receive a grade of "W." Students who officially withdraw after the first six weeks of classes in a regular semester or after the tenth class day of a summer session will receive a grade of " $W$ " for each class they are passing at the time of withdrawal and a grade of " F " for each class in which they are not passing at the time of withdrawal. Students who withdraw from all classes are subject to The University's academic probation and dismissal regulations.

Students withdrawing should refer to the regulations on refunds of tuition and fees.

## Auditing of Courses

UT San Antonio students and non-students who wish to audit a course may do so with the approval of the instructor and the Dean of the College in which the course is offered, providing there is 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 UT San Antonio credit is granted for courses that are audited.

All auditors must submit the Request for Audit Form to the Registrar. A UT San Antonio student pays an auditing fee of $\$ 5.00$ per course and auditors who are not registered UT San Antonio students must pay an auditing fee of $\$ 25.00$ per course. Non-student auditors who wish library privileges may receive them by paying a non-student library deposit (Limited Borrower's Deposit) of $\$ 15.00$ at the John Peace Library. Persons over 65 are permitted to audit without paying an auditing fee, if space is available.

Permission to audit may be obtained and fees paid only during the late registration period. No official record is made of enrollment in classes on an audit basis.

## Verification of Enrollment

Following the add/drop period of each semester or summer session, a verification report is sent to each student indicating the schedule of classes in which he/she is officially enrolled. Any discrepancies between the courses shown on the notice and the courses the student is attending should be resolved immediately by the student in person with the Registrar's Office

## Maintaining Registration

Degree candidates are expected to maintain registration until all degree requirements are satisfied. By failing to register for at least one term within a 12 -month period, a student breaks his/her registration and must be readmitted. A "re-admitted student" is required to satisfy the curriculum requirements existing at the time of re-enrollment. Students must be registered during any semester or summer term that they are taking courses or required examinations.

## Change of Major or Degree

A student who wishes to change his/her major or degree objective must obtain the required forms at the Registrar's Office. The change is not official until the form has been completed and filed with the Registrar's Office.

## Student Classification System

Upper-division (junior and senior): A student who has earned 60 or more semester hours of credit.
Lower-division (freshman and sophomore): A student who has earned less than 60 semester hours of credit.

Special: A student who registers for undergraduate courses and who is not seeking a degree at UT San Antonio.
Provisional: A student admitted to the Provisional Admission Program for Freshmen.

## Definition of a Full-Time and a Part-Time Undergraduate Student

A full-time undergraduate student is one enrolled in twelve or more semester hours of courses during a semester or in six or more hours of courses during a six-week summer term.
A part-time undergraduate student is one enrolled in less than twelve hours of credit during a semester or less than six hours during a six-week summer term.
Note: Upon request, the Registrar may certify students as "fulltime" during the term in which they intend to graduate if they are enrolled in the number of hours required to complete the degree, regardless of the number of hours involved.

## Course Numbering System

All courses are designated by four-digit numbers following a two or three-letter abbreviation of the subject field. The first digit indicates the level of the course. All courses with a first digit of 1 or 2 are lower-division (freshman or sophomore) courses, and all courses with a first digit of 3 or 4 are upper-division (junior or senior) courses. All course numbers starting with 5 or higher are graduate courses.
The second and third numbers are used within the Colleges by each Division to distinguish individual courses.
The fourth digit indicates the semester hour value of the course.

## Prerequisites

Prerequisites are stated for many courses listed in this catalog. The purpose of the prerequisite is to advise the student of the background expected of all students in the 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. It is the student's responsibility to be sure that he/she has met all prerequisites before enrolling in any course.

## Grading System

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" (see below), 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 (see below).

Grade-point Average. The UT San Antonio grade-point average (GPA) is determined by dividing the number of grade points earned at UT San Antonio by the number of semester hours attempted at UT San Antonio.
Credits and grades for work completed at other institutions or credits earned by examinations are not included in the UT San Antonio grade-point average.

Grade symbols and grade points.

| Symbols | Grade Points |
| :---: | :---: |
| A | 4 |
| $B$ | 3 |
| C | 2 |
| D | 1 |
| F | 0 |
| CR | 0 |
| EP | 0 |
| W | 0 |
| IN | 0 |
| NR | 0 |

## Explanation of Grade Symbols

" $A$ " through " $F$." A = Outstanding; B = Above average; $\mathrm{C}=$ Average; $\mathrm{D}=$ Below average but passing; $\mathrm{F}=$ Failure.
"CR" or "Credit." The symbol "CR" is used to indicate that satisfactory performance has been demonstrated by examination (see Credit by Examination section).
"EP" or "Postponement of Final Examination." The symbol "EP" is used to indicate that a student has been permitted to postpone a final examination. See "Postponement of Final Examination Provisions," in this section of the catalog.
"W" or "Withdrawal." The symbol "W" is used to indicate that at the time of withdrawal from a course, the student's grade was passing.
"IN" or "Incomplete." The grade of "Incomplete" ("IN"), subject to the regulations of this section, may be assigned a student at the discretion of the instructor. The purpose of the "Incomplete" grade is to allow a student to complete a course without repetition of the regular work of a course. It may not be assigned when a definite grade can be given for the work done. The "Incomplete" grade is given to indicate that some part of the work of a student in the course has, for good reason, not been completed, while the rest has been satisfactorily completed. The student must have been in attendance at least three-fourths of the term.

Incomplete work must be made up within one year of the time that the "Incomplete" grade is received and before the student's graduation. If the work is not completed within this time the "Incomplete" remains on the student's record, and credit may be earned only when the student re-enrolls in the course and completes the entire course satisfactorily.
Whenever a grade of "Incomplete" is assigned, the instructor is required to file a "Requirements for Removal of Incomplete" report with the Registrar's Office.
"NR" or "No Report." The grade "No Report" ("NR") may be assigned a student only by the Registrar. This symbol is assigned only when in unusual circumstances it is not possible to obtain the student's proper grade by the deadline necessary for processing grades at the close of the term and is replaced with the official grade as soon as possible.

## Reporting of Grades

Grades are reported by course instructors by term and are due in the Registrar's Office 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 Registrar's Office 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 Registrar's Office. Only one grade report is mailed; additional copies are not available.

## Change of Grades

Grade changes from "Incomplete" ("IN") to a letter grade must be made within the time limit provision explained under "Explanation of Grade Symbols" in this catalog. A grade of "Incomplete" may be changed by the instructor within the time limits by completing a Removal of Incomplete form and filing it with the Registrar's Office.
Grade changes from "Postponement of Final Examination" ("EP") to a letter grade should be made as soon as possible after the student has taken the authorized postponed final examination. As explained under "Postponement of Final Examination Procedures" in this catalog, 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 is changed by the Registrar's Office to "F." Prior to that time the instructor may change the "EP" to another letter grade by completing a Change of Grade form and filing it with the Registrar's Office.

Any other change of grade must be initiated by the instructor on the required form available in the Registrar's Office and in the Offices of the College 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 Registrar's Office. Requests for a change of grade require
the approval of the Vice President for Academic Affairs before the Registrar will make the change on the student's record.

No change of grade will be considered after six months from the date the original grade was assigned nor will a grade change be made after a student's graduation.

## Class Participation Policy

Regular attendance at and participation in all meetings of courses for which a student is registered is expected. It is the instructor's reponsibility to set and to communicate to students the participation requirements for each course. The degree to which classroom participation is required and whether or not work missed by a student during an absence may be made up is at the discretion of the instructor.

When, in the judgment of the instructor, a student has been absent excessively, the instructor may report the absences to the Dean of the College in which the course is offered and recommend that the student be dropped from the course with a grade of " $F$." If the Dean approves the recommendation, he advises the Registrar, who in turn advises the instructor and student of the action taken.

A student who enrolls for a course and then does not attend is considered absent from class until he/she officially drops the course or until he/she has accumulated an excessive number of absences and is dropped from the class with a grade of " F ."

## Repeating Courses

Only those courses in the catalog in which the course description specifically indicates "may be repeated for credit" may be repeated with both the units and grade points earned being counted. An undergraduate student may, however, repeat a course in which he/she received a grade of "D" or " $F$ " in order to improve his/her grade but cannot receive credit for the course more than once.

If a student re-enrolls in a course in which a " $D$ " has been received, only the highest grade earned is used in calculating the grade-point average. If another " D " or a lower grade is re-
ceived the second time, the repeated course grade is not used in computing the cumulative UT San Antonio grade-point average, and the course is marked as "Duplication" on the student's official records.

Re-enrollment in a course in which an " $F$ " has been received cancels the credit hours charged against the student's UT San Antonio grade-point average if a higher grade is earned. If a second " $F$ " is received, it is not charged against the student's grade-point average and is marked as "Duplication" on the student's official record.

A student may not repeat a course by correspondence or extension study for the purpose of raising his/her grade-point average.

Only undergraduate students may repeat courses for the purpose of raising the grade-point average, as described above.

## Postponement of Final Examination Procedures

A student who is compelled to be absent from a final examination because of illness or other imperative reason should, either in person or through a friend, petition his/her academic Dean for permission to postpone the examination. This request, which requires prior approval by the instructor, 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 thirty days after the original examination period. If for good reason the student cannot take the examination within the thirty-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 end of the fall or spring term following the one for which the postponed examination was approved. If a postponed examination is not taken before the end of the next fall or spring term, the grade in the course will be changed to "F."

## Honor Roll and Dean's List

Undergraduate students who achieve scholastic distinction in a semester, as evidenced by a grade-point average of 3.50 or higher in at least 12 hours of credit, excluaing grades of "CR," and receive no grades of "D," "F," "EP," or "IN" are included on the Honor Roll. Undergraduate students who complete at least 12 semester hours, excluding grades of "CR," and receive no grades of "D," "F," "EP," or "IN" and who achieve a grade-point average of 3.75 or higher for any semester are included on the Dean's List. 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.

## Academic Standing

A student's academic standing is defined as: good standing, provisional status, academic probation, academic dismissal.

Good standing is the absence of any of the other contingencies.
Provisional status is the academic standing of a student admitted under the Provisional Admission Program until regular status is earned or the student is dismissed for scholastic deficiency.

Academic probation describes the standing of a student who falls in one of the following categories: 1) a student who earns a grade-point average of less than 1.50 in any term; 2) a lowerdivision student (less than 60 semester hours of credit earned) who is deficient from a " $C$ " (2.0) average by 10 or more grade points in all work attempted at UT San Antonio; 3) an upperdivision student ( 60 or more semester hours of credit earned) who fails to achieve and maintain a cumulative grade-point average of " C " (2.0) in all work attempted at UT San Antonio; 4) a student who has been reinstated following academic dismissal. Students on academic probation are encouraged to discuss their status with their academic advisors, with an admissions counselor, and/or with a member of the staff of The University's Counseling Center.

Academic dismissal occurs when: 1) an undergraduate student enrolls for more than three semester hours of credit and earns
a grade-point average of less than 1.00 for that term or 2) an undergraduate student who is on academic probation at the beginning of the term has a cumulative grade-point average deficiency in UT San Antonio courses at the close of that term that would again place the student on probation, unless the term grade-point average is above 2.50 .

## Petition for Reinstatement

A student who has been dismissed academically may petition for reinstatement. Information and petition forms are available in the Registrar's Office.

## 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 his/her scholastic work.
"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 unacknowledged incorporation of that work in one's own written work offered for credit), and collusion (the unauthorized collaboration with another person in preparing course work offered for credit).

Should a student be accused of scholastic dishonesty, the Dean of the College in which the student is enrolled may initiate disciplinary proceedings.

## Cancellation of Enrollment

Any student who fails to fulfill admission or registration requirements or who otherwise fails to adhere to academic regulations is subject to having his/her enrollment for that term cancelled. Application for re-admission to a subsequent term may be considered, provided the deficiency which resulted in the cancellation has been removed.

## Transcripts

Official transcripts of all course work taken at The University of Texas at San Antonio are available in the Registrar's Office. Requests for transcripts must be in writing and must bear the signature of the student whose record is requested. A fee of $\$ 1.00$ is charged for each copy of the transcripts and must be paid in advance. Transcripts from other institutions submitted to UT San Antonio become the property of The University and are not reproduced and/or mailed to other institutions, agencies, or individuals. Upon request, work in progress (i.e., a listing of classes in which the student is currently enrolled) is included with the transcript without additional charges.

Transcript service is withheld from students who have a financial obligation or other commitment outstanding to The University until the obligation is cleared.

## Release of Transcripts and Academic Records

UT San Antonio transcripts and other information from a student's academic records are released by the Registrar only upon written request from the student or other person authorized by law and when payment of the appropriate fee is made. Exceptions may be made in response to a subpoena or court order and as provided in the policy on releasing directory information set forth in this catalog.

All official certifications with regard to the academic performance or status of a student or former student of The University of Texas at San Antonio are made by the Registrar's Office.

## Change of Name

A student's name on official records at UT San Antonio is the name under which the student applied for admission, unless a Change of Name form has been processed through the Registrar's Office. Name changes are made only when appropriate legal documentation accompanies the request, except that upon marriage a student may declare the newly taken name.

## VII. Bachelor's Degree Regulations

## Degree Requirements

In order to receive a bachelor's degree from UT San Antonio, a student must comply with the following minimum requirements: ${ }^{1}$

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-wide general education requirements. (See immediately below.)
3. Complete the major and support-work requirements and the free elective requirements ${ }^{2}$ for the desired degree. (See section IX of catalog.)
4. Meet the residence requirements. (See below.)
5. Achieve an overall 2.0 grade-point average in all work attempted at UT San Antonio and a 2.0 grade-point average in all work included in the major.
6. Be in good academic standing at UT San Antonio.

The only restrictions placed upon courses used as free electives are:

1) that a specified number of free elective credits must be at the upper-division level for some degree programs;
2) that a maximum of six hours of physical activities courses can be applied to the free electives allowed for any UT San Antonio degree program; and
3) that a maximum of nine hours of military science credit can be applied to the free electives allowed for any UT San Antonio degree program.
[^18]
## General Education Requirements

All candidates for a bachelor's degree at The University of Texas at San Antonio must satisfy the following university-wide general education requirements. ${ }^{3}$

1. Complete a minimum of 35 semester hours as follows:
A. Nine semester hours in English and humanities (ENG 1013 and ENG 1023 are required of all students, with the three remaining hours to be selected from ENG 1033, ENG 1043, or HUM 1053).
B. Six semester hours in American history or three hours each in Texas and American history. ${ }^{4}$ (See the Appendix for a list of eligible courses.)
C. Six semester hours in U.S. and Texas government. ${ }^{5}$ (See the Appendix for a list of eligible courses.)
D. Nine semester hours in a single foreign language. ${ }^{6}$
E. Four semester hours in mathematics, computer science, or systems design.
F. One semester hour of library study, LIB 1001. (Optional for students entering with 60 hours or more.)
2. Complete an additional 15 semester hours of required electives as follows:
A. Students majoring in art and design, English, foreign

[^19]language, humanities, or music must select at least six hours from Group B, six hours from Group C, and three additional hours from either Group B or C below.
B. Students majoring in business, criminal justice, or any of the social sciences must select at least six hours from Group A (three of which should be in the fine arts), six hours from Group B, and three additional hours from either Group A or B below.
C. Students majoring in applied science; biology; chemistry; mathematics, computer science, and systems design; or allied health professions must select at least six hours from Group A (three of which should be the fine arts), six hours from Group C, and three additional hours from Group A or C below.
D. Students majoring in Early Childhood and Elementary Education or in Health and Physical Education must select at least six hours from each of two groups (A, B, or C , excluding education) and an additional three hours from any of Groups A, B, or C (excluding education) below. Three hours should be in art or music.

| Group A | Group B | Group C |
| :---: | :---: | :---: |
| English | Applied, Biological, | Social Sciences |
| Foreign Languages | Physical, and | Business |
| Classics | Earth Sciences | Education ${ }^{7}$ |
| Communications | (including | Bicultural-Bilingual |
| Comparative | Astronomy) | Studies |
| Studies in the Humanities | Mathematics, Computer | English as a Second Language |
| Humanities | Science and | Environmental |
| Linguistics | Systems Design | Management |
| Philosophy |  | Criminal Justice |
| Architectural Design |  |  |
| Art |  |  |
| Art History and Criticism |  |  |
| Music |  |  |

[^20]
## Minimum Residence Requirements

The following minimum residence ${ }^{8}$ requirements at UT San Antonio 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 hours of credit in UT San Antonio courses must be completed before a degree can be conferred.
2. Twenty-four of the last thirty semester hours must be completed in residence, with the exception that among the UT System components, a student may, with the approval of the appropriate Dean, transfer additional course work to his/her program at the degree-granting institution.
3. Of the 39 upper-division hours required in all degree programs at UT San Antonio, 18 of these must be earned in UT San Antonio courses.
4. At least six hours of upper-division UT San Antonio course work in the major must be completed. Additional hours in the major sequence may be required under individual UT San Antonio degree plans, as set forth in section IX of this catalog.
[^21]
## Transfer of Credit

Undergraduate transfer of credit policies of The University of Texas at San Antonio are designed to reduce the difficulties often experienced by students seeking to transfer credit from one institution to another. To prevent unnecessary loss of time and credit, prospective transfer students are encouraged to inform themselves as early as possible of UT San Antonio's admission policies (see Section V) and degree requirements in their areas of interest (see Section IX). Students attending community colleges should be guided as well by the Core Curricula designed and adopted by the Coordinating Board, Texas College and University System to simplify the transfer of credit, copies of which are available through most community college counselors. Questions regarding the transferability of courses should be addressed to the UT San Antonio Admissions Office.

The Coordinating Board, Texas College and University System 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 UT San Antonio Undergraduate Catalog, students who have successfully completed these core curricula at other institutions are given full credit toward the appropriate degree at UT San Antonio.

Undergraduate college credits completed at other institutions are evaluated for transfer to UT San Antonio by the Director of Admissions and Registrar on the basis of UT San Antonio equivalency tables and according to the following guidelines:

1. 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).
2. 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.
3. The applicability of particular courses completed at other institutions toward specific course requirements for a baccalaureate degree at UT San Antonio depends upon equivalency of such courses to courses offered by UT San Antonio. Other academic courses are transferred as electives; credit for these courses count 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.
4. When a course has been repeated for credit, the highest grade earned is used in the acceptance of credit.
5. Credits for courses such as remedial courses, vocationaltechnical courses, ${ }^{9}$ orientation, life experience, high school level courses, or mathematics below the college algebra level are not accepted for transfer credit. No transfer credit is granted for the General Education Development Tests.
6. Credit by examination awarded at another accredited college or university is transferred as though the student had completed the course(s) or general subject area(s) at the other institution and is evaluated the same as any other course(s) at that institution. Such credit is subject to all other provisions of this section.
7. Credit earned through accredited colleges and universities for college level academic courses by extension or correspondence (including USAFI courses) is evaluated and accepted for transfer if equivalent to UT San Antonio courses, if applicable to the student's degree program, and if 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, including USAFI). No more than 6 hours of correspondence credit may be applied to the major.

[^22]8. Transfer credit for junior college work may not exceed 66 semester hours. Students who have completed more than 66 acceptable semester hours may apply completed, transferable courses to specific course requirements and thereby not have to repeat the courses. The semester hours for those 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. All course requirements at UT San Antonio which are designated as upper-division may be transferred to UT San Antonio 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 upperdivision level.

If the equivalent of a required upper-division UT San Antonio 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 UT San Antonio in substitution.
9. Transfer credit for military service training school courses is not granted by UT San Antonio. A student having taken such courses may challenge by examination those UT San Antonio courses which appear equivalent to those already completed. (See the paragraph on UT San Antonio Challenge Examinations in the Credit by Examination section of this catalog.) Credit for ROTC or military science, when awarded by another accredited college or university, will be accepted by UT San Antonio as free elective credit within the limitations of the student's degree program (normally a maximum of 9 semester hours). ${ }^{10}$

[^23]10. Credits earned for physical activities courses can be transferred, within the provisions of this section, as free elective credit subject to a maximum of 6 semester hours.
11. Credits earned in partially accredited colleges and universities may be considered for transfer to UT San Antonio on an individual basis and as applicable to the student's degree program.

The University reserves the right to refuse recognition of credit from a non-accredited institution. Any such credit accepted in transfer must be validated by 30 semester hours of course work in residence at UT San Antonio, with a grade-point average of 2.0 or higher in that work.

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 UT San Antonio and their applicability to the student's proposed baccalaureate degree at UT San Antonio.

Students who do not receive transfer credit for specific courses should review the policies for credit by examination.

## Correspondence and Extension Courses

The University of Texas at San Antonio does not offer correspondence or extension courses at this time. For UT San Antonio policies on transfer and credit limitations on such courses, see Transfer of Credit and Minimum Residence Requirements in this section of the catalog.

While enrolled at UT San Antonio, students normally are not permitted to transfer to UT San Antonio credit earned through correspondence or extension courses. 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 about to graduate cannot obtain the course in residence.

## Credit by Examination

A student at The University of Texas at San Antonio may
normally satisfy general education and specific degree requirements through credit by examination. ${ }^{11}$ Except for one type of examination, credit earned by this means is not counted as satisfying minimum residence requirements. The exception noted pertains to credits earned by challenging UT San Antonio undergraduate courses; these credits are counted toward the minimum residence requirements but are not included in the calculation of the student's UT San Antonio grade-point a verage.

Unsuccessful attempts to earn credit by examination do not become part of the student's official academic record.

A brochure on Credit by Examination at UT San Antonio is available from the Office of the Dean of Students on the various tests which may be accepted for credit at The University. The brochure describes the tests 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.

The symbol "CR" (Credit) is awarded for all credit earned by examination.

## UT San Antonio Challenge Examinations

Students enrolled at The University of Texas at San Antonio may "challenge," that is request an examination in, any UT San Antonio undergraduate course for which they have not already received credit. Not all courses, however, consist of materials whose 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.

To challenge a UT San Antonio undergraduate course by examination, the student must enroll in the course and within the

[^24]first three weeks must request to complete it by examination. A charge of $\$ 15.00$ is made for each course challenged by examination. If the student's performance on the examination is at the grade level of " C " or higher, a grade of "CR" 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 examination do not become part of the student's official academic record; the student may, however, elect to drop the course or complete the course on a regular basis following the evaluation of the examination(s) for the course(s) challenged.

Students admitted under the Provisional Admission Program may request to challenge by examination courses in those disciplines to which their enrollment is restricted.

Credits earned by challenging UT San Antonio 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 UT San Antonio grade-point average. These credits are also counted toward the minimum residence requirements. Students may challenge the same UT San Antonio course by examination only once.

## Multiple Majors

A student completing a baccalaureate degree at The University of Texas at San Antonio is not restricted in the number of majors he or she may complete for the degree. However, 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. In such cases, only one degree is awarded. 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.

## Additional Baccalaureate Degrees

A student holding a baccalaureate degree from The University of Texas at San Antonio or from another accredited institution
may receive an additional bachelor's degree in a different major from UT San Antonio. Such a student continues to be classified as an undergraduate and must:

1. Complete a minimum of 30 semester hours of credit in UT San Antonio 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, support courses, elective courses, and upper-division courses, as set forth in this catalog.

## Enrollment in Graduate Courses for Undergraduate Credit

With approval of the student's Advisor, the Dean of the College in which the course is offered, and the Vice President for Academic Affairs, an exceptional undergraduate student may enroll in a graduate course and apply the credit earned to his/her undergraduate degree. An approval form is available at the Registrar's Office.

## Enrollment in Graduate Courses 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 degree must be completed in the term in which he/she is taking the additional course(s) for graduate credit.
2. Permission, on an approved form available at the Registrar's Office, must be obtained from the student's Advisor, the Dean of the College in which the course(s) to be taken for credit is (are) offered, and the Vice President for Academic Affairs. The approved form must be filed with the Registrar's Office by the end of the add/drop period of the term in which the registration is being made.
3. In order to earn graduate credit, the student must graduate at the end of that term; otherwise, the course(s) is (are) regarded as undergraduate credit. If graduate credit is earned, the semester hours are not considered part of the baccalaureate degree program.

## Catalog of Graduation

Candidates for a baccalaureate degree may graduate upon the completion of the requirements as stated in the catalog in effect at the time of initial registration at UT San Antonio, provided they register for at least one term every twelve months, or in any subsequent catalog under which they have enrolled, except that no degree is granted on the basis of the requirements listed in a catalog issued more than seven years prior to the date of graduation. In the event certain required courses have been discontinued, substitutions may be authorized or required by the student's academic Dean.

## Application for the Degree

All degree candidates must officially apply for the degree at the Registrar's Office no later than the end of the add/drop period of the term (Fall, Spring, or Second six-week Summer Session) in which they intend to graduate. Undergraduate students should apply for the degree during the term in which their current enrollment yields 90 semester hours of earned credit. Upon application for the degree, an official degree check is prepared and issued to the student by the Office of Admissions and Registrar.

## Graduation with Honors

Undergraduate students who complete degree requirements for a baccalaureate degree and who have earned an overall grade-point average of 3.50 in all academic college work attempted and have earned a grade-point average of 3.50 in all semester hours attempted at The University of Texas at San Antonio are eligible for graduation Magna Cum Laude. Those who have earned a grade-point average of 3.75 on an overall
basis and at UT San Antonio 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 be graduated with honors when they meet the requirements listed above in addition to completing a minimum of 45 semester hours of credit at The University of Texas at San Antonio, excluding courses challenged by examination in which only the symbol "CR" is recorded.

No degree candidate shall be eligible for graduation with honors if, at the time of graduation, he/she has disciplinary action on his official records in the Registrar's Office.

## Graduation Dates

Degrees are conferred at the end of each semester and at the end of the twelve-week summer session. Public commencement ceremonies are held only at the conclusion of the spring semester. Students who wish to participate in commencement ceremonies at the close of the spring semester and who have graduated during the previous summer or fall terms may do so. Information on the procedures to be followed is available in the Registrar's Office.

## VIII. Summary of Undergraduate Degree Programs and Support Areas for 1976-78

## Summary of Undergraduate Degree Programs

The following undergraduate degree programs are available during 1976-78. ${ }^{\text {. }}$ Detailed requirements for each degree are found in Section IX of the present catalog.

Bachelor of Business Administration (BBA)

Accounting
Concentrations: (1) Accounting
(2) Business Data Systems

Economics
Finance
Management
Concentrations: (1) Business Management
(2) Industrial Management
(3) Marketing Management
(4) Personnel Management

Bachelor of Arts (BA)
Anthropology
Criminal Justice
Early Childhood and Elementary Education
Economics
English
French
German
History
Humanities
Political Science
Psychology
Sociology
Spanish

[^25]```
Bachelor of Fine Arts (BFA)
    Art and Design
    Concentration: Art
Bachelor of Music Education (BME)
    Music
Bachelor of Science (BS)
    Applied Science
    Concentrations: (1) Applied Geology
                            (2) Applied Physics
                            (3) Polymer Science
Biology
Chemistry
Health and Physical Education
Mathematics, Computer Science, and Systems Design
Medical Technology
Occupational Therapy
Physical Therapy
```


## Summary of Undergraduate Support Areas

```
Additional undergraduate courses are available in the following support areas during 1976-78 \({ }^{2}\)
Architectural Design
Art History and Criticism
Astronomy
Bicultural-Bilingual Studies
Business Law
Classics
Comparative Studies in the Humanities
Communications
Educational Psychology (Special Education)
English as a Second Language
Environmental Management
Geography
Linguistics
Philosophy
Russian
\({ }^{2}\) Course offerings in undergraduate degree programs may be postponed if enrollments or resource and space limitations do not warrant their implementation.
```


## IX. Undergraduate Degree Programs and Course Descriptions

## College of Business

The purpose of the College of Business at the Undergraduate level is to meet the needs of students in terms of education and preparation for productive and rewarding professional careers. This focus requires the College to be alert and responsive to the local, regional, and national needs of business, industry, and government. Since the needs of individuals and employers change over time, the educational program of the College also prepares the students to be adaptive in a changing society and business world. Theoretical concepts are blended with practical applications, and the geographic location of The University is used to advantage in interaction with Mexico.

## General Education Requirements as Applied in the College of Business

| English | ENG 1013, ENG 1023, |
| :--- | :--- |
|  | ENG 1043 |
| Foreign Language | 9 semester hours |
| History | 6 semester hours |
| Political Science | 6 semester hours |
| Mathematics | MAT 1011, MAT 1022, |
|  | MAT 1031, MAT 1051, |
|  | MAT 1062 |
| Computer Science | CS 1043 |
| Fine and Applied Arts | 3 semester hours |Group A Elective3 semester hours

EnglishForeign Languages
Classics
Communications
Comparative Studies in the Humanities
Humanities
Linguistics
Philosophy
Architectural Design
Art
Art History and Criticism
Music
Group B Elective 3 semester hours
Applied, Biological,Physical, and EarthSciences (includingAstronomy)
Mathematics, Computer
Science and SystemsDesign
Library Study ..... LIB 1001

## DIVISION OF ACCOUNTING AND BUSINESS DATA SYSTEMS

The Division of Accounting and Business Data Systems is responsible for preparing students majoring in this area for careers in business and government. The courses have been planned to give students the necessary academic training for the design and implementation of data information systems. Students who major in the Division of Accounting and Business Data Systems are prepared to accept responsibilities professionally and to be aware of their responsibilities to society. Concentrations are offered in: (1) Accounting and (2) Business Data Systems.

## BACHELOR OF BUSINESS ADMINISTRATION <br> DEGREE IN ACCOUNTING WITH A CONCENTRATION IN ACCOUNTING

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, ${ }^{1}$ is 128

All candidates for the degree must complete:
A. 24 semester hours in the major, 18 of which must be at the upper-division level.

1. 21 semester hours of required courses are:

ACC 2013 Fundamentals of Accounting I
ACC 2023 Fundamentals of Accounting II
ACC 3013 Managerial Accounting and Cost Controls
ACC 3023 Intermediate Accounting I
ACC 3033 Intermediate Accounting II
ACC 3043 Federal Income Tax Accounting
ACC 4013 Principles of Auditing
2. 3 additional semester hours are required in accounting, as approved by the student's Advisor.

[^26]B. 39 semester hours of support work, 30 of which must be at the upper-division level.

1. 36 semester hours of required courses are:

BLW 3013 Business Law
BLW 3023 Business Organizations and Commercial Law
ECO 2013 The National Economy in Theory and Policy
ECO 2023 Economics of Administrative and Consumer Decisions
ECO 3033 Economics of the Firm
FIN 3013 The Finance Function
MGT 3013 Organization and Management Theory
MGT 3023 Organizational Behavior
MGT 3033 Quantitative Decision Analysis and Production
MGT 3043 Business Communications
MGT 4893 Business Policies and Management
MKT 3013 Principles of Marketing
2. 3 semester hours are required in anthropology, sociology, or psychology.
C. 15 semester hours of free electives, of which 9 must be at the upper-division level.

## BACHELOR OF BUSINESS ADMINISTRATION DEGREE IN ACCOUNTING WITH A CONCENTRATION IN BUSINESS DATA SYSTEMS

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements ${ }^{2}$ is 128.

All candidates for the degree must complete:
A. 24 semester hours in the major, 12 of which must be at the upper-division level.

1. 18 semester hours of required courses are:

ACC 2013 Fundamentals of Accounting I
ACC 2023 Fundamentals of Accounting II
ACC 3013 Managerial Accounting and Cost Controls
BDS 3043 Business-Oriented Computer Languages
BDS 3053 Business Systems Analysis
BDS 3063 Data Structures and Information Retrieval
2. 6 additional semester hours are required in business data systems or in mathematics, as approved by the student's Advisor.
B. 39 semester hours of support work, 30 of which must be at the upper-division level.

1. 36 semester hours of required courses are:

BLW 3013 Business Law
BLW 3023 Business Organizations and Commercial Law
ECO 2013 The National Economy in Theory and Policy
ECO 2023 Economics of Administrative and Consumer Decisions

[^27]ECO 3033 Economics of the Firm
FIN 3013 The Finance Function
MGT 3013 Organization and Management Theory
MGT 3023 Organizational Behavior
MGT 3033 Quantitative Decision Analysis and Production
MGT 3043 Business Communications
MGT 4893 Business Policies and Management
MKT 3013 Principles of Marketing
2. 3 semester hours of required electives are to be selected in anthropology, sociology, or psychology.
C. 15 semester hours of free electives, of which 9 must be at the upper-division level.

## COURSE DESCRIPTIONS

ACCOUNTING
(ACC)

## 2013 FUNDAMENTALS OF ACCOUNTING 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.
2023 FUNDAMENTALS OF ACCOUNTING II
(3-0) 3 hours credit. Prerequisite: ACC 2013.
A continuation of Fundamentals of Accounting I, with an introduction to the concepts of accounting for planning and control and the measurement of internal performance.
3013 MANAGERIAL ACCOUNTING AND COST CONTROLS
(3-0) 3 hours credit. Prerequisite: ACC 2023.
An in-depth study of cost accounting and managerial controls which provide data for planning and controlling routine manufacturing operations, long-range planning, inventory valuation and income determination.
3023 INTERMEDIATE ACCOUNTING I
(3-0) 3 hours credit. Prerequisite: ACC 2023.
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 ACCOUNTING II
(3-0) 3 hours credit. Prerequisite: ACC 3023.
A continuation of the study of accounting theory and concepts of Intermediate Accounting I.
3043 FEDERAL INCOME TAX ACCOUNTING
(3-0) 3 hours credit. Prerequisite: ACC 2023.
Fundamentals of federal income tax accounting, with emphasis on individual income tax; income inclusions and exclusions and statutory deductions in computing tax liability.
3053 PROPERTY TRANSACTIONS AND PARTNERSHIP TAX (3-0) 3 hours credit. Prerequisite: ACC 3043.
A study of property transactions, basis, gains and losses, depreciation recapture, and partnership taxation.
4013 PRINCIPLES OF AUDITING
(3-0) 3 hours credit. Prerequisite: ACC 3023.
A study of public accounting, auditing theory, professional ethics and auditing procedures and problems. The development of audit programs, evidential matter and professional reports.
4023 COST ANALYSIS
(3-0) 3 hours credit. Prerequisite: ACC 3013.
A study of advanced cost accounting systems, variance analysis, cost-volume-profit relationships, capital budgeting and relevant costs.

## 4033 ADVANCED ACCOUNTING I

(3-0) 3 hours credit. Prerequisite: 15 semester hours of accounting. A study of specialized areas of accounting, including partnerships, estates and trusts, corporate liquidations and business combinations.

4043 CONSOLIDATED STATEMENTS AND
INTERNATIONAL ACCOUNTING
(3-0) 3 hours credit. Prerequisite: 15 semester hours of accounting. A study of the principles of consolidated financial statements and the accounting problems of multi-national corporations.
4053 ACCOUNTING FOR GOVERNMENTAL AND NOT-FOR-PROFIT ORGANIZATIONS
(3-0) 3 hours credit. Prerequisite: 15 semester hours of accounting. A study of accounting, budgeting, fiscal procedures and financial records of governmental agencies and private not-for-profit organizations.
4073 TAX RESEARCH METHODS
(3-0) 3 hours credit. Prerequisite: ACC 4153.
A study of tax research methods and materials and the history of the Internal Revenue Code. Collection and appeals procedures in the Internal Revenue Service.
4083 BUDGETING, PLANNING AND FORECASTING
(3-0) 3 hours credit. Prerequisite: 15 semester hours of accounting. A study of the techniques of long-range budgeting, including methods and limits of accounting models used in forecasting.
4153 CORPORATE TAXATION
(3-0) 3 hours credit. Prerequisite: ACC 3053 or consent of instructor.
Taxation of corporate earnings, distributions, reorganizations, liquidations, personal holding companies, collapsible corporations and Subchapter S.
4163 FEDERAL TAX PROCEDURES
(3-0) 3 hours credit. Prerequisite: ACC 3043.
Organization of the Internal Revenue Service, audit problems, district and appellate conferences, assessments, collections, refunds, civil penalties and tax crimes.

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.

## 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.
4933 INTERNSHIP IN ACCOUNTING
49363 or 6 hours credit. Prerequisite: 15 semester hours in accounting. To provide students with knowledge gained through experiential activities in professional life. Joint cooperation with business and governmental institutions in structuring and monitoring work experience aimed at supplementing the classroom learning process.
4953 SPECIAL STUDIES IN ACCOUNTING
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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 BUSINESS DATA SYSTEMS (BDS)

## 3013 ACCOUNTING INFORMATION SYSTEMS

(3-0) 3 hours credit. Prerequisites: ACC 2023 and CS 1043 or their equivalent.
An in-depth study of computer use in accounting systems. Payroll systems, accounts receivable, accounts payable, inventory accounting, tax, general ledger, financial statements, cost and budget analysis.
3023 COMPUTER APPLICATIONS IN MARKETING
(3-0) 3 hours credit. Prerequisites: MKT 3013 and CS 1043 or their equivalent.
Projects utilizing the computer in collection, reduction, and analysis of marketing information.
3033 COMPUTER APPLICATIONS IN FINANCE
(3-0) 3 hours credit. Prerequisites: FIN 3013 and CS 1043 or their equivalent.
Projects in computer applications to stock and bond market analysis, real estate analysis, financial statement analysis, and other forms of financial analysis.
3043 BUSINESS-ORIENTED COMPUTER LANGUAGES
(3-0) 3 hours credit. Prerequisite: CS 1043.
Special purpose computer languages such as COBOL and RPG. The development of program logic, file description, input, calculation, and output of practical business-oriented problems on computer systems.
3053 BUSINESS SYSTEMS ANALYSIS
(3-0) 3 hours credit. Prerequisite: BDS 3043.
Case studies in management information, financial and cost accounting, inventory, personnel, and other business functions,
emphasizing problem definition, data gathering, analysis, synthesis, specification, development, documentation, and implementation.
3063 DATA STRUCTURES AND INFORMATION RETRIEVAL (3-0) 3 hours credit. Prerequisite: BDS 3053.
Techniques of designing and implementing data management systems including file organization, file maintenance, retrieval and display selection of computer systems, and data structures.
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.
4933 INTERNSHIP IN BUSINESS DATA SYSTEMS
49363 or 6 hours credit. Prerequisite: 12 hours of upper-division work in accounting or business data systems.
To provide students with knowledge gained through experiential activities in professional life. Joint cooperation with business and governmental institutions in structuring and monitoring work experience aimed at supplementing the classroom learning process.
4953 SPECIAL STUDIES IN BUSINESS DATA SYSTEMS
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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.

## DIVISION OF ECONOMICS AND FINANCE

The Division of Economics and Finance provides undergraduate study leading to both the B.B.A. and the B.A. degrees in Economics and the B.B.A. in Finance. The primary academic objective of the Division at the undergraduate level is the development of programs, courses, and internships which give students an opportunity to acquire aptitudes and perceptions necessary in a dynamic and increasingly complex social and physical environment. The courses and experiences offered are intended to build recognizable and practical skills while expanding the intellectual flexibility of the individual. Programs in the Division have been designed with numerous options that allow the student to discover specific areas of interest. The alternatives offered are especially relevant to the geographic area served by The University, since economic development, trade, and finance are important for understanding both regional and international problems of the Southwest.

## BACHELOR OF BUSINESS ADMINISTRATION DEGREE IN ECONOMICS

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, ${ }^{3}$ is 128.

All candidates for the degree must complete:
A. 27 semester hours in the major, 21 of which must be at the upper-division level.

1. 15 semester hours of required courses are:

ECO 2013 The National Economy in Theory and Policy

[^28]ECO 2023 Economics of Administrative and Consumer Decisions
ECO 3033 Economics of the Firm
ECO 3053 Aggregate Economic Analysis
ECO 3113 Introduction to Mathematical Economics
2. 12 additional semester hours are required in economics, as approved by the student's Advisor.
B. 36 semester hours of support work, 24 of which must be at the upper-division level.

1. 27 semester hours of required courses are:

ACC 2013 Fundamentals of Accounting I
ACC 2023 Fundamentals of Accounting II
ACC 3013 Managerial Accounting and Cost Controls
BLW 3013 Business Law or
ECO 3213 Government Regulation of Industry
FIN 3013 The Finance Function
MGT 3013 Organization and Management Theory
MGT 3043 Business Communications
MGT 4893 Business Policies and Management
MKT 3013 Principles of Marketing
2. 9 semester hours of required electives are to be selected as follows:

3 additional semester hours in the College of Business; 3 semester hours in anthropology, sociology, or psychology;
3 additional semester hours of social science electives.
C. 15 semester hours of free electives, of which 9 must be at the upper-division level.

## BACHELOR OF ARTS DEGREE IN ECONOMICS

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, ${ }^{4}$ is $125 .{ }^{5}$

All candidates for the degree must complete:
A. 27 semester hours in the major, 21 of which must be at the upper-division level.

1. 15 semester hours of required courses are:

ECO 2013 The National Economy in Theory and Policy
ECO 2023 Economics of Administrative and Consumer Decisions
ECO 3013 Theory of Price
ECO 3053 Aggregate Economic Analysis
ECO 3113 Introduction to Mathematical Economics
2. 12 additional semester hours are required in economics, as approved by the student's Advisor.
B. 21 semester hours of support work.

1. 3 semester hours of ACC 2013 FUNDAMENTALS OF ACCOUNTING I is required.
2. 18 semester hours of required electives are to be selected as follows:

6 additional semester hours in the College of Business;
3 semester hours in anthropology, sociology or psychology;
9 additional semester hours of social science electives.
C. 27 semester hours of free electives, but no more than 9 semester hours of this group may be in additional economics courses.

[^29]
## COURSE DESCRIPTIONS ECONOMICS <br> (ECO)

## 2013 THE NATIONAL ECONOMY IN THEORY AND POLICY

 (3-0) 3 hours credit.Economic analysis at the national level, including the determination of aggregate income and employment, operation of the monetary system, short-term income fluctuations, long-term income growth, public policy toward business, and problems of international trade and finance.

## 2023 ECONOMICS OF ADMINISTRATIVE AND CONSUMER

 DECISIONS(3-0) 3 hours credit.
The application of economic theory to decision-making by consumers and administrators; demand and cost analysis (including demand forecasts); price policy of the individual firm; production analysis; cost-benefit analysis for the public sector.

## 3013 THEORY OF PRICE

(3-0) 3 hours credit. Prerequisites: ECO 2013, 2023; MAT 1022, or their equivalent.
Operations of individual markets; market structure; theory of the firm; theory of production; demand theory; general equilibrium and welfare economics.

## 3033 ECONOMICS OF THE FIRM

(3-0) 3 hours credit. Prerequisites: ECO 2013, 2023; MAT 1022, or their equivalents.
Review and extension of micro and macroeconomic analysis with applications in the area of administration problems; analysis of market systems and firm behavior; introduction to linear programming and capital budgeting; examination of public and private decision making and economic issues.
3053 AGGREGATE ECONOMIC ANALYSIS
(3-0) 3 hours credit. Prerequisites: ECO 2013 and ECO 2023 or their equivalents.
Analysis of the measurement, determination, and control of aggregate economic activity; the monetary system in relation to income and employment; short-term income fluctuations; longterm growth.
3113 INTRODUCTION TO MATHEMATICAL ECONOMICS
(3-0) 3 hours credit. Prerequisite: ECO 3013 or ECO 3033 or the equivalent.
Mathematical formulation of economic theory, mathematical treatment of optimizing behavior; applications to consumer and business firm theory; value, economic strategies, growth and stability; emphasis on understanding of analytical techniques.
3123 ECONOMETRICS
(3-0) 3 hours credit. Prerequisite: ECO 3113 or the equivalent.

Introduction to measurement in economics; numerical evaluation of mathematical models by statistical methods; survey of classical models; scope and method of econometric analysis.
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; emphasis on institutional forces shaping the continuum of economic thinking.
3173 COMPARATIVE ECONOMIC SYSTEMS
(3-0) 3 hours credit.
Analysis of alternative economic systems of the industrialized and emerging nations; emphasis on the comparative study of the capitalist, socialist, and the communist economic systems of the modern world.

3183 ECONOMIC DEVELOPMENT OF THE UNITED STATES (3-0) 3 hours credit. Prerequisite: ECO 2013 or ECO 2023 or the 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 or ECO 2023 or the equivalent, or consent of instructor.
Principles of international trade; significance of geographic, economic, social and political influences; current problems in international trade and payments; tariffs and commercial policy; role of international organizations.

## 3213 GOVERNMENT REGULATION OF INDUSTRY

(3-0) 3 hours credit. Prerequisite: ECO 2023 or the equivalent, or consent of instructor.
A study of competition enforced by law, including the legal, social, and economic aspects of mergers, pricing policies, monopolization and market concentration.

3273 PUBLIC CHOICE AND THE PUBLIC FINANCES
(3-0) 3 hours credit. Prerequisite: ECO 3013 or ECO 3033 or the equivalent.
Analysis of administrative and legislative decisions applicable to public goods and services; government expenditure policy, sources of revenue; public credit; fiscal policy, principles and methods of taxation and financial administration.

3283 LABOR ECONOMICS AND COLLECTIVE BARGAINING (3-0) 3 hours credit. Prerequisite: ECO 2013 or ECO 2023 or the equivalent, or consent of instructor.
Economic problems and issues of trade union organization and wage theory; job security, hours, working conditions; labor legislation, unemployment, and discrimination.

## 3303 THEORIES OF ECONOMIC PROGRESS

(3-0) 3 hours credit. Prerequisite: ECO 2013 or the equivalent, or consent of instructor.
Dynamics of economic progress and change in industrialized and under-industrialized countries of the modern world; historical theories of growth; empirical case studies; formulation of development projects and programs.

## 3403 ECONOMIC ASPECTS OF URBANIZATION

(3-0) 3 hours credit. Prerequisite: ECO 2013 or ECO 2023 or the equivalent.
Application of economic analysis to urban growth and the urbanregional environment; consideration of public services, transportation, ghetto problems, and urban organization; analysis of environmental protection problems and policies.

## 4273 ENVIRONMENTAL ECONOMICS

(3-0) 3 hours credit. Prerequisite: ECO 3013 or ECO 3033 or the equivalent, or consent of instructor.
Economic principles applied to environmental problems; relationship of market and nonmarket forces to environmental quality; development of tools for policy analysis.
4283 MANPOWER ECONOMICS: PROBLEMS AND PROGRAMS (3-0) 3 hours credit. Prerequisite: ECO 3013 or ECO 3033 or the equivalent.
Economics of human resource development; examination of programs for training and upgrading of workers; barriers to skill development and job entry; formulation of public policies on human resources.

## 4293 ECONOMICS OF DISCRIMINATION AND POVERTY

(3-0) 3 hours credit. Prerequisite: ECO 3013 or ECO 3033 or the 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 EMERGING NATIONS

(3-0) 3 hours credit. Prerequisite: ECO 2013 or the equivalent, or consent of instructor.
Specific economic problems of emerging nations and national groupings; basic approaches to economic development; major proposals for accelerating development; role of planning; trade, aid and economic integration.

## 4313 MONETARY THEORY AND POLICY (3-0) 3 hours credit. Prerequisites: ECO 3053 and FIN 3313 or their equivalents.

Relationship of money and interest rate to economic stabilization; consideration of federal reserve system, money market, and factors determining money supply and demand; neo-Keynesian, Chicago, and radical policy views.
4363 THE LATIN AMERICAN ECONOMIES
(3-0) 3 hours credit. Prerequisite: ECO 2013 or the equivalent. Survey of economic status and problems of Latin American nations; analysis of economic and social forces at work in Latin American development. (When offered in Spanish, course schedule will so indicate.)
4463 MEDICAL AND HEALTH ECONOMICS
(3-0) 8 hours credit. Prerequisite: ECO 3013 or ECO 3033 or the 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; national priorities and policy for health service delivery.

4493 ECONOMICS OF THE TRANSPORTATION INDUSTRY (3-0) 3 hours credit. Prereqisite: ECO 3013 or ECO 3033 or the equivalent.
Economic analysis applied to specific problems of transport. Effects of location and transportation cost on firm behavior; public regulation and policy; capacity, rate structure, service areas; problems of urban mass transportation.

## 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.

## 4933 INTERNSHIP IN ECONOMICS

49363 or 6 hours credit. Prerequisite: 12 hours of upper-division economics.
Work experience in research or applied economics; may be undertaken either in private business or a public agency; opportunicies developed in consultation with faculty Advisor and Division Director and require approval of both.

## 4953 SPECIAL STUDIES IN ECONOMICS

(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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.

## BACHELOR OF BUSINESS ADMINISTRATION DEGREE IN FINANCE

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, ${ }^{6}$ is 128.

All candidates for the degree must complete:
A. 18 semester hours in the major, all of which must be at the upper-division level.

1. 9 semester hours of required courses are:

FIN 3013 The Finance Function
FIN 3033 Principles of Investment FIN 3313 Money and Capital Markets
2. 9 additional semester hours are required in finance, as approved by the student's Advisor.
B. 45 semester hours of support work, 30 of which must be at the upper-division level.

1. 39 semester hours of required courses are:

ACC 2013 Fundamentals of Accounting I
ACC 2023 Fundamentals of Accounting II
ACC 3013 Managerial Accounting and Cost Controls
BLW 3013 Business Law or
ECO 3213 Government Regulation of Industry
ECO 2013 The National Economy in Theory and Policy
ECO 2023 Economics of Administrative and Consumer Decisions
ECO 3033 Economics of the Firm
MGT 3013 Organization and Management Theory
MGT 3023 Organizational Behavior
MGT 3033 Quantitative Decision Analysis and Production
MGT 3043 Business Communications
MGT 4893 Business Policies and Management

[^30]MKT 3013 Principles of Marketing
2. 6 semester hours of required electives are to be selected as follows:

3 additional semester hours in the College of Business; 3 semester hours in anthropology, sociology, or psychology.
C. 15 semester hours of free electives, of which 9 must be at the upper-division level.

## COURSE DESCRIPTIONS

## FINANCE

(FIN)

## 3013 THE FINANCE FUNCTION

(3-0) 3 hours credit. Prerequisites: ACC 2023 and MAT 1022 or their equivalent.
Introduction to analytical financial management with emphasis on the management of the short-term uses and sources of funds; capital investment and management of long-term sources.

## 3033 PRINCIPLES OF INVESTMENT

(3-0) 3 hours credit. Prerequisite: FIN 3013 or the equivalent. Introduction to securities markets; analysis of securities issued by corporations in various industries by intermediaries, and by federal, state, and municipal governments; investment management in the light of tax considerations, timing, and selected portfolio needs.
3313 MONEY AND CAPITAL MARKETS
(3-0) 3 hours credit. Prerequisite: ECO 2013 or the equivalent.
Elements of monetary theory; relationships between money, prices, production and employment; factors determining money supply; operation of capital markets with reference to the United States.

## 3403 CASES IN FINANCIAL MANAGEMENT

(3-0) 3 hours credit. Prerequisite: FIN 3013 or the equivalent. Advanced analysis of financial cases based on actual business problems and the application of financial theory and technique are used to illustrate the process required to formulate financial decisions.
3413 MANAGEMENT OF FINANCIAL INSTITUTIONS
(3-0) 3 hours credit. Prerequisite: FIN 3313 or the equivalent. Analysis of financial management principles, theories, and techniques as they apply to the peculiarities of the financial firm; emphasis on asset and liability management in a changing environment of regulation, competition and financial intermediation.

## 3423 SECURITY ANALYSIS

(3-0) 3 hours credit. Prerequisite: FIN 3033 or the equivalent. Advanced financial analysis: examination of statements and supplementary data of industrial, commercial, financial intermediary, and public utility enterprises; preparation of reports relevant to achieving an understanding of financial management policies.

## 4313 COMMERCIAL BANK MANAGEMENT

(3-0) 3 hours credit. Prerequisite: FIN 3313 or the equivalent. Direction and coordination of the various functions of the commercial bank, including money position, lending, capital management, trust and auxiliary functions.
4323 FINANCIAL MARKETS
(3-0) 3 hours credit. Prerequisite: FIN 3413 or the equivalent.
Theory and analysis of equilibrium in the financial markets and the changing structure of financial intermediation; capital asset pricing, efficient markets, portfolio theory, direct and indirect finance, disintermediation competition, structural reform.
4403 CAPITAL STRUCTURE AND BUDGETING
(3-0) 3 hours credit. Prerequisite: FIN 3403 or the 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 the equivalent. Application of investment principles to management of investment portfolios of individuals and institutions; consideration of business cycles, investment constraints, portfolio construction, investment timing, and securities selection.

4523 MANAGEMENT OF RISK
(3-0) 3 hours credit. Prerequisite: FIN 3033 or the equivalent. Application and evaluation of quantitative tools of analysis in the risk-management decision process; nature of risk and riskaversion; insurance as a major mechanism for spreading risk.
4543 FINANCE OF NON-PROFIT ORGANIZATIONS
(3-0) 3 hours credit. Prerequisite: FIN 3013 or the equivalent.
Types of non-profit organizations and their functions; budget development and income generation; the decision process in the provision of services; analytical approaches in managerial finance of non-profit institutions.

## 4563 HOSPITAL FINANCIAL MANAGEMENT

(3-0) 3 hours credit. Prerequisite: FIN 3013 or the equivalent.
The special problems of financial management of health care delivery systems, medical insurance programs, and health maintenance organizations; issues in fund-raising; application of costbenefit analysis to situations concerning human life and welfare.

## 4613 INTRODUCTION TO INTERNATIONAL FINANCE

(3-0) 3 hours credit. Prerequisite: FIN 3013 or the equivalent. Study of underlying forces in international financial relations and the unique problems of international trade, investments, and operations; examination of multi-national 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 FIN 3313 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.

4723 URBAN LAND ACQUISITTON AND DEVELOPMENT (3-0) 3 hours credit. Prerequisite: FIN 4713 or the equivalent. Examination of urban real estate and its planning; implications of institutional-legal constraints; economic considerations in land use; financial strategies; relationship of land use to quality of the urban environment.

4813 THE INSURANCE FUNCTION
(3-0) 3 hours credit. Prerequisite: FIN 3013 or the equivalent.
Analysis of insurance as a principal method of handling risk; types of insurance and contracts; determinants of premiums and resources; applicable legal principles.
4823 FINANCING INSURANCE OPERATIONS
(3-0) 3 hours credit. Prerequisite: FIN 3013 or the equivalent.
Organization of insurance enterprises and related businesses; examination of underwriting function and practices; coverage supplied by the individual firm; insurance company investments and their 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, regardles. of discipline, will apply to a bachelor's degree.
4933 INTERNSHIP IN FINANCE
49363 or 6 hours credit. Prerequisite: 12 hours of upper-division finance.
Work experience in research of financial operations, including real estate and insurance; may be undertaken in either private business or a public agency; opportunities developed in consultation with faculty Advisor and Division Director and requires approval of both.

4953 SPECIAL STUDIES IN FINANCE
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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.
4973 PROSEMINAR IN FINANCIAL THEORY
(3-0) 3 hours credit. Prerequisite: FIN 3403 or consent of instructor.
Examination of the recent theoretical developments in the various areas of finance. Analysis will focus on the techniques and procedures by which new theoretical developments evolve. A seminar approach will be used to provide a high degree of studentinstructor interaction.

## COURSE DESCRIPTIONS <br> BUSINESS LAW <br> (BLW)

3013 BUSINESS LAW
(3-0) 3 hours credit.
Origin and development of law, judicial procedure, tort law, contracts, and wills, with emphasis on consumer-business rights and responsibilities.
3023 BUSINESS ORGANIZATIONS AND COMMERCIAL LAW
(3-0) 3 hours credit. Prerequisite: BLW 3013 or the equivalent. Agency, partnership, corporations, sales, commercial paper, creditors rights and secured transactions under the Uniform Commercial Code.
3523 REAL ESTATE LAW
(3-0) 3 hours credit. Prerequisite: BLW 3013 or the 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.

## DIVISION OF MANAGEMENT

The Bachelor of Business Administration Degree in Management is designed for those who desire a broad undergraduate preparation in business. The flexibility of the curricula makes it possible for students to be prepared to pursue a variety of managerial careers. Specific options assist the student to prepare for positions in both the private and public sector. Concentrations are offered in: (1) Business Management; (2) Industrial Management; (3) Marketing Management; and (4) Personnel Management.

## BACHELOR OF BUSINESS ADMINISTRATION DEGREE IN MANAGEMENT WITH A CONCENTRATION IN BUSINESS MANAGEMENT

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, ${ }^{7}$ is 128 .

All candidates for the degree must complete:
A. 21 semester hours in the major, all of which must be at the uppper-division level.

1. 15 semester hours of required courses are:

MGT 3013 Organization and Management Theory
MGT 3023 Organizational Behavior
MGT 3033 Quantitative Decision Analysis and Production
MGT 3043 Business Communications MGT 4893 Business Policies and Management
2. 6 additional semester hours are required in management, as approved by the student's Advisor.

[^31]B. 42 semester hours of support work, 27 of which must be at the upper-division level.

1. 33 semester hours of required courses are:

ACC 2013 Fundamentals of Accounting I
ACC 2023 Fundamentals of Accounting II
ACC 3013 Managerial Accounting and Cost Controls
ACC 3023 Intermediate Accounting I
BLW 3013 Business Law or
ECO 3213 Government Regulation of Industry
ECO 2013 The National Economy in Theory and
ECO 2023 Economics of Administrative and Consumer Decisions
ECO 3033 Economics of the Firm
ECO 3053 Aggregate Economic Analysis
FIN 3013 The Finance Function
MKT 3013 Principles of Marketing
2. 9 semester hours of required electives are to be selected as follows:

3 additional semester hours in finance;
3 additional semester hours in marketing;
3 semester hours in anthropology, sociology, or psychology.
C. 15 semester hours of free electives, of which 9 must be at the upper-division level.

## BACHELOR OF BUSINESS ADMINISTRATION DEGREE IN MANAGEMENT WITH A CONCENTRATION IN INDUSTRIAL MANAGEMENT

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, ${ }^{8}$ is 128.

All candidates for the degree must complete:
A. 18 semester hours in the major, all of which must be at the upper-division level.

1. 15 semester hours of required courses are:

MGT 3033 Quantitative Decision Analysis and Production
MGT 3343 Production Management Applications
MGT 3333 Management Information Systems
MGT 3353 Logistics Management
MGT 4603 Advanced Logistics
or
MGT 3033 Quantitative Decision Analysis and Production
MGT 3343 Production Management Applications MGT 3313 Statistical Applications in Business MGT 3323 Simulation Applications in Business MGT 4593 Advanced Quantitative Decision Analysis
2. 3 additional semester hours in management, as approved by the student's Advisor.
B. 45 semester hours of support work, 30 of which must be at the upper-division level.

[^32]1. 39 semester hours of required courses are:

ACC 2013 Fundamentals of Accounting I
ACC 2023 Fundamentals of Accounting II
ACC 3013 Managerial Accounting and Cost Controls
BLW 3013 Business Law or
ECO 3213 Government Regulation of Industry
ECO 2013 The National Economy in Theory and Policy
ECO 2023 Economics of Administrative and Consumer Decisions
ECO 3033 Economics of the Firm
FIN 3013 The Finance Function
MGT 3013 Organization and Management Theory
MGT 3023 Organizational Behavior
MGT 3043 Business Communications
MGT 4893 Business Policies and Management
MKT 3013 Principles of Marketing
2. 6 semester hours of required electives are to be selected as follows:

3 additional semester hours in the College of Business;
3 semester hours in anthropology, sociology, or psychology.
C. 15 semester hours of free electives, of which 9 must be at the upper-division level.

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

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, ${ }^{9}$ is 128.

All candidates for the degree must complete:
A. 18 semester hours in the major, all of which must be at the upper-division level.

1. 15 semester hours of required courses are:

MKT 3013 Principles of Marketing
MKT 3033 Principles of Promotion
MKT 3113 Retailing or
MKT 3123 Wholesaling
MKT 4083 Marketing Research
MKT 4893 Advanced Marketing
2. 3 additional semester hours are required in marketing, as approved by the student's Advisor.
B. 45 semester hours of support work, 30 of which must be at the upper-division level.

1. 39 semester hours of required courses are:

ACC 2013 Fundamentals of Accounting I
ACC 2023 Fundamentals of Accounting II
ACC 3013 Managerial Accounting and Cost
Controls
BLW 3013 Business Law or
ECO 3213 Government Regulation of Industry
ECO 2013 The National Economy in Theory and Policy

[^33]ECO 2023 Economics of Administrative and Consumer Decisions
ECO 3033 Economics of the Firm
FIN 3013 The Finance Function
MGT 3013 Organization and Management Theory
MGT 3023 Organizational Behavior
MGT 3033 Quantitative Decision Analysis and Production
MGT 3043 Business Communications MGT 4893 Business Policies and Management
2. 6 additional semester hours of required electives are to be selected as follows:
3 additional semester hours in the College of Business; 3 semester hours in anthropology, sociology, or psychology.
C. 15 semester hours of free electives, of which 9 must be at the upper-division level.

# BACHELOR OF BUSINESS ADMINISTRATION DEGREE IN MANAGEMENT WITH A CONCENTRATION IN PERSONNEL MANAGEMENT 

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, ${ }^{10}$ is 128 .

All candidates for the degree must complete:
A. 18 semester hours in the major, all of which must be at the upper-division level.

1. 15 semester hours of required courses are:

MGT 3013 Organization and Management Theory
MGT 3613 Personnel Administration
MGT 3623 Wage and Salary Administration
MGT 4633 Labor Relations
MGT 4803 Human Resources Management
2. 3 additional semester hours in management, as approved by the student's Advisor.
B. 45 semester hours of support work, 30 of which must be at the upper-division level.

1. 39 semester hours of required courses are:

ACC 2013 Fundamentals of Accounting I
ACC 2023 Fundamentals of Accounting II
ACC 3013 Managerial Accounting and Cost Controls
BLW 3013 Business Law or
ECO 3213 Government Regulation of Industry
ECO 2013 The National Economy in Theory and Policy
ECO 2023 Economics of Administrative and Consumer Decisions
ECO 3033 Economics of the Firm

[^34]FIN 3013 The Finance Function
MGT 3023 Organizational Behavior
MGT 3033 Quantitative Decision Analysis and Production
MGT 3043 Business Communications
MGT 4893 Business Policies and Management
MKT 3013 Principles of Marketing
2. 6 semester hours of required electives are to be selected as follows:

3 additional semester hours in the College of Business; 3 semester hours in anthropology, sociology, or psychology.
C. 15 semester hours of free electives, of which 9 must be at the upper-division level.

COURSE DESCRIPTIONS
MANAGEMENT
(MGT)
3013 ORGANIZATION AND MANAGEMENT THEORY
(3-0) 3 hours credit.
Study of the various organizations and management theory (empirical, behavioral, quantitative) process. Builds base for identification analysis, and synthesis of managerial concepts as related to complex organizations.

## 3023 ORGANIZATIONAL BEHAVIOR

(3-0) 3 hours credit. Prerequisite: MGT 3013 or the equivalent: Behavioral theory and empirically-derived knowledge as it relates to the functioning of individuals, pairs, and groups in organizations. Investigation of organization as a complex of tasks, structures, tools, and people in states of continuous change.
3033 QUANTITATIVE DECISION ANALYSIS AND PRODUCTION (3-0) 3 hours credit. Prerequisites: MAT 1143, 1153, CS 1054, or their equivalents.
Basic techniques of decision analysis applied to problems in business and economics with an emphasis on production problems. Techniques include modeling and optimization of deterministic and non-deterministic systems in the applied areas of business and economics.
3043 BUSINESS COMMUNICATIONS
(3-0) 3 hours credit.
With the aim of developing business writing proficiency, the course stresses general techniques of report writing, report
organization and make-up, and graphic presentation and documentation. Special emphasis is given to the research methodology which precedes report preparation.
3123 ORGANIZATIONAL COMMUNICATIONS
(3-0) 3 hours credit. Prerequisites: MGT 3013 and MGT 3023 or their equivalents.
A course stressing the 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.

3183 ADMINISTRATIVE PROCESS
(3-0) 3 hours credit. Prerequisite: MGT 3013 or the equivalent.
Study of the functions of management including planning, organizing, staffing, directing, and controlling. Focus on integration of managerial functions in accomplishment of the administrative tasks under conditions of risk, uncertainty, and change.

3253 INTERPERSONAL COMMUNICATION
(3-0) 3 hours credit. Prerequisite: MGT 3043 or the equivalent. A course aimed at the 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 interaction is explored in terms of consequences on the communication process.

## 3313 STATISTICAL APPLICATIONS IN BUSINESS

(3-0) 3 hours credit. Prerequisites: ECO 2023 and MGT 3033 or their equivalents.
Examples and procedures for experimental design, data collection and display, data interpretation, hypothesis testing, and forecasting in business and economics systems.

## 3323 SIMULATION APPLICATIONS IN BUSINESS

(3-0) 3 hours credit. Prerequisites: FIN 3013 and MGT 3033 or their equivalents.
Examples of computer simulation in financial, marketing, management, and economic systems. Techniques for modeling and for analyzing models within business environments.
3333 MANAGEMENT INFORMATION SYSTEMS
(3-0) 3 hours credit. Prerequisites: MGT 3013 and MGT 3033 or their equivalents.
A study of the information needs of business and automated methods of acquiring, storing, updating, and retrieving useful information.

3343 PRODUCTION MANAGEMENT APPLICATIONS
(3-0) 3 hours credit. Prerequisites: MGT 3013 and MGT 3033 or their equivalents.
Applications of modeling and optimization techniques in inventory, production, and quality control with related considerations of reliability, maintenance, and transportation.

3353 LOGISTICS MANAGEMENT
(3-0) 3 hours credit. Prerequisite: MGT 3033 or the equivalent.
A study of procurement needs, acquisition methods, and transportation and distribution structures. Techniques for analysis of logistics system alternatives.

3613 PERSONNEL ADMINISTRATION
(3-0) 3 hours credit.
Policies and practices related to the design and administration of the personnel activity. Employee recruitment, selection, development, evaluation, and compensation given emphasis.

3623 WAGE AND SALARY ADMINISTRATION
(3-0) 3 hours credit. Prerequisite: MGT 3613 or the equivalent.
Development and administration of wage and salary programs for organizations. Emphasis upon objectives, policies, organization, and control of compensation systems.
4203 BUSINESS AND SOCIETY
(3-0) 3 hours credit. Prerequisite: Upper-division standing or consent of instructor.
A study of the impact of societal influences on the managerial decision-making process. Special attention given to businessgovernment relationships and the role of the organization in the community.

## 4213 ADVANCED ORGANIZATION THEORY

(3-0) 3 hours credit. Prerequisites: MGT 3013 and MGT 3023 or their equivalents.
Advanced study of the structure and process of organizations. Emphasis upon such topics as typologies of organizational complexity and formalization, communication and decision-making processes, and organizational development and change. Contingency views of organizations are stressed.
(3-0) 3 hours credit. Prerequisites: MGT 3013 and MGT 3023 or their equivalents.
Focus is on developmental processes of executive talent in organizations. Emphasis is placed on topics such as effects of stress, routes to the executive suite, socialization processes, managerial styles, the success ethic, career crises, and political realities in the organization.
4593 ADVANCED QUANTITATIVE DECISION ANALYSIS
(3-0) 3 hours credit. Prerequisites: MGT 3313, 3323, 3343, or their equivalents.
Detailed study of applications of quantitative decision analysis
to policy and planning systems. Designed to provide a comprehensive understanding of the state of the art in quantitative decision analysis techniques of use in developing effective and efficient management systems.

## 4603 ADVANCED LOGISTICS

(3-0) 3 hours credit. Prerequisites: MGT 3333, 3343, 3353, or their equivalents.
Detailed analysis of the management of logistics systems with specific focus on policy and planning considerations. Designed to provide a comprehensive understanding of the functional areas of logistics and the integration of these functions into an effective and efficient logistics system.

## 4633 LABOR RELATIONS

(3-0) 3 hours credit. Prerequisite: MGT 3613 or the 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 LABOR LAW

(3-0) 3 hours credit. Prerequisite: MGT 3613 or the equivalent. An analysis of historical and contemporary labor law in the United States. Integration of the evolution of labor law with the social and economic forces shaping the current labor-management environment.
4803 HUMAN RESOURCES MANAGEMENT
(3-0) 3 hours credit. Prerequisites: MGT 3613, 3623, 4633, or their equivalents.
Detailed analysis of the management of personnel systems with specific 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.
4863 ETHICAL AND SOCIAL ISSUES IN MANAGEMENT
(3-0) 3 hours credit. Prerequisite: Upper-division standing or consent of instructor.
Students challenged to order thought, values, and behavior in operational, directional, and constitutional contexts. Develops a moral frame of reference providing both individual and operational guidance contributing to social justice.

[^35]4893 BUSINESS POLICIES AND MANAGEMENT
(3-0) 3 hours credit. Prerequisite: Upper-division standing or consent of instructor.
Capstone integration of marketing, finance, accounting, production, procurement, personnel policies emphasized through case studies and business simulations.

## 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.

## 4933 INTERNSHIP IN MANAGEMENT

49363 or 6 hours credit. Prerequisite: 12 hours of upper-division management.
Work experience in research or financial operations, including real estate and insurance. May be undertaken in either private business or a public agency. Opportunities developed in consultation with faculty Advisor and Division Director and requires approval of both.

## 4953 SPECIAL STUDIES IN MANAGEMENT

(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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 MARKETING MANAGEMENT (MKT)

## 3013 PRINCIPLES OF MARKETING

(3-0) 3 hours credit.
Current practices and structure of markets. Analysis of functions, institutions, pricing, demand creation, costs, and legislation. Emphasis on current marketing activities.

## 3033 PRINCIPLES OF PROMOTION

(3-0) 3 hours credit. Prerequisite: MKT 3013 or the equivalent.
The nature and usefulness of promotion. Creation of demand, use of stimuli, promotional programs, media selection, setting the appropriation, analysis of effectiveness of promotion.

## 3043 MASS COMMUNICATIONS AND ADVERTISING

(3-0) 3 hours credit. Prerequisites: MKT 3013 and MKT 3033 or their equivalent.
A specialized course covering the theory and practice of advertising. The course stresses planning advertising strategy, developing advertising messages, selecting advertising media, and testing advertising effectiveness. Also, the course explores the theory and history of advertising, the social and economic aspects of advertising, and the problems of ethics and truth in advertising.

## 3053 SALES MANAGEMENT

(3-0) 3 hours credit. Prerequisite: MKT 3013 or the equivalent. Analysis of the major problems facing the marketing manager with particular emphasis on policy matters, product planning, distribution, pricing, sales promotion, organization, and management of sales force.
3063 SALESMANSHIP
(3-0) 3 hours credit. Prerequisite: MKT 3013 or the equivalent. Principles of modern salesmanship as applied to selling of tangibles and intangibles. A study of the salesperson in relation to the firm, the product, and the customers. Involves sales psychology and classroom demonstrations.
3073 TRANSPORTATION
(3-0) 3 hours credit. Prerequisite: MKT 3013 or the equivalent. Analysis of shipper's transportation needs and the transportation systems available; operation and regulation of rates and services by the Interstate Commerce Commission and state commissions.
3113 RETAILING
(3-0) 3 hours credit. Prerequisite: MKT 3013 or the equivalent. Analysis of store location, layout, promotion, buying, pricing, personnel management, credit, stock control. Particular emphasis on problems unique to retailing.

3123 WHOLESALING
(3-0) 3 hours credit. Prerequisite: MKT 3013 or the equivalent.
Analysis of modern wholesale and industrial marketing, including types of wholesale marketing institutions and the competitive positions of each. Emphasis on selecting efficient channels for marketing management.

## 4083 MARKETING RESEARCH

(3-0) 3 hours credit. Prerequisite: MKT 3013 or the equivalent.
Research techniques applied to problems of measuring sales potential; trading area measurement; image research; sources of data; product research used as a basis for making policy and strategy determination.

## 4093 CONSUMER BEHAVIOR

(3-0) 3 hours credit. Prerequisite: MKT 3013 or the equivalent.
An interdisciplinary approach to studying decision making as
it applies to the purchase of consumer goods. Attitudes of both consumer and marketing manager are considered to allow students to relate to both personal and professional aspects of the course content.

4103 CURRENT TOPICS IN MARKETING
(3-0) 3 hours credit. Prerequisite: MKT 3013 or the equivalent. 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.

4893 ADVANCED MARKETING
(3-0) 3 hours credit. Prerequisites: MKT 3033, 3113 or 3123, 4083, or their equivalent.
Detailed analysis of the management of marketing systems with specific focus on policy and planning considerations. Designed to provide a comprehensive understanding of the functional areas of marketing and the integration of these functions into an effective and efficient marketing system.

## 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.

## 4933 INTERNSHIP IN MARKETING

49363 or 6 hours credit. Prerequisite: 12 hours of upper-division marketing. Knowledge gained 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 developed in consultation with faculty Advisor and Division Director and requires approval of both.
4953 SPECIAL STUDIES IN MARKETING
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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.

## College of Fine and Applied Arts

The College of Fine and Applied Arts through its Divisions of Art and Design and Music provides the opportunity and preparation for students 1) to be proficient and creative in their respective fields in the fine and applied arts, 2) to carry out scholarship in the history of art and music, 3) to follow professional careers in architecture, 4) to be art and music teachers and 5) to enter into related fields of endeavor. These programs of study encourage creativity, professional preparation, and performance in art, architecture, and music as well as visual and aural awareness based on a study, analysis, and evaluation of works of art, architecture, and music.

Courses open to majors and non-majors are designed to acquaint students with the nature, function, process, and meaning of the visual and aural arts. This enables them to deal with the artistic as well as nonartistic aspects of their daily lives with intelligence and sensitivity.

## DIVISION OF ART AND DESIGN

The objectives of the Division of Art and Design are two-fold. First, the Division is responsible for educating students at the highest level in art and design. This entails imparting an awareness of the history of art and the pursuits of the scholar, the practice of art and the various shapes this can take, and instilling in the students a sense of the role of the arts and artists in a contemporary society. Second, the Division believes it should be an active force in the cultural life of the San Antonio community and that The University of Texas at San Antonio should be a center for the creative arts. All efforts are made to combine these two objectives within The University of Texas at San Antonio framework of endeavoring to reflect and serve the South Texas, Southwestern United States, and Latin American areas.

## BACHELOR OF FINE ARTS DEGREE IN ART AND DESIGN WITH A CONCENTRATION IN ART

The minimum number of semester hours required for the degree, including 50 hours of General Education Requirements, is 128.11

All candidates for the degree must complete:
A. 60 semester hours in studio art courses.

1. 18 semester hours of required courses are:

ART 1003 Design: Basic I
ART 1013 Design: Basic II
ART 1023 The Arts of Vision and Sound
ART 1213 Drawing: Basic I
ART 1223 Drawing: Basic II
ART 4923 Special Project in Art

[^36]2. 30 additional semester hours are required in upperdivision elective ART courses, 12 semester hours of which must be completed in one of the following specializations:

## Drawing

ART 3213 Drawing: Intermediate I
ART 3223 Drawing: Intermediate II
ART 4233 Drawing: Advanced I
ART 4243 Drawing: Advanced II
Painting
ART 3113 Painting: Intermediate I
ART 3123 Painting: Intermediate II
ART 4133 Painting: Advanced I
ART 4143 Painting: Advanced II
Photography
ART 3513 Photography: Intermediate I
ART 3523 Photography: Intermediate II
ART 4533 Photography: Advanced I
ART 4543 Photography: Advanced II
Sculpture
ART 3653 Sculpture: Intermediate I
ART 3663 Sculpture: Intermediate II
ART 4673 Sculpture: Advanced I
ART 4683 Sculpture: Advanced II
Ceramics
ART 3733 Ceramics: Intermediate I
ART 3743 Ceramics: Intermediate II
ART 4753 Ceramics: Advanced I
ART 4763 Ceramics: Advanced II
$\begin{aligned} & \text { Printmaking }{ }^{12} \\ & \text { Lithography } \\ & \text { ART } 3313 \text { Lithography: Basic } \\ & \text { ART } 3323 \text { Lithography: Intermediate } \\ & \text { ART 4333 } \text { Lithography: Advanced I } \\ & \text { ART } 4343 \text { Lithography: Advanced II }\end{aligned}$

[^37]ART 3413 Intaglio: Basic
ART 3423 Intaglio: Intermediate
ART 4433 Intaglio: Advanced I
ART 4443 Intaglio: Advanced II
3. 12 additional semester hours are required in studio art, as approved by the student's Advisor.
B. 15 semester hours of support work in Art History and Criticism, 3 of which must be at the upper-division level.
C. 3 semester hours of free electives.

## COURSE DESCRIPTIONS

## ART <br> (ART)

1003 DESIGN: BASIC I
(0-6) 3 hours credit.
Investigation of two-dimensional visual formulation.
1013 DESIGN: BASIC II
(0-6) 3 hours credit. Prerequisite: ART 1003 or consent of instructor.
Expansion of ART 1003, with emphasis on color and threedimensional form.

1023 THE ARTS OF VISION AND SOUND
(3-0) 3 hours credit.
An introduction to the multiple facets of creativity as they apply to the visual and aural arts. The creative process is examined from points of view of the historian, composer, artist, performer and architect.

1153 PAINTING FOR NON-ART MAJORS
(0-6) 3 hours credit.
May not be applied to a major in art.
An introduction to the fundamentals of painting.
May be repeated for credit.
1163 DRAWING FOR NON-ART MAJORS
(0-6) 3 hours credit.
May not be applied to a major in art.
An introduction to the fundamentals of drawing.
May be repeated for credit.
1173 PHOTOGRAPHY FOR NON-ART MAJORS
(0-6) 3 hours credit.
May not be applied to a major in art.

Techniques and basic methods of creative photography. Students are expected to provide their own cameras.
May be repeated for credit.
1183 CERAMICS FOR NON-ART MAJORS
(0-6) 3 hours credit.
May not be applied to a major in art.
An introduction to the techniques and concepts of ceramics. May be repeated for credit.
1192 THE MANUAL ARTS IN OCCUPATIONAL THERAPY I
(0-6) 2 hours credit.
Use of tools, equipment, and other materials commonly used in crafts. Designed for occupational therapy students.
1202 THE MANUAL ARTS IN OCCUPATIONAL THERAPY II (0-6) 2 hours credit.
Methods, techniques, and use of tools, equipment, and materials commonly used in crafts. Designed for occupational therapy students.

1213 DRAWING: BASIC I
(0-6) 3 hours credit.
Fundamental training in graphic articulation.
1223 DRAWING: BASIC II
(0-6) 3 hours credit. Prerequisite: ART 1003, ART 1213, or consent of instructor.
A continuation of ART 1213, with emphasis on the human figure.
2113 PAINTING: BASIC I
(0-6) 3 hours credit. Prerequisite: ART 1013, 1223, or consent of instructor.
Instruction in composition, color therapy and the materials and techniques of painting.
2123 PAINTING: BASIC II
(0-6) 3 hours credit. Prerequisite: ART 2113 or consent of instructor.
A continuation of ART 2113.
2233 DRAWING: BASIC III
(0-6) 3 hours credit. Prerequisite: ART 1013, ART 1223, or consent of instructor.
The investigation of drawing concepts, structure, and media.
2243 DRAWING: BASIC IV
(0-6) 3 hours credit. Prerequisite: ART 2233 or consent of instructor.
A continuation and refinement of ART 2233 with emphasis on the development of individual imagery.
2513 PHOTOGRAPHY: BASIC I
(0-6) 3 hours credit. Prerequisite: ART 1013, ART 1223, or consent of instructor.
Introduction to the aesthetics of photographic vision and to dark-
room techniques. Students are expected to provide their own cameras.

2523 PHOTOGRAPHY: BASIC II
(0-6) 3 hours credit. Prerequisite: ART 2513 or consent of instructor.
A continuation of ART 2513. Students are expected to provide their own cameras.
2613 SCULPTURE: BASIC I
(0-6) 3 hours credit. Prerequisite: ART 1013, ART 1223, or consent of instructor.
Instruction in basic sculptural concepts and materials.
2623 SCULPTURE: BASIC II
(0-6) 3 hours credit. Prerequisite: ART 2613 or consent of instructor.
A continuation of ART 2613.
2713 CERAMICS: BASIC I
(0-6) 3 hours credit. Prerequisite: ART 1013, ART 1223, or consent of instructor.
Instruction in basic ceramic concepts and techniques.
2723 CERAMICS: BASIC II
(0-6) 3 hours credit. Prerequisite: ART 2713 or consent of instructor.
A continuation of ART 2713.
3113 PAINTING: INTERMEDIATE I
(0-6) 3 hours credit. Prerequisite: ART 2123, ART 2233 or consent of instructor.
Concepts and methods of painting with an emphasis on the synthesis of idea and means.

3123 PAINTING: INTERMEDIATE II
(0-6) 3 hours credit. Prerequisite: ART 3113 or consent of instructor.
A continuation and refinement of ART 3113.
3213 DRAWING: INTERMEDIATE I
(0-6) 3 hours credit. Prerequisite: ART 2243 or consent of instructor.
Concepts and methods of drawing with an emphasis on the synthesis of idea and means.
3223 DRAWING: INTERMEDIATE II
(0-6) 3 hours credit. Prerequisite: ART 3213 or consent of instructor.
A continuation and refinement of ART 3213.
3313 LITHOGRAPHY: BASIC
(0-6) 3 hours credit. Prerequisite: ART 2243 or consent of instructor.
Concepts and methods of lithography with emphasis on black and white image formation.

LITHOGRAPHY: INTERMEDIATE
(0-6) 3 hours credit. Prerequisite: ART 3313 or consent of instructor.
A continuation of ART 3313 with additional emphasis on lithographic plate methods and color processes.
3413 INTAGLIO: BASIC
(0-6) 3 hours credit. Prerequisite: ART 2243 or consent of instructor.
Concepts and methods of intaglio and relief printmaking with emphasis on black and white image formation.
3423 INTAGLIO: INTERMEDIATE
(0-6) 3 hours credit. Prerequisite: ART 3413 or consent of instructor.
A continuation of ART 3413 with additional investigation of color processes.
3513 PHOTOGRAPHY: INTERMEDIATE I
(0-6) 3 hours credit. Prerequisite: ART 2523 or consent of instructor.
Concentration in the concepts and methods of photography. Students are expected to provide their own cameras.
3523 PHOTOGRAPHY: INTERMEDIATE II
(0-6) 3 hours credit. Prerequisite: ART 3513 or consent of instructor.
A continuation and refinement of ART 3513. Students are expected to provide their own cameras.
3653 SCULPTURE: INTERMEDIATE I
(0-6) 3 hours credit. Prerequisite: ART 2233, ART 2623, or consent of instructor.
Concentration in the methods, materials and concepts of sculpture.
3663 SCULPTURE: INTERMEDIATE II
(0-6) 3 hours credit. Prerequisite: ART 3653 or consent of instructor.
A continuation and refinement of ART 3653.
3733 CERAMICS: INTERMEDIATE I
(0-6) 3 hours credit. Prerequisite: ART 2723 or consent of instructor.
Concepts and methods of ceramics.
3743 CERAMICS: INTERMEDIATE II
(0-6) 3 hours credit. Prerequisite: ART 3733 or consent of instructor.
A continuation and refinement of ART 3733.
4133 PAINTING: ADVANCED I
(0-6) 3 hours credit. Prerequisite: ART 3123 or consent of instructor.
A continuation and refinement of ART 3123 with emphasis on the development of individual imagery.

4143 PAINTING: ADVANCED II
(0-6) 3 hours credit. Prerequisite: ART 4133 or consent of instructor.
A continuation and refinement of ART 4133. May be repeated for credit.

4233 DRAWING: ADVANCED I
(0-6) 3 hours credit. Prerequisite: ART 3223 or consent of instructor.
A continuation and refinement of ART 3223 with emphasis on the development of individual imagery.

4243 DRAWING: ADVANCED II
(0-6) 3 hours credit. Prerequisite: ART 4233 or consent of instructor. A continuation and refinement of ART 4233. May be repeated for credit.

4333 LITHOGRAPHY: ADVANCED I
(0-6) 3 hours credit. Prerequisite: ART 3323 or consent of instructor.

A continuation and refinement of ART 3323 with emphasis on the development of individual imagery in terms of lithography.
4343 LITHOGRAPHY: ADVANCED II
(0-6) 3 hours credit. Prerequisite: ART 4333 or consent of instructor.
A continuation and refinement of ART 4333. May be repeated for credit.
4433 INTAGLIO: ADVANCED I
(0-6) 3 hours credit. Prerequisite: ART 3423 or consent of instructor.

A continuation and refinement of ART 3423, with emphasis on the development of individual imagery in terms unique to intaglio or relief processes.
4443 INTAGLIO: ADVANCED II
(0-6) 3 hours credit. Prerequisite: ART 4433 or consent of instructor.
A continuation and refinement of ART 4433. May be repeated for credit.

4533 PHOTOGRAPHY: ADVANCED I
(0-6) 3 hours credit. Prerequisite: ART 3523 or consent of instructor.
A continuation and refinement of ART 3523, with emphasis on the development of individual imagery.

4543 PHOTOGRAPHY: ADVANCED II
(0-6) 3 hours credit. Prerequisite: ART 4533 or consent of instructor.
A continuation and refinement of ART 4533. Students are expected to provide their own cameras. May be repeated for credit.

4673 SCULPTURE: ADVANCED I
(0-6) 3 hours credit. Prerequisite: ART 3663 or consent of instructor.
A continuation and refinement of ART 3663, with emphasis on the development of individual imagery as related to specific materials.

4683 SCULPTURE: ADVANCED II
(0-6) 3 hours credit. Prerequisite: ART 4673 or consent of instructor.
A continuation and refinement of ART 4673. May be repeated for credit.

4753 CERAMICS: ADVANCED I
(0-6) 3 hours credit. Prerequisite: ART 3743 or consent of instructor.
A continuation and refinement of ART 3743 with emphasis on the development of individual form.

4763 CERAMICS: ADVANCED II
(0-6) 3 hours credit. Prerequisite: ART 4753 or consent of instructor.
A continuation and refinement of ART 4753. May be repeated for credit.

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.

## 4923 SPECIAL PROJECT IN ART

3 hours credit.
Must be taken in the term in which the student expects to graduate. An exhibition of selected work and a written thesis, both to be completed during the last year and submitted to a faculty committee for approval. The thesis places the work in an aesthetic and historical context.

## 4953 SPECIAL STUDIES IN ART

(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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 ART HISTORY AND CRITICISM

(AHC)1113 SURVEY OF ART I: ANCIENT TO MEDIEVAL(3-0) 3 hours credit.A study of art and architecture of Egypt, the near East andEurope (Western Civilization) from prehistoric times to 1400 A.D.
1123 SURVEY OF ART II: RENAISSANCE TO MODERN(3-0) 3 hours credit.A study of art and architecture in Europe and the U.S. from 1400to the present.
1213 SURVEY OF ART OF THE AMERICAS I
(3-0) 3 hours credit.A study of art and architecture in ancient America to Europeancolonization with special emphasis on Mesoamerica.
1223 SURVEY OF ART OF THE AMERICAS II(3-0) 3 hours credit.A study of art and architecture of the Americas from 1500 to thepresent with special emphasis on Hispanic America.
1913 INTRODUCTION TO THE FLLM(3-0) 3 hours credit.A survey of the cinematic art. Creative and technical develop-ment of the motion picture, aesthetics of the moving image, andmajor stylistic and thematic tendencies.
2013 ANCIENT ART
(3-0) 3 hours credit.A study of art and architecture in Persia, Mesopotamia, Egypt,Greece, Crete, and Roman Italy.
2113 MEDIEVAL ART(3-0) 3 hours credit.A study of Early Christian, Byzantine, Romanesque and Gothicart and architecture in Europe.
2413 EUROPEAN ART: SEVENTEENTH TO EIGHTEENTHCENTURIES(3-0) 3 hours credit.A study of the Baroque and Rococo art of Europe in the seven-teenth and eighteenth centuries.
3123 NORTHERN EUROPEAN ART: FIFTEENTH AND SIX-TEENTH CENTURIES
(3-0) 3 hours credit. Prerequisites: AHC 1113 and AHC 1123.A study of fifteenth and sixteenth century art of Northern Europe.Emphasis is placed on the development of the arts primarilyin Flanders and Germany.

3133 SOUTHERN EUROPEAN ART: FIFTEENTH AND SIXTEENTH CENTURIES
(3-0) 3 hours credit. Prerequisites: AHC 1113 and AHC 1123.
A study of painting, sculpture and architecture in Southern Europe in the fifteenth and sixteenth centuries, with primary emphasis on Renaissance Italy.

## 3213 ISLAMIC ART

(3-0) 3 hours credit. Prerequisites: AHC 1113 and AHC 1123. A study of art and architecture in the Near East, North Africa and Spain.

3223 SPANISH ART I: VISIGOTHIC TO LATE GOTHIC
(3-0) 3 hours credit. Prerequisites: AHC 1113 and AHC 1123.
Art and architecture in the Iberian Peninsula from the seventh century to the reign of Fernando and Isabel.

3233 SPANISH ART II: SPAIN UNDER THE HAPSBURGS
(3-0) 3 hours credit. Prerequisites: AHC 1113 and AHC 1123.
A study of painting, sculpture, architecture, and other arts in the various regions of Spain during the period of Hapsburg Rule (1516-1700).
3243 SPANISH ART III: EIGHTEENTH CENTURY TO THE PRESENT
(3-0) 3 hours credit. Prerequisites: AHC 1113 and AHC 1123. A study of painting, sculpture, architecture and other arts in Spain beginning with the period of the Bourbon kings in the eighteenth century and extending to the arts in Spain today, including contemporary Spanish film.
3323 EUROPEAN AND UNITED STATES ART I: NINETEENTH CENTURY
(3-0) 3 hours credit. Prerequisites: AHC 1113 and AHC 1123.
A study of painting, sculpture, architecture and the graphic arts in Europe and the United States from 1790 to 1900.
3333 EUROPEAN AND UNITED STATES ART II: TWENTIETH CENTURY
(3-0) 3 hours credit. Prerequisites: AHC 1113 and AHC 1123. Painting, sculpture, architecture and the graphic arts in Europe and the United States since 1900.
3423 PRE-COLUMBIAN ART I: MESOAMERICA
(3-0) 3 hours credit. Prerequisites: AHC 1113 and AHC 1123.
A study of art and architecture in pre-Hispanic Guatemala, Mexico, Belize and Honduras.
3433 PRE-COLUMBIAN ART II: ANDEAN REGION (3-0) 3 hours credit. Prerequisites: AHC 1113 and AHC 1123. A study of art and architecture in pre-Hispanic Peru, Ecuador and Bolivia.

3443 NATIVE AMERICAN ART
(3-0) 3 hours credit. Prerequisites: AHC 1113 and AHC 1123.

A study of art and architecture in North America prior to European colonization.
3453 NEW WORLD HISPANIC ART: MEXICO AND GUATEMALA (3-0) 3 hours credit. Prerequisites: AHC 1113 and AHC 1123.
A study of art and architecture in Mexico and Guatemala of the sixteenth to the nineteenth centuries.
3613 HISTORY OF MODERN ARCHITECTURE
(3-0) 3 hours credit. Prerequisite: Upper-division standing.
A study of modern architecture - its origin and its technological and philosophical evolution from the nineteenth century to the present.
3623 HISTORY OF ANCIENT AND COLONIAL ARCHITECTURE IN MEXICO AND GUATEMALA
(3-0) 3 hours credit. Prerequisite: Upper-division standing.
A study of Pre-Columbian and Colonial Architecture in Mexico and Guatemala from 1500 B.C. to 1800 A.D.
3813 HISTORY OF PHOTOGRAPHY
(3-0) 3 hours credit. Prerequisites: AHC 1113 and AHC 1123 or consent of instructor.
The history of photography from its inception to the present.
3923 HISTORY AND ART OF FILM I
(3-0) 3 hours credit. Prerequisite: AHC 1913 or consent of instructor.
The history of film up to the era of sound.
3933 HISTORY AND ART OF FILM II
(3-0) 3 hours credit. Prerequisite: AHC 1913 or consent of instructor.
The history of film from the beginning of the sound era to the present.
4113 CONTEMPORARY ART OF THE U.S.
(3-0) 3 hours credit. Prerequisites: AHC 1113 and AHC 1123.
A study of the major movements in the visual arts in the United States from 1940 to the present.
4133 MEXICAN AMERICAN ART
(3.0) 3 hours credit. Prerequisites: AHC 1213 and AHC 1223.

A study of contemporary Hispano, Mexican American and Chicano Art.
4143 ART AND ARCHITECTURE OF THE SOUTHWEST
(3-0) 3 hours credit. Prerequisites: AHC 1213 and AHC 1223. A study of the art and architecture in the American Southwest and northern Mexico with special emphasis on New Mexico: seventeenth to nineteenth centuries.

## 4413 CONTEMPORARY MEXICAN ART

(3-0) 3 hours credit. Prerequisites: AHC 1213 and AHC 1223. A study of twentieth century art and architecture in Venezuela, especially the Muralists.

## 4423 CONTEMPORARY ART OF LATIN AMERICA

(3-0) 3 hours credit. Prerequisites: AHC 1213 and AHC 1223.
A study of twentieth century art and architecture in Venezuela, Columbia, Peru, Chile, Argentina, Brazil, Boliva and Uruguay.
4813 ART CRITICISM
(3-0) 3 hours credit. Prerequisites: AHC 1113 and AHC 1123 or consent of instructor.
An examination of the principles and methods of critical analysis of works of art, as well as the role and influence on the art critic. Assignments include readings of selected critical texts and exercises in critical writing.
4911-3 NDEPENDENT STUDY
1-3 hours credit. Prerequisites: Permission in writing (form available) of the instructor, the student's Advisor, and the Divison 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.
4953 SPECIAL STUDIES IN ART HISTORY AND CRITICISM (3-0) 3 hours credit. Prerequisite: Consent of instructor. An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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.

## BACHELOR OF FINE ARTS DEGREE WITH A CONCENTRATION IN ARCHITECTURAL DESIGN ${ }^{13}$

The Bachelor of Fine Arts Degree with a concentration in Architectural Design is a five-year professional degree. The University of Texas at San Antonio offers the final three years of the five-year program.

Students are accepted into the degree program after completing a minimum of 36 semester hours of lower-divisioncourses at an institution other than The University of Texas at San Antonio. ${ }^{14}$ distributed as follows:

8 semester hours of studio drawing or rendering
14 semester hours of architectural design and graphics studies
8 semester hours of construction, including both materials and statics
6 semester hours of the history of architecture
Either of the following sequences of courses, which may be included in The University of Texas at San Antonio's 50 hour General Education Requirements, is prerequisite for upperdivision Architectural Design courses:

MAT 1213 Calculus I
PHY 1903 Technical Physics I
PHY 1911 Technical Physics I Lab
PHY 1923 Technical Physics II
PHY 1931 Technical Physics II Lab
or
MAT 1213 Calculus I
PHY 1803 Physics for Life Sciences I
PHY 1811 Physics for Life Sciences I Lab
PHY 1823 Physics for Life Sciences II
PHY 1831 Physics for Life Sciences II Lab

[^38]The minimum number of semester hours required for the BFA Degree with a Concentration in Architectural Design is 162, including the 36 semester hours to be completed at another institution and the 50 hours of General Education Requirements.

All candidates for the degree must complete:
A. 100 semester hours in the major, 36 semester hours of which must be at the lower-division level from an institution other than The University of Texas at San Antonio. In addition to the 36 semester hours of lower-division credit, 64 semester credit hours are required as follows:

1. 58 semester hours of required courses at the upperdivision level are:

ARC 3115 Architectural Design Studio I
ARC 3125 Architectural Design Studio II
ARC 3234 Construction III
ARC 3244 Construction IV
ARC 3313 Environmental Control Systems I
ARC 3323 Environmental Control Systems II
ARC 3413 Architectural Documents I
ARC 3423 Architectural Documents II
ARC 4135 Architectural Design Studio III
ARC 4145 Architectural Design Studio IV
ARC 4156 Architectural Design Studio V
ARC 4166 Architectural Design Studio VI
ARC 4513 Architectural Practice
ARC 4613 Construction Management
2. 6 additional semester hours are required from the following:
ARC 4623 Historic Preservation
ARC 4633 Site Planning and Landscaping
ARC 4643 Interior Design
ARC 4653 Architectural Marketing and Management
B. 12 semester hours of support work.

1. 6 semester hours of required courses are:

AHC 3613 History of Modern Architecture
AHC 3623 History of Ancient and Colonial Architecture in Mexico and Guatemala
2. 6 additional semester hours are required in Environmental Studies, as approved by the student's Advisor.

## COURSE DESCRIPTIONS

## ARCHITECTURAL DESIGN

(ARC)

## 3115 ARCHITECTURAL DESIGN STUDIO I

(0-10) 5 hours credit. Prerequisite: Required lower-division Architectural Design courses.
The study of the process of researching, programming and developing physical design solutions.

## 3125 ARCHITECTURAL DESIGN STUDIO II

(0-10) 5 hours credit. Prerequisite: ARC 3115.
Continuation of the study of the process of reseaching, programming and developing physical design solutions.

## 3234 CONSTRUCTION III

(3-3) 4 hours credit. Prerequisites: MAT 1213, PHY 1903 or PHY 1803 or concurrent registration, and required lower-division Architectural Design courses or consent of instructor.
The study of the design and behavior of structural steel and timber systems, including the application of building specifications.

## 3244 CONSTRUCTION IV

(3-3) 4 hours credit. Prerequisites: PHY 1923 or PHY 1823 or concurrent registration and ARC 3234.
The study of the design and behavior of structural concrete systems, including the application of building and specifications.

3313 ENVIRONMENTAL CONTROL SYSTEMS I
(3-0) 3 hours credit. Prerequisite: Required lower-division Architectural Design courses or consent of instructor.
Qualitative and quantitative study of heating, ventilating, cooling, plumbing and mechanical movement systems, and their integration into a building system.

## 3323 ENVIRONMENTAL CONTROL SYSTEMS II

(3-0) 3 hours credit. Prerequisite: ARC 3313.
A qualitative and quantitative study of acoustical, electrical and illumination systems, and their integration into a building system.

## 3413 ARCHITECTURAL DOCUMENTS I

(3-0) 3 hours credit. Prerequisite: Upper-division standing.
An introduction to the technical documents of building construction, their preparation and use in communication between the architect and other professional consultants.

## 3423 ARCHITECTURAL DOCUMENTS II

(3-0) 3 hours credit. Prerequisite: ARC 3413.
A continuation of the study of technical documents of building construction, their preparation and use in communication between the architect and other professional consultants, with emphasis on working drawings, specifications and building codes.

## 4135 ARCHITECTURAL DESIGN STUDIO III

$(0-10) 5$ hours credit. Prerequisite: ARC 3125.
Further development of design problems integrating structural and mechanical systems for complete design solutions to various building types.

## 4145 ARCHITECTURAL DESIGN STUDIO IV

( $0-10$ ) 5 hours credit. Prerequisite: ARC 4135.
Continuation of the development of design problems integrating structural and mechanical systems for complete design solutions to various building types.

## 4156 ARCHITECTURAL DESIGN STUDIO V

(1-10) 6 hours credit. Prerequisite: ARC 4145.
A comprehensive study of the planning and designing of largescale urban development projects in collaboration with other disciplines and with emphasis on social, political and economic systems that influence the physical enviroriment.

## 4166 ARCHITECTURAL DESIGN STUDIO VI

(1-10) 6 hours credit. Prerequisite: ARC 4156.
A continuation of the study of the planning and designing of large-scale urban development projects in collaboration with other disciplines and with emphasis on social, political and economic systems that influence the physical environment.
4513 ARCHITECTURAL PRACTICE
(3-0) 3 hours credit. Prerequisite: ARC 4135.
A study of the standards of architectural practice, professional responsibilities, contracts, bonds and ordinances, architectural partnerships, and other considerations of professional practice.
4613 CONSTRUCTION MANAGEMENT
(3-0) 3 hours credit. Prerequisite: ARC 3244.
The study of the process of construction and its management.

## 4623 HISTORIC PRESERVATION

(3-0) 3 hours credit. Prerequisite: Upper-division standing.
A study of the preservation of old structures and their adaptive re-use in terms of legal, technical and aesthetic factors, with special emphasis on regional architecture.

## 4633 SITE PLANNING AND LANDSCAPING

(3-0) 3 hours credit. Prerequisite: ARC 3125.
A study of the form and organization of natural and constructed sites with emphasis on landscaping and the placement of buildings, and other site considerations.
4643 INTERIOR DESIGN
(3-0) 3 hours credit. Prerequisite: ARC 3125.
The theory and application of interior architectural programming and design processes with emphasis on graphics, furnishings and accessories, and methods of selection.

4653 ARCHITECTURAL MARKETING AND MANAGEMENT (3-0) 3 hours credit. Prerequisite: ARC 3125.
A study of the business and economics of marketing and management in architectural practice.

## 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 ARCHITECTURAL DESIGN

(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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.

## DIVISION OF MUSIC

The Division of Music provides instruction for those students who wish to prepare for a professional teaching career and for those who desire a professional performing career in music. Students are provided the opportunity to engage in scholarly research in the history of music. Artistic performance and creativity are encouraged through student recitals and university ensemble performances. Students in all academic disciplines may also study music both as a scholarly pursuit and as a performing art through music classes and performing ensembles. The Division of Music is authorized to award a Bachelor of Music Education Degree, and students may select one of four emphases: Secondary Choral, All-level Choral, Secondary Instrumental or All-level Instrumental.

A student may be awarded Honors in Music in special recognition of outstanding achievement in his or her area of specialization. The award is made at the time of graduation for either (1) the successful completion of MUS 4983, Honors Seminar, or (2) an outstanding record or performances culminating in a superior Senior Recital and an overall grade-point average of at least 3.0.

The Division of Music cooperates in the musical life of the community by providing participatory, collaborative, and advisory services.

## BACHELOR OF MUSIC EDUCATION DEGREE

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, is $132{ }^{15}$ for the choral emphasis and $135^{16}$ for the instrumental emphasis.

[^39]Candidates for the Bachelor of Music Education Degree with a secondary choral emphasis must complete:
A. 58 semester hours in music, 30 of which must be at the upper-division level.

1. 42 semester hours of required music courses are:

MUS 1101 Music Reading I
MUS 1113 Basic Skills of Music I
MUS 1121 Music Reading II
MUS 1133 Basic Skills of Music II
MUS 2101 Music Reading III
MUS 2121 Music Reading IV
MUS 2314 Theoretical Studies in Music Literature I
MUS 2325 Theoretical Studies in Music Literature II MUS 2402 Conducting I
MUS 2412 Conducting II
MUS 3112 Analysis I
MUS 3122 Analysis II
MUS 3213 Music in Western Civilization I
MUS 3223 Music in Western Civilization II
MUS 3442 Intermediate Conducting and Rehearsal Techniques: Secondary School
MUS 3452 Advanced Conducting and Rehearsal Techniques: Secondary School
MUS 3463 General Music in the Junior High School

MUS 3512 Diction: English and French or MUS 3522 Diction: Italian and German
2. 16 semester hours of applied music performance are required from the following courses which may be repeated for credit to fulfill the 16 -hour requirement:

MUS 1511 Music Performance-Secondary Instrument
or
MUS 1522 Class Piano
MUS 1542 Music Performance-Private Instruction I
MUS 2542 Music Performance-Private Instruction II MUS 3532 Music Performance-Private Instruction III
B. 20 semester hours in professional education (including 6 hours of student teaching) are required.
C. 4 additional semester hours of general education for certification (3 hours of speech electives and EDU 2001) are required.
D. Special degree requirements. All students majoring in music are required (a) to make one recital appearance during the last semester of study of his principal instrument, (b) to perform in a university ensemble each term in residence including summer terms, (c) to meet music peformance proficiency standards established for principal and secondary instruments. Students who do not meet these standards are required to repeat music performance courses.

Candidates for the Bachelor of Music Education Degree with an all-level choral emphasis must complete:
A. 58 semester hours in music, 30 of which must be at the upper-division level.

1. 42 semester hours of required music courses are:

MUS 1101 Music Reading I
MUS 1113 Basic Skills of Music I
MUS 1121 Music Reading II
MUS 1133 Basic Skills of Music II
MUS 2101 Music Reading III
MUS 2121 Music Reading IV
MUS 2314 Theoretical Studies in Music Literature I
MUS 2325 Theoretical Studies in Music Literature II
MUS 2402 Conducting I
MUS 2412 Conducting II
MUS 3112 Analysis I
MUS 3122 Analysis II
MUS 3213 Music in Western Civilization I
MUS 3223 Music in Western Civilization II
MUS 3413 Music in The Elementary School
MUS 3463 General Music in the Junior High School
MUS 4423 Creative Music Experiences in the Elementary School
2. 16 semester hours of applied music performance are required from the following courses which may be repeated for credit to fulfill the 16 -hour requirement:

MUS 1511 Music Performance-Secondary Instrument or
MUS 1522 Class Piano
MUS 1542 Music Performance-Private Instruction I
MUS 2542 Music Performance-Private Instruction II
MUS 3532 Music Performance-Private Instruction III
B. 20 semester hours in professional education (including 6 hours of student teaching) are required.
C. 4 additional semester hours of general education for certification (3 hours of speech electives and EDU 2001) are required.
D. Special degree requirements. All students majoring in music are required (a) to make one recital appearance during the last semester of study on his principal instrument, (b) to perform in a university ensemble each term in residence including summer terms, (c) to meet music performance proficiency standards established for principal and secondary instruments. Students who do not meet these standards are required to repeat music performance courses.

Candidates for the Bachelor of Music Education Degree with a secondary instrumental emphasis must complete:
A. 61 semester hours in music, 30 of which must be at the upper-division level.

1. 45 semester hours of required music courses are:

MUS 1101 Music Reading I
MUS 1113 Basic Skills of Music I
MUS 1121 Music Reading II
MUS 1133 Basic Skills in Music II
MUS 2101 Music Reading III
MUS 2121 Music Reading IV
MUS 2314 Theoretical Studies in Music Literature I
MUS 2325 Theoretical Studies in Music Literature II
MUS 2402 Conducting I
MUS 2412 Conducting II

MUS 3112 Analysis I
MUS 3122 Analysis II
MUS 3132 Orchestration or
MUS 3142 Band Arranging
MUS 3213 Music in Western Civilization I
MUS 3223 Music in Western Civilization II
MUS 3431 Class Instrument Techniques: Elementary School (to be repeated for a total of 4 semester credit hours)
MUS 3442 Intermediate Conducting and Rehearsal Techniques: Secondary School
MUS 3452 Advanced Conducting and Rehearsal Techniques: Secondary School
MUS 4452 Marching Band Techniques
2. 16 hours of applied music performance are required from the following courses which may be repeated for credit to fulfill the 16 -hour requirements:
MUS 1511 Music Performance: Secondary Instrument or
MUS 1522 Class Piano
MUS 1542 Music Performance-Private Instruction I
MUS 2542 Music Performance-Private Instruction II
MUS 3532 Music Performance-Private Instruction III
B. 20 semester hours in professional education (including 6 hours of student teaching) are required.
C. 4 additional semester hours of general education for certification (3 hours of speech electives and EDU 2001) are required.
D. Special degree requirements. All students majoring in music are required (a) to make one recital appearance during the last semester of study on his/her principal instrument, (b) to perform in a university ensemble each term in residence including summer terms, (c) to meet music performance proficiency standards established for principal and secondary instruments. Students who do not meet these standards are required to repeat music performance courses.

Candidates for the Bachelor of Music Education degree with an all-level instrumental emphasis must complete:
A. 61 semester hours in music, 30 of which must be at the upper-division level.

## 1. 45 semester hours of required music courses are:

MUS 1101 Music Reading I
MUS 1113 Basic Skills of Music I
MUS 1121 Music Reading II
MUS 1133 Basic Skills of Music II
MUS 2101 Music Reading III
MUS 2121 Music Reading IV
MUS 2314 Theoretical Studies in Music Literature I
MUS 2325 Theoretical Studies in Music Literature II
MUS 2402 Conducting I
MUS 2412 Conducting II
MUS 3112 Analysis I
MUS 3122 Analysis II
MUS 3213 Music in Western Civilization I
MUS 3223 Music in Western Civilization II
MUS 3413 Music in the Elementary School
MUS 3431 Class Instrument Techniques: Elementary School (to be repeated for a total of 3 semester credit hours)
MUS 3442 Intermediate Conducting and Rehearsal Techniques: Secondary School
MUS 3452 Advanced Conducting and Rehearsal Techniques: Secondary School

MUS 3463 General Music in the Junior High School or MUS 4452 Marching Band Techniques
2. 16 hours of applied music performance are required from the following courses which may be repeated for credit to fulfill the 16 -hour requirement:

MUS 1511 Music Performance: Secondary Instrument
or
MUS 1522 Class Piano
MUS 1542 Music Performance-Private Instruction I
MUS 2542 Music Performance-Private Instruction II
MUS 3532 Music Performance-Private Instruction III
B. 20 semester hours in professional education (including 6 hours of student teaching) are required.
C. 4 additional semester hours of general education for certification (3 hours of speech electives and EDU 2001) are required.
D. Special degree requirements. All students majoring in music are required (a) to make one recital appearance during the last semester of study on his/her principal instrument, (b) to perform in a university ensemble each term in residence including summer terms, (c) to meet music performance proficiency standards established for principal and secondary instruments. Students who do not meet these standards are required to repeat music performance courses.

## COURSE DESCRIPTIONS <br> MUSIC <br> (MUS)

## 1101 MUSIC READING I

(1-1) 1 hour credit.
Provides training in sight singing, aural skills, and keyboard application. Should be taken concurrently with MUS 1113.
1113 BASIC SKILLS OF MUSIC I
(3-0) 3 hours credit.
A survey of basic 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 1101.
1121 MUSIC READING II
(1-1) 1 hour credit. Prerequisite: MUS 1101 or the equivalent.
Continued training in sight singing, aural skills and keyboard with emphasis on harmonic skills and twentieth century materials. Should be taken concurrently with MUS 1133.
1133 BASIC ŞKILLS OF MUSIC II
(3-0) 3 hours credit. Prerequisite: MUS 1113 or the equivalent. Development of harmonic, analytical and writing skills. Analytical techniques applied to music from a variety of style periods.
1511 MUSIC PERFORMANCE-SECONDARY INSTRUMENT 1 hour credit.
Private instruction for students desiring or required to study as secondary instruments the following: baritone, bassoon, clarinet, contrabass, cornet, flute, guitar, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, voice. May be repeated for credit.

1522 CLASS PIANO
(2-1) 2 hours credit. Prerequisite: Placement examination. Keyboard skills and sight reading ability developed. May be repeated for credit.
1531 CLASS VOICE
(1-0) 1 hour credit. Prerequisite: Placement examination.
For students with no previous vocal training. Fundamentals of voice technique developed including in-class performances of suitable songs. May be repeated for credit.
1542 MUSIC PERFORMANCE-PRIVATE INSTRUCTION I
2 hours credit. Prerequisite: Placement by examination.
Private instruction for students desiring or required to study the following instruments: baritone, bassoon, clarinet, contrabass, cornet, flute, guitar, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, voice. May be repeated for credit.
2101 MUSIC READING III
(1-1) 1 hour credit. Prerequisite: MUS 1121 or the equivalent.
Sight singing, aural skills and keyboard techniques applied to literature and theoretical skills drawn from MUS 2314.
2121 MUSIC READING IV
(1-1) 1 hour credit. Prerequisites: MUS 2101 and MUS 2314 or the equivalents.
Application of skills to materials drawn from MUS 2325. Should be taken concurrently with MUS 2325.

## 2141 COMPOSITION I

(1-0) 1 hour credit. Prerequisites: MUS 1101, 1113, and consent of instructor.
Fundamentals of composition.
2151 COMPOSITION II
(1-0) 1 hour credit. Prerequisites: MUS 2141 and consent of instructor.
Fundamentals of composition in small forms.
2314 THEORETICAL STUDIES IN MUSIC LITERATURE I
(4-0) 4 hours credit. Prerequisites: MUS 1121, 1133.
A team-taught course involving theoretical analysis of harmony, melody, and form; stylistic identity; performance practice; historical perspective; and writing techniques of music. Organized by performance media.
2325 THEORETICAL STUDIES IN MUSIC LITERATURE II (5-0) 5 hours credit. Prerequisite: MUS 2314.
A continuation of MUS 2314, but with more emphasis on theoretical aspects and skills.
2402 CONDUCTING I
(2-0) 2 hours credit. Prerequisite: MUS 1133 or the equivalent. Fundamentals of beat patterns, baton use, score reading, and practical experience.

## 2412 CONDUCTING II

(2-0) 2 hours credit. Prerequisite: MUS 2402 or the equivalent. Fundamentals of beat patterns, full score reading, choral and instrumental rehearsal techniques.
2542 MUSIC PERFORMANCE-PRIVATE INSTRUCTION II 2 hours credit. Prerequisite: MUS 1532 or placement by examination.
Private instruction for students desiring or required to study the following instruments: baritone, bassoon, clarinet, contrabass, cornet, flute, guitar, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, voice. May be repeated for credit.
2603 BEGINNING GUITAR (3-0) 3 hours credit.
An introductory course primarily for the non-music major. Tuning, hand positions, chords, accompaniment patterns, strumming, finger-picking and bar technique.
2613 INTERMEDIATE GUITAR
(3-0) 3 hours credit. Prerequisite: MUS 2603 or equivalent.
Primarily for the non-music major, the course includes development of accompaniment style, scales, music reading, melody playing, and solo guitar techniques.
2633 MUSICAL STYLES AND MATERIALS FOR THE NON. MUSIC MAJOR
(3-0) 3 hours credit.
A non-technical survey of musical styles and traditions, emphasizing listening skills and background information for the concert goer and the listener who wishes to build a library of fine recordings.
3112 ANALYSIS I
(2-0) 2 hours credit. Prerequisites: MUS 2121 and MUS 2325 or the equivalents.
Analytical techniques applied to all parameters in selected works from a variety of style periods. Structural analysis of smaller musical forms.

3122 ANALYSIS II
(2-0) 2 hours credit. Prerequisite: MUS 3112 or the equivalent. Analysis of structures and other parameters applied to larger musical forms selected from a variety of style periods.
3132 ORCHESTRATION
(2-0) 2 hours credit. Prerequisites: MUS 2121, 2325.
Applied instrumentation, emphasizing idiomatic scoring for various orchestral combinations with an approach to writing for full orchestra.
3142 BAND ARRANGING
(2-0) 2 hours credit. Prerequisite: MUS 2121, 2325 or equivalent. A practical approach to planning and writing arrangements for band.
(2-0) 2 hours credit. Prerequisite: MUS 2325 or the equivalent.
Practical studies in arranging for choral ensembles with emphasis on successful writing for secondary school choirs.
3161 COMPOSITION III
(1-0) 1 hour credit. Prerequisites: MUS 2121, 2151, 2325; and consent of instructor.
Private study in applied composition with emphasis on expansion of musical materials.
3171 COMPOSITION IV
(1-0) 1 hour credit. Prerequisite: MUS 3161; consent of instructor. Private study in applied composition with emphasis on expansion of musical materials leading to larger forms.
3213 MUSIC IN WESTERN CIVILIZATION I (3-0) 3 hours credit. Prerequisite: MUS 2325 or the equivalent. A study of music in the Medieval, Renaissance, and Baroque, periods.
3223 MUSIC IN WESTERN CIVILIZATION II
(3-0) 3 hours credit. Prerequisite: MUS 2325 or the equivalent.
A study of music in the Classic, Romantic and Contemporary periods.
3253 SPECIAL STUDIES IN MUSIC LITERATURE
(3-0) 3 hours credit. Prerequisite: Upper-division standing. Topics include: String Chamber Music; Wind Chamber Music; History of Song; Orchestral Literature; History and Literature of the Guitar; Choral Literature from 1400 to 1825; Choral Literature from 1825 to Present; History and Literature of the Keyboard Up to 1750; Literature of the Pianoforte; Organ Literature; The Operatic Tradition; and The Instrumental Concerto. Two or more topics may be taken concurrently. May be repeated for credit when topics vary.
3413 MUSIC IN THE ELEMENTARY SCHOOL
(3-1) 3 hours credit. Prerequisites: MUS 2325 or the equivalent and upper-division standing in music.
Methods of instruction, organization, and presentations of appropriate content in music for the elementary school.
3431 CLASS INSTRUMENT TECHNIQUES: ELEMENTARY SCHOOL
(2-0) 1 hour credit. Prerequisite: MUS 1133 or the equivalent. A class to gain the knowledge necessary for instrumental teachers in the public schools in the following areas: Strings, Brass, Woodwinds, and Percussion. Two or more areas may be taken concurrently.
3442 INTERMEDIATE CONDUCTING AND REHEARSAL TECHNIQUES: SECONDARY SCHOOL
(2-0) 2 hours credit. Prerequisite: MUS 2412 or the equivalent. Baton study, introduction of major works. Further study of
regular and asymmetric meters, and polymeters. Individual sections for choral and instrumental.
3452 ADVANCED CONDUCTING AND REHEARSAL TECHNIQUES: SECONDARY SCHOOL
(2-0) 2 hours credit. Prerequisite: MUS 3442 or the equivalent. Continuation of MUS 3442 with emphasis on expeessive conducting, score interpretation and artistic ensemble performance. Individual sections for choral and instrumental.
3463 GENERAL MUSIC IN THE JUNIOR HIGH SCHOOL (3-0) 3 hours credit. Prerequisite: Upper-division standing in music.
The objectives, contents and methods in the teaching of general music in the middle or junior high school. Special attention is also given to problems related to the changing voice.
3512 DICTION: ENGLISH AND FRENCH (2-0) 2 hours credit. Prerequisite: Upper-division standing. Study of French and English pronunciation for singers; the pronunciation of both languages as it applies to public performance.
DICTION: ITALIAN AND GERMAN
(2-0) 2 hours credit. Prerequisite: Upper-division standing.
Study of Italian and German pronunciation for singers; the pronunciation of both languages as it applies to public performance.
3532 MUSIC PERFORMANCE-PRIVATE INSTRUCTION III
2 hours credit. Prerequisite: MUS 2542 or placement by examination.
Private instruction for students desiring or required to study the following instruments: baritone, bassoon, clarinet, contrabass, cornet, flute, guitar, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, voice. May be repeated for credit.
3554 MUSIC PERFORMANCE-PRIVATE INSTRUCTION IV
4 hours credit. Prerequisite: Upper-dirision standing and consent of instructor.
Private instruction at an advanced level in baritone, bassoon, clarinet, contrabass, cornet, flute, guitar, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, voice. May be repeated for credit.

## 3623 MUSIC OF THE AMERICAS

(3-0) 3 hours credit.
Study of the indigenous and borrowed traditions in the music of the Americas from the Colorial period to the present.
3643 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 composer's biographies.
3653 MUSIC FOR THE CLASSROOM TEACHER
(3-1) 3 hours credit.
Development of the classroom music program in the elementary school, including techniques and materials.
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; touring is required of all members. May be repeated for credit.
3712 CONCERT CHOIR
(0-5) 2 hours credit. Prerequisite: Consent of instructor by audition.
An ensemble whose repertoire is chosen from both sacred and secular literature. Serious music is emphasized. May be repeated for credit.
3721 UTSA CHORUS
(0-2) 1 hour credit.
This choral ensemble is open to all students. UTSA Chorus sings light music including folk music and popular music. The ensemble performs for campus and civic activities. May be repeated for credit.

## 3731 WOMEN'S CONCERT CHOIR

(0-3) 1 hour credit. Open to all women by audition. Repertoire includes works from all periods of music including lighter and popular styles. 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 CHAMBER ORCHESTRA
(0-3) 1 hour credit. Open to all students by audition.
The Chamber Orchestra studies, rehearses and performs the repertoire from all periods for small orchestral combinations. May be repeated for credit.
3771 JAZZ ENSEMBLE
(0-3) 1 hour credit. Open to all students by audition.
An ensemble specializing in the performance of the various
streams of jazz and other music appropriate to stage bands and jazz ensembles. May be repeated for credit.
4423 CREATIVE MUSIC EXPERIENCES IN THE ELEMENTARY SCHOOL
(3-1) 3 hours credit. Prerequisite: MUS 3653 or MUS 3413.
Study of music activities for the elementary schools: rhythm, singing, making and playing of simple instruments, accompanying instruments, listening, and bodily movement.
4452 MARCHING BAND TECHNIQUES
(2-0) 2 hours credit. Prerequisite: MUS 2325.
Techniques for the development of a marching band are presented for prospective band directors.
4512 PIANO PEDAGOGY
(2-0) 2 hours credit. Prerequisite: Upper-division standing in music.
Survey of techniques, practices, and materials of teaching piano. Development of technique and style. Review of materials for beginning, intermediate, and advanced students.

4522 VOICE PEDAGOGY
(2-0) 2 hours credit. Prerequisite: Upper-division standing in music.
Survey of techniques, practices, and materials of teaching voice. Review of materials for beginning, intermediate, and advanced students.

## 4532 PEDAGOGY OF ORCHESTRAL INSTRUMENTS

(2-0) 2 hours credit. Prerequisite: Upper-division standing in music.
Survey of techniques, practices and materials of teaching the orchestral instruments. Review of materials for beginning, intermediate, and advanced students. Topics include: Strings, Brass, Woodwinds, and Percussion. May be repeated for credit when topics vary.
4542 ORGAN PEDAGOGY
(2-0) 2 hours credit. Prerequisite: Upper-division standing in music. Survey of techniques, practices, and materials of teaching organ. Development of technique and style. Review of materials for beginning, intermediate, and advanced students.
4554 MUSIC PERFORMANCE-PRIVATE INSTRUCTION V
4 hours credit. Prerequisite: MUS 3554 or equivalent and consent of instructor.
Private instruction at an advanced level in baritone, bassoon, clarinet, contrabass, cornet, flute, guitar, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, voice. May be repeated for credit.
4561 SENIOR RECITAL
1 hour credit. Prerequisite: Consent of instructor.
A public performance presented as a culmination of the student's private instruction.

4581 CHAMBER MUSIC
(1-0) 1 hour credit. Prerequisite: Upper-division standing in music.
Designed to provide students with knowledge of chamber music literature and to perform this repertoire.
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 MUSIC
(3-0) 3 hours credit. Prerequisite: Consent of instructor. An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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.
4983 HONORS SEMINAR
(3-0) 3 hours credit. Prerequisite: Overall university GPA of 3.0 and 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 Divisional honors in Music. Intensive analytical/historical study of a topic to be designed by the instructor.

## College of Humanities and Social Sciences

The College of Humanities and Social Sciences is responsible in large part for general education in The University. The College performs an integrative role, providing the intellectual skills and perceptions necessary to the successful completion of a bachelor's degree program. The teaching of basic skills in expository writing and in analytical reading has as its aim to equip the student for university study and adult life. These skills aid the student in any specialized field. Training in analytical thinking is gained through the various disciplines of the College and through interdisciplinary studies. These functions are performed through required courses in English, humanities, foreign languages, and in the social sciences, including the legislatively mandated areas of political science and history. Undergraduate major programs ${ }^{17}$ form a group of general studies with specialization possible through concentration and work in supporting fields. The College offers cultural and linguistic courses which provide a sense of the heritage of civilization as a whole and of Western and non-Western ethnic traditions. In short, the College supplies a significant part of a liberal education.
${ }^{17}$ All students who major in this College must complete ENG 1033 INTRODUCTION TO THE HUMANITIES or the equivalent.

## DIVISION OF ENGLISH, CLASSICS, AND PHILOSOPHY

The aim of the Division of English, Classics, and Philosophy is to assist in providing the kind of liberal education which will allow each student to realize his or her full intellectual potential. To this end, the Division offers a variety of courses designed to introduce all students to our literary and philosophical heritage, to develop their abilities in both written and oral communication, and to prepare them for graduate study or entrance to professional programs or schools.

The Division offers majors in English and, in cooperation with the Division of Foreign Languages, in Humanities, as well as support work in Communications, Philosophy, and Classics.

## BACHELOR OF ARTS DEGREE IN ENGLISH

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, is $120 .{ }^{18}$

All candidates for the degree must complete:
A. 30 semester hours in English (in addition to the 9 hours of English in the General Education Requirements), 21 of which must be at the upper-division level.

1. 15 semester hours of required courses are:

ENG 2223 Major British Writers I ENG 2233 Major British Writers II ENG 2253 The American Renaissance

ENG 3223 Shakespeare: The Early Plays or ENG 3233 Shakespeare: The Later Plays

[^40]ENG 4973 Seminar For English Majors or ENG 4983 Honors Seminar
2. 15 additional semester hours are required in English.
B. 12 semester hours of support work, at least 6 hours of which must be in a single field at the upper-division level and must be chosen from the following: 1) foreign languages, literature (including foreign literatures in translation), and culture and civilization; 2) linguistics (including linguistics courses designated ENG provided that they have not been counted toward the required 30 semester hours in English) and communications; 3) history, anthropology, and political science; 4) classics, philosophy, and humanities; 5) history and theory of art and of music; 6) other subjects as may be individually justified by the student and approved by the undergraduate Advisor and Division Director. Students who select a support area other than number 4 may apply 6 hours of upper-division humanities courses toward the English major.
C. 28 semester hours of free electives.

A student whose grade-point average in English prior to the beginning of his or her final year at UT San Antonio is 3.5 or above may petition the Division for permission to work for honors in English. A student seeking honors in English must complete ENG 4983 during his or her final year. To graduate with honors in English, a student must have a final grade-point avarage of 3.5 or above in the major.

## COURSE DESCRIPTIONS <br> ENGLISH <br> (ENG)

1013 FRESHMAN COMPOSITION
(3-0) 3 hours credit. Intensive study of the fundamentals of expository English prose. Emphasis on syntax, paragraph development, and organization of themes. Frequent practice in writing expository themes. (This course or the equivalent is required of all undergraduates in partial fulfillment of the General Education Requirements and must be taken during the first semester of the freshman year.)
1023 INTRODUCTION TO THE HUMANITIES I
(3-0) 3 hours credit. Prerequisite: ENG 1013 or the equivalent.

Close reading and discussion of selected texts in literature and philosophy. Texts selected thematically to provide subjects for analytical writing; continuing emphasis placed on developing writing skills. (This course or the equivalent is required of all undergraduates in fulfilling the General Education Requirements and should be taken as the continuation of ENG 1013.)
1033 INTRODUCTION TO THE HUMANITIES II
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. Close reading and discussion of selected texts in literature and philosophy. Texts selected thematically to provide subjects for analytical writing; continuing emphasis placed on developing writing skills. A continuation of ENG 1023. (Required of all students whose majors are in the College of Humanities and Social Sciences.)

## 1043 LANGUAGE AND COMMUNICATION

(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. Study of the principles of oral communication and the use of language to affect human behavior.

## 2213 INTRODUCTION TO THE STUDY OF LITERATURE

(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. A study of critical principles and literary concepts through an investigation of poetry, drama, and fiction.
2223 MAJOR BRITISH WRITERS I
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. A study of representative works of at least six major writers from Chaucer to Johnson.

## 2233 MAJOR BRITISH WRITERS II

(3-0) 3 hours credit. Prerequisite: ENG 2223 or the equivalent. A study of representative works of at least six major writers from Blake to T. S. Eliot.
2253 THE AMERICAN RENAISSANCE
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. An intensive study of the major forms and traditions of American literature from 1820 to 1860 with emphasis on Poe, Hawthorne, Melville, Emerson, Thoreau, Whitman, and Dickinson.
2273 TOPICS IN POPULAR LITERATURE
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. Critical readings in one of the following popular modes: Science Fiction, Gothic Fiction, Western Fiction, and Detective Fiction. May be repeated for credit when topics vary.
2313 EXPOSITORY WRITING
(3-0) 3 hours credit.Prerequisite: ENG 1023 or the equivalent.
Emphasis on the organization and logic of expository prose. The second half of the course focuses on the research, development, and writing of a term paper.
2323 CREATIVE WRITING: PROSE
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent.
Intensive practice and development of techniques in the writing of creative prose.

2333 CREATIVE WRITING: POETRY
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. Intensive practice and development of techniques in the writing of poetry.
3033 CONTEMPORARY AMERICAN LITERATURE
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. An intensive study of verse and prose fiction of the last two decades as it relates to American literary traditions and thought.
3043 BLACK LITERATURE IN AMERICA
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. A comprehensive survey of the works of Black writers in America from the eighteenth century to the present; imaginative literature, slave narratives, biographical sketches, social commentary, and folk literature will be studied.

## 3113 STUDIES IN INDIVIDUAL AUTHORS

(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. A comprehensive study of the works of an individual English or American author, or of several authors studied in relation to one another. The writers studied may be selected from the following: Spenser, Marlowe, Milton, Pope, Hardy, Joyce, and Faulkner. May be repeated for credit when authors vary.
3123 MODERN FICTION
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent.
A 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 IN LITERATURE
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. A study of the presentation of women and feminist issues in verse, fiction, and non-fiction prose of the nineteenth and twentieth centuries. Both men and women writers will be read.

## 3213 CHAUCER

(3-0) 3 hours credit. Prerequisite: ENG 2223 or the equivalent.
Critical study of the Canterbury Tales and other poems read in Middle English.

## 3223 SHAKESPEARE: THE EARLY PLAYS

(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. Critical study of at least ten comedies, histories, and tragedies from the eariler period (1590-1601).
3233 SHAKESPEARE: THE LATER PLAYS
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent.
Critical study of at least ten comedies, tragedies, and romances from the later period (1602-1613). ENG 3223 is not prerequisite to ENG 3233.
3243 THE ENGLISH NOVEL
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. A critical survey of selected novels of the eighteenth and nine-
teenth centuries with emphasis on the literary qualities of the works.
3253 THE AMERICAN NOVEL
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent.
Reading and discussion of representative American novels from the beginnings to the present.

3313 ADVANCED COMPOSITION
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. Extensive practice in the writing of expository and argumentative prose.
3323 HISTORY OF THE ENGLISH LANGUAGE
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. A historical survey of the development of the sounds and grammatical structure of the English language.
3333 STRUCTURE OF MODERN ENGLISH
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent.
Descripton of English syntax; the concept of Standard English;
the variety (both regional and social) of modern English.
Attention to the pedagogical and social questions raised concerning bidialectalism.

3343 INTRODUCTION TO ENGLISH LINGUISTICS
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent.
Introduction to linguistics and to the history of language study.
Consideration of the differences between traditional grammar and
current linguistic theory. Description of English phonology and
semantics; discussion of such topics as language acquisition and
the teaching of reading.
3373 CHILDREN'S LITERATURE
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. A survey from a literary perspective of the kinds of reading available for children and young adolescents; poetry, drama, fairy tale, myth, biography, science fiction, mystery, fantasy, modern realism. Both the traditional "classics" and the current trends in children's literature will be considered.
4003 THE RESTORATION AND EIGHTEENTH-CENTURY POETS
(3-0) 3 hours credit. Prerequisite: ENG 2213 or 2223 or the equivalent.
An intensive study of the chief Restoration and eighteenth-century poets with emphasis on Dryden, Pope, Thomson, and Burns.

4013 THE METAPHYSICAL POETS
(3-0) 3 hours credit. Prerequisite: ENG 2213 or 2223 or the equivalent.
An intensive study of the chief metaphysical poets with emphasis on Donne, Herbert, Crashaw, Marvell, and Vaughan.
4023 THE ROMANTIC POETS
(3-0) 3 hours credit. Prerequisite: ENG 2213 or 2223 or the equivalent.

An intensive study of the chief British romantic poets with emphasis on Blake, Wordsworth, Coleridge, Byron, Keats, and Shelley.
4033 LITERARY GENRES
(3-0) 3 hours credit. Prerequisite: ENG 2213 or 2223 or the equivalent.
An intensive study of a single genre such as comedy, tragedy, allegory, satire, or epic. May be repeated for credit when topics vary.
4043 THE VICTORIAN POETS
(3-0) 3 hours credit. Prerequisite: ENG 2213 or 2223 or the equivalent.
An intensive study of the chief Victorian poets with emphasis on Tennyson, Browning, Arnold, and Hopkins.
4053 MODERN BRITISH AND AMERICAN POETRY
(3-0) 3 hours credit. Prerequisite: ENG 2213 or 2223 or the equivalent.
An intensive study of the chief modern poets with emphasis on Yeats, Eliot, Pound, Auden, Stevens, Williams, and Lowell.

## 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 ENGLISH
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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.

## 4973 SEMINAR FOR ENGLISH MAJORS

(3-0) 3 hours credit. Prerequisite: ENG 2223 or the equivalent. An undergraduate seminar limited to English majors in their final year. Intensive study of a genre, topic, or a period in English or American literature; content varies with each instructor.
4983 HONORS SEMINAR
(3-0) 3 hours credit. Prerequisite: Acceptance into English Honors program.
An undergraduate seminar limited to English majors in their final year who wish to graduate with honors in English. Intensive study of a genre, topic, or a period in English or American literature; content varies with each instructor.

## 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, including the 50 hours of General Education Requirements, is $120 .{ }^{19}$

All candidates for the degree must complete:
A. 33 semester hours in an interdisciplinary major, consisting of:

1. 9 semester hours of core courses:

CLA 2113 Greek and Roman Civilization
HUM 2013 Theory of Literature
HUM 3013 History of Ideas
2. 12 semester hours of upper-division work in Humanities, including HUM 4973, Seminar for Humanities Majors or HUM 4983, Honors Seminar.
3. 12 hours of upper-division work, 6 hours each in any two of the following: (a) classics, (b) philosophy, (c) a modern literature (Spanish, French, German, Russian, or English), including foreign language literature courses in translation, and culture and civilization courses.
B. 9 semester hours of support work in the form of an interdisciplinary course of studies, developed in conjunction with the Humanities Advisor, and designed to aid the student's integration of his or her program in terms of central themes, focal problems, or areas of historical interest. Normally courses are selected in history, history and theory of art and music, a second modern literature, classics, and philosophy.

[^41]A student whose grade-point average in the Interdisciplinary Humanities major prior to the beginning of his or her final year is 3.5 or above may petition the Humanities Advisor for permission to work for honors. A student seeking honors must complete HUM 4983 during his or her final year. To graduate with honors in Humanities, a student must have a final gradepoint average of 3.5 or above in the major.

## COURSE DESCRIPTIONS HUMANITIES (HUM)

## 1053 FINE ARTS - HUMANITIES

(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent.
A study of art in terms of form, meaning, and function and a review of the literature on the arts by artists, aestheticians, art critics, and art historians to enable the student to write as well as speak about viewing, understanding, and evaluating works of art and architecture.

## 2013 THEORY OF LITERATURE

(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent.
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.

## 3013 HISTORY OF IDEAS

(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent.
A survey of the development and influence of major philosophical, ethical, 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 the equivalent.
An interdisciplinary investigation of medieval thought and culture as exemplified in major works of literature, philosophy, theology, and history.

## 3033 THE RENAISSANCE IDEA OF MAN

(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent.
An 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 man's view of his world and of himself.

3053 THE ROMANTIC AGE
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. An 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.

## 3073 ORIENTAL LITERATURE

(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. A study of classic literary works of the Near and Far East, with emphasis on China, India, and Japan. Readings will be supplemented by some study of corresponding representations in the fine arts.

## 3113 THE HERO IN FICTION

(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. Critical study of the changing conception of the hero from classical antiquity to modern times; the impact of society on the metamorphosis of the hero as archetype, image, and symbol.

## 3213 THE CHRISTIAN CLASSICS

(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. 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.

## 3263 MODERN EUROPEAN NOVEL

(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent.
Critical study of selected Continental novelists of the last hundred years; emphasis on works which treat social or philosophical problems.
3413 MAN AND THE COSMOS
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. Critical interdisciplinary study of man's search for his place in the universe; the impact of scientific and philosophical inquiry on man's world-view as expressed in literature.
3423 INTERCULTURAL HUMANITIES PERSPECTIVES
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. Interdisciplinary study of differing visions of human nature and human values; emphasis upon questions of cultural diversity and cross-cultural influences. Topics include traditions in Far Eastern, Indic, African, Semitic, Pre-Columbian, and Western societies. May be repeated for credit when topics vary.
3513 FICTION, DRAMA, AND FILM
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. Interdisciplinary study of thematic, stylistic, technical, and formal interactions and correlations in literary, dramatic, and cinematic art.

## 3523 INTERACTIONS IN THE ARTS

(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. Interdisciplinary study of historical or thematic interactions and correlations in the literary, visual, and performing arts. Topics include specific themes in art within a national artistic expression, across cultural traditions and within particular periods. May be repeated for credit when topics vary.

## 3623 NATIONAL CULTURES AND CIVILIZATIONS

(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent.
The cultural life of the respective geographic regions and social strata of individual nations of Europe and America as reflected in, and interpreted by, its literary production. Individual topics include: France, Germany, Spain, Russia, the nations of SpanishAmerica. May be repeated for credit when topics vary.

## 4911-3 INDEPENDENT STUDY

1-3 hours credit. Prerequisite: Permission in writing (form available) of the instructor, the student's Advisor, 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.
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 within any one discipline will apply to a bachelor's degree.
4973 SEMINAR FOR HUMANITIES MAJORS
(3-0) 3 hours credit.
An undergraduate seminar limited to Humanities majors in their final year. Content varies with each instructor.
4983 HONORS SEMINAR
(3-0) 3 hours credit. Prerequisite: Acceptance into Humanities Honors program.
An undergraduate seminar limited to Humanities majors in their final year who wish to graduate with honors in Humanities. Content varies with each instructor.

## COURSE DESCRIPTIONS

## CLASSICS

(CLA)

## 2113 GREEK AND ROMAN CIVILIZATION <br> (3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. <br> An introduction to the intellectual and artistic achievements of

ancient Greece and Rome as exemplified in major works of literature, philosophy, and history.
CLASSICAL MYTHOLOGY
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent.
Critical study of myth in ancient Greek and Roman legend, drama, and folktale; attention to current theories of myth as applied to such writers as Homer, Hesiod, Ovid, and Vergil.
3033 HOMER AND THE TRAGIC VISION
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. Critical study of the tragic literature of ancient Greece with emphasis on the Iliad and the dramas of Aeschylus, Sophocles, and Euripides.
3043 THE COMIC EXPERIENCE
(3-0) 3 hours credit.Prerequisite: ENG 1023 or the equivalent.
Critical study of the comic literature of ancient Greece and Rome with emphasis on the works of Aristophanes, Menander, Plautus and Terence, Petronius, and Apuleius.
3063 THE CLASSICAL TRADITION
(3-0) 3 hours credit. Prerequisite: ENG 1033 or the equivalent. Critical survey of the Graeco-Roman tradition in Western literature, both Old and New World, with emphasis on the following forms: satire, elegy, pastoral, ode, and the lyric.

## COURSE DESCRIPTIONS COMMUNICATIONS (COM)

2113 PUBLIC SPEAKING
(3-0) 3 hours credit. Prerequisite: ENG 1043 or the equivalent.
Theory and practice of speaking in formal settings; preparation and adaption of materials for a variety of oral presentations.
2223 ORAL INTERPRETATION
(3-0) 3 hours credit. Prerequisite: ENG 1043 or the equivalent.
Theory and practice of oral delivery of readings. Selection and organization of materials for various audiences, and the techniques used for presentation, particularly oriented to the classroom teacher.

3083 COMMUNICATION THEORY
(3-0) 3 hours credit. Prerequisite: ENG 1043 or the equivalent.
Basic concepts for the study of the nature and process of human communication. Investigation of the theoretical literature ranging from intrapersonal factors in the individual to small group relationships and the public forms of communication.
3113 ARGUMENTATION AND DEBATE
(3-0) 3 hours credit. Prerequisite: ENG 1043 or the equivalent.
Training in the preparation and delivery of evidence in oral
presentation; analysis of argumentative and rhetorical works.
3873 SPEECH COMMUNICATION PEDAGOGY
(3-0) 3 hours credit. Prerequisite: COM 3083 or the equivalent.
Fundamentals of communication, with emphasis on the effective presentation of speech communication concepts for classroom teachers. Objectives, materials, and procedures in directing class and co-curricular activities.

## 4013 COMMUNICATION RESEARCH

(3-0) 3 hours credit. Prerequisite: COM 3083 or the equivalent.
The role of theory and research; survey of major schools of criticism; evaluation of current rhetorical and communication studies.

## COURSE DESCRIPTIONS

 PHILOSOPHY (PHI)
## 2013 BASIC PHILOSOPHICAL PROBLEMS

(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. An 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.

## 2023 INTRODUCTION TO ANCIENT PHILOSOPHY

(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent.
An 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.

## 2033 INTRODUCTION TO MODERN PHILOSOPHY

(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent. An 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 world-view.
2043 INTRODUCTORY LOGIC
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent.
Study of the principles of valid argument: definition, deductive and inductive inference, fallacies.
3013 PHILOSOPHY OF RELIGION
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent.
Examination of traditional religious beliefs and such concepts as faith and knowledge, mysticism and theology, existence and the 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 or PHI 2043 or the 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 the 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.

3063 WORLD RELIGIONS
(3-0) 3 hours credit. Prerequisite: ENG 1023 or the equivalent.
An examination of the origins, teachings, and development of the world's chief religious movements, including Hinduism, Buddhism, Shinto, Confucianism, Taoism, Sikhism, Jainism, Islam, Zoroastrianism, Judaism, and Christianity.
3073 ORIENTAL PHILOSOPHY
(3-0) 3 hours credit. Prerequisite: ENG 1023 or PHI 2013, or the equivalent.
Examination of the philosophical and religious traditions of the East, with emphasis on China, India, and Japan.

## 3213 ETHICS

(3-0) 3 hours credit. Prerequisite: ENG 1023 or PHI 2013 or the equivalent.
Examination of ethical theory and of the nature and scope of ethical discourse with emphasis upon the concepts of the good, human happiness, self-realization, virtue, duty, responsibility, and the means-ends relationship; reading of selected classical and contemporary texts.
3223 APPROACHES TO KNOWLEDGE AND REALITY
(3-0) 3 hours credit. Prerequisite: PHI 2013 or PHI 2043 or the equivalent.
Examination of the interrelations between 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, meaning and existence; reading of selected classical and contemporary texts.

## 3313 CONTEMPORARY PHILOSOPHY

(3-0) 3 hours credit. Prerequisite: PHI 2013 or PHI 2043 or the equivalent.
An intensive study of one or more of the major branches of twentieth-century thought: analytic philosophy, phenomenology, existentialism, and process philosophy. May be repeated for credit when topics vary.
(3-0) 3 hours credit. Prerequisite: PHI 2013 or PHI 2043 or the equivalent.
Critical reading and comparison of the chief works of two or more major philosophers. The philosophers studied vary from semester to semester and may be selected from one or more of the following: Plato, Aristotle, Augustine, Aquinas, Descartes, Spinoza, Locke, Hume, Kant, Hegel, and Marx. May be repeated for credit when topics vary.

## DIVISION OF FOREIGN LANGUAGES

The Bachelor of Arts Degrees in Spanish, French, and German offered by the Division of Foreign Languages have three main objectives: 1) to encourage mastery of a foreign language in its social, cultural, literary and linguistic dimensions; 2) to provide students a solid background in liberal education through flexibly combined courses; and 3) to prepare students in foreign language and related areas for effective and rewarding careers. Service to the community and academic excellence are the guiding measures of these objectives.

Courses in the foreign language areas of the Division normally are taught in the foreign language. However, the Division offers courses in foreign literatures in English translation which support areas of the Humanities and which provide the student with a variety of possibilities with which to fulfill general electives.

The Division of Foreign Languages also offers support courses in Linguistics and Russian. ${ }^{20}$ Elective courses in Linguistics are offered to give students structural and historical perspective about the specific language(s) studied, as well as about language in general.

Courses in the Humanities which are comparative and multidisciplinary in nature are provided by the Division under the general designation of Comparative Studies in the Humanities (CHS).

To enable the student to develop skills in a foreign language at least at an intermediate level of proficiency and to introduce the student to the concepts related to the study of language and its structure, the Division of Foreign Languages offers the first semesters of course work in foreign language in multipletrack sequences. Completion of the first three courses, or their equivalent, in each track satisfies The University's foreign language requirement for all bachelor's degrees.

Prior to enrolling in a foreign language in which the student has prior knowledge, he or she is encouraged to take one of the

[^42]examinations in that language available to him through the Testing Center. All or part of the foreign language requirement may be completed and credit earned by examination. ${ }^{21}$

In each of the languages, two tracks are offered. In French, German and Russian there are: 1) a four-skill track designed to develop abilities in understanding, speaking, reading, and writing and 2) a reading track designed to concentrate on development of reading ability. In Spanish, in addition to the four-skill track, the Division offers a sequence of courses in Spanish for Spanish speakers which builds on existing language abilities. Within each language students may not transfer from one track to another.

[^43]
## BACHELOR OF ARTS DEGREE IN FRENCH

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, is $120{ }^{22}$

All candidates for the degree must complete:
A. 30 semester hours in the major, all of which must be at the upper-division level.

1. 15 semester hours of required courses are:

LNG 3813 Introduction to Linguistics
FRN 3023 Advanced Composition
FRN 3313 Introduction to French Literary Studies
FRN 3413 French Literature and Culture, 1000-1700
FRN 3423 French Literature and Culture, 1700-Present
2. 15 additional semester hours are required in French.
B. 18 semester hours of support work, 9 of which must be at the upper-division level, in a specific support area or in selected areas to be chosen in consultation with the student's Advisor.
C. 22 semester hours of free electives.

## COURSE DESCRIPTONS

FRENCH
(FRN)

## 1013 ELEMENTARY FRENCH I

(2-2) 3 hours credit.
Fundamentals of French, aimed at developing abilities in understanding, speaking, reading, and writing. Students receiving credit for 1013 may not receive credit for 1113 .
1023 ELEMENTARY FRENCH II
(2-2) 3 hours credit. Prerequisite: FRN 1013 or the equivalent. Fundamentals of French, aimed at developing abilities in understanding, speaking, reading, and writing. A continuation of FRN 1013. Students receiving credit for 1023 may not receive credit for 1123.

[^44](3-0) 3 hours credit.
Development of reading techniques; stress on syntactical structures and vocabulary acquisition. Progression through various forms of written expression. Students receiving credit for 1113 may not receive credit for 1013.

## 1123 READING FRENCH FOR BEGINNERS II

(3-0) 3 hours credit. Prerequisite: FRN 1113 or the equivalent. Development of reading techniques; stress on syntactical structures and vocabulary acquisition. Progression through various forms of written expression. A continuation of FRN 1113. Students receiving credit for 1123 may not receive credit for 1023.
2013 INTERMEDIATE FRENCH I
(2-2) 3 hours credit. Prerequisite: FRN 1023 or the equivalent. Continued skill development in comprehension, speaking, reading and writing French. Review of French grammar, and development of reading techniques. Additional exposure to French culture. Increased vocabulary, oral practice and readings in areas such as the humanities and social sciences, health, business, communication, education and the natural sciences. Students receiving credit for 2013 may not receive credit for 2113.
2023 INTERMEDIATE FRENCH II
(2-2) 3 hours credit. Prerequisite: FRN 2013 or the equivalent.
Continued skill development in comprehension, speaking, reading and writing French. Review of French grammar, and development of reading techniques. Additional exposure to French culture. Increased vocabulary, oral practice and readings in areas such as the humanities and social sciences, health, business, communication, education and the natural sciences. A continuation of FRN 2013. Students receiving credit for 2023 may not receive credit for 2123.

## 2113 INTERMEDIATE FRENCH READING I

(3-0) 3 hours credit. Prerequisite: FRN 1123 or the equivalent. Readings in various disciplines aimed at familiarity with different types of vocabulary and language structure. Students receiving credit for 2113 may not receive credit for 2013.
2123 INTERMEDIATE FRENCH READING II (3-0) 3 hours credit. Prerequisite: FRN 2113 or the equivalent. Readings in various disciplines aimed at familiarity with different types of vocabulary and language structure. Further study of lexical and syntactical matters aimed at increased speed and
comprehension in reading. A continuation of FRN 2113. Students receiving credit for 2123 may not receive credit for 2023
3013 APPLIED FRENCH LINGUISTICS AND PHONETICS
(3-1) 3 hours credit. Prerequisite: LNG 3813.
Practical application of linguistic principles to the teaching of French. Attention given to problems involving the contrasting structures of French and English. Exercises in sound discrimination and phonetic transcription based on the articulatory description of standard French.
3023 ADVANCED COMPOSITION
(3-0) 3 hours credit. Prerequisite: FRN 2023 or FRN 2123.
Selected grammar review. Theme writing and diagnosis of the grammatical problems of individual students.
3033 ADVANCED CONVERSATION
(3-0) 3 hours credit. Prerequisite: FRN 2023 or FRN 2123.
Conversation correlated with readings and reports, aimed at increasing oral fluency by vocabulary expansion and the active use of forming grammatical sentences. Attention given to the students' pronunciation, word choice, and syntax. Topics range from everyday life to discussion of a variety of written texts.
3113 INTRODUCTION TO FRENCH LINGUISTICS
(3-0) 3 hours credit. Prerequisite: FRN 2023 or FRN 2123.
Application to French of the basic principles of analysis and description of language structure. Attention given to structural regularities at the levels of sound, word formation, and syntax; also to the relationship between some irregularities and historical change and to dialectal variation.

3313 INTRODUCTION TO FRENCH LITERARY STUDIES (3-0) 3 hours credit. Prerequisite: FRN 2023 or FRN 2123.
An introduction to the concept and functions of literature through representative masterpieces of epics, poetry, drama, and fiction written in French. Critical terminology, general literary principles and theory. Plot, design, pattern, character and type, image and archetype, metrics and prosody. Traditional literary genres and their structure. Emphasis on the traits, problems and solutions common to the discipline of literary studies.

3333 FRENCH LITERATURE IN ENGLISH TRANSLATION
(3-0) 3 hours credit.
May not be applied to a major in French. Major works of French Literature, themes, genres, movements. May be repeated for credit when topics vary.

3413 FRENCH LITERATURE AND CULTURE, 1000-1700
(3-0) 3 hours credit. Prerequisite: FRN 2013 or FRN 2113.
Selected masterpieces from the Middle Ages to 1700 are studied as examples of central moments in French culture and literary history. The course presents the shape of French civilization emphasizing the major periods, styles, literary movements,
generations, the political, social and philosophical trends in each epoch and the major figures.
3423 FRENCH LITERATURE AND CULTURE, 1700-PRESENT (3-0) 3 hours credit. Prerequisite: FRN 2013 or FRN 2113.
Selected masterpieces from 1700 to the present are studied as examples of central moments in French culture and literary movements, generations, the political, social and philosophical trends in each epoch and the major figures.
3513 MEDIEVAL FRENCH LITERATURE
(3-0) 3 hours credit. Prerequisite: FRN 3313.
Poetic genres and poetic languages. The Song of Roland and epic poetry. Chretien de Troyes and the "Roman Courtois." Origin and development of lyrical forms from Provencal poetry to Villon. Romance of the Rose and the love romance. Aucassin and Nicolette and narrative prose. Origins and development of the theater.

3523 FRENCH RENAISSANCE AND BAROQUE
(3-0) 3 hours credit. Prerequisite: FRN 3313.
Definition of terms. Examination of the Renaissance ideal. The thinkers: Budé, Lefevre d'Etaples, Rabelais, Montaigne. The poets: Marot, Ecole Lyonnaise, the Pléiade. The Religious Question. D'Aubigné and the poets of the Baroque. The theater and the Baroque: from Garnier to Rotrou. The Mémoires: Brantome, de Retz.
3533 THE CLASSICAL MOMENT - THE GENERATION OF 1660 (3-0) 3 hours credit. Prerequisite: FRN 3313.
Definition of French classicism. Examination of its style and major themes. Study of major and minor genres. Role of the court and salon life. Major texts of: Moliere, Racine, La Fontaine, Bossuet, Pascal, La Bruyere, Fenelon, etc.

3543 THE FRENCH ENLIGHTENMENT
(3-0) 3 hours credit. Prerequisite: FRN 3313.
Literature and philosophy. The encyclopedists. The key figures and their major works: Montesquieu, Voltaire, Diderot, Rousseau.
3553 FRENCH NINETEENTH CENTURY: ROMANTICISM, REALISM, NATURALISM
(3-0) 3 hours credit. Prerequisite: FRN 3313.
Definition of each literary and cultural movement. The history, intellectual positions, central themes, key figures. Analysis of the major representative works in all genres: Chateaubriand, Lamartine, Hugo, Balzac, Flaubert, Zola, etc.
3563 THE BELLE EPOQUE: 1885-1914
(3-0) 3 hours credit. Prerequisite: FRN 3313.
The fin de siecle aesthetic and Art Nouveau. Cosmopolitanism versus nationalism. The Dreyfus Affair. The role of Paris. The inter-relations of the arts. The divergence between Right Bank and Left Bank literature. The sense of the modern era: renewal and nostalgia. Writers: Huysmans, Barrés, Gide, Péguy, Valéry-

Larbaud, Proust. Poets and dramatists: Verhaeren, Mallarmé, Caludel, Valéry, Segalen, St. John Perse, Apollinaire.
THE FRANCOPHONIC WORLD
(3-0) 3 hours credit. Prerequisite: FRN 3313.
Negritude in Africa and the Caribbean, Haiti, Quebec and Louisiana. The study of major literary-cultural movements, the major writers and the masterpieces. Senghor, Césaire, Damas, Ouologuem, Roumain, Saint-Denys-Garneau, Anne Hébert.
4413 THE FRENCH NOVEL
(3-0) 3 hours credit. Prerequisite: FRN 3313.
The rise and growth of the chanson de geste and its passage from the novel in verse to the novel in prose. Narrative techniques, topoi, thematics, narrative strategies, point of view, character analysis, philosophical and social commentary.
4423 THE FRENCH LYRIC
(3-0) 3 hours credit. Prerequisite: FRN 3313.
Basic fixed forms in French verse: ballad, rondeau, sonnet, etc. The history, rise, flowering, fall and rebirth of these forms in French. Emphasis on French verse from Baudelaire to the present. Prodsy, grammar and syntax, rhetorical usages and traditional myths and metaphors. The prose poem and vers libre.
4433 THE FRENCH THEATER
(3-0) 3 hours credit. Prerequisite: FRN 3313.
A critical examination of the various theories of tragedy and comedy. The different genres within French comedy and tragedy. History and growth of the French comic and tragic traditions from the Middle Ages to the Present. Stagecraft. Production. Textual analysis from both literary and theatrical points of view.
4443 THE FRENCH SHORT NARRATIVE
(3-0) 3 hours credit. Prerequisite: FRN 3313.
A critical survey of the growth, transmutation and variety of short fiction in French: fabliaux, lais, contes and nouvelles. Investigation of the roles of oral tradition and humanistic tradition in nurturing the emergence of the modern short story with Merimee. The significance of the supernatural in the short story.
4513 CONTEMPORARY FRENCH CULTURE AND LITERATURE FROM 1945-PRESENT
(3-0) 3 hours credit. Prerequisite: FRN 3313.
From the existential novel of Camus to the New Novel of Butor and Robbe-Grillet, etc., to the New Novel of Sollers, Wittig, etc. The prose poetry of Ponge, Char, St. John-Perse. The new poetic movements: poesie concrete, poesie lettriste. The theater of the Absurd and its aftermath (Ionesco, Genet, Beckett, Arrabal). The new critical wave from Barthes to Kristeva: Communications, Tel Quel, Semiotica.
4813 GREAT MASTERPIECES IN FRENCH LITERATURE (3-0) 3 hours credit. Prerequisite: FRN 3313.
Only one supreme masterpiece is analyzed, studied and dis-
cussed per semester. Emphasis is placed on the use of various contemporary critical methodologies to examine and interpret the text. Examples: The Essais of Montaigne, the Roman de la Rose, The Grail Cycle, Rabelais, Les Tragiques of d'Aubigne, the Memories of Saint-Simon, Les Fleurs du Mal of Baudelaire, A La Recherche Du Temps Perdu of Proust. May be repeated for credit when topics vary.
4823 GREAT THEMES IN FRENCH LITERATURE
(3-0) 3 hours credit. Prerequisite: FRN 3313.
This course brings together important texts about some central theme. Examples: love, evil, utopias, the vision of society, the role of women, the spiritual quest, etc. May be repeated for credit when topics vary.

## 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 FRENCH

(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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.

## BACHELOR OF ARTS DEGREE IN GERMAN

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, is $120 .{ }^{23}$

All candidates for the degree must complete:
A. 30 semester hours in the major, all of which must be at the upper-division level.

1. 21 semester hours of required courses are:

GER 3013 Phonetics and Pronunciation
GER 3023 Advanced Composition
GER 3113 Introduction to German Linguistics or
GER 3123 Applied German Linguistics
GER 3313 Introduction to German Literary Studies
GER 3323 Introductory Readings in German Literature
GER 3613 Contemporary Germany
GER 3623 German Culture and Civilization
2. 9 additional semester hours are required in German, to be distributed, normally, in one of the following ways: a. 1 literature course and 2 language courses or b. 2 literature courses and 1 language course.
B. 18 semester hours of support work, 9 of which must be at the upper-division level, in a specific support area or in selected areas to be chosen in consultation with the student's Advisor.
C. 22 semester hours of free electives.

## COURSE DESCRIPTIONS <br> GERMAN <br> (GER)

## 1013 ELEMENTARY GERMAN I

(2-2) 3 hours credit.
Fundamentals of German aimed at developing abilities in speaking, understanding, reading and writing. Students receiving credit for 1013 may not receive credit for 1113 .

[^45]
## 1023 ELEMENTARY GERMAN II

(2-2) 3 hours credit. Prerequisite: GER 1013 or the equivalent. Fundamentals of German, aimed at developing abilities in speaking, understanding, reading, and writing. A continuation of GER 1013. Students receiving credit for 1023 may not receive credit for 1123.

## 1113 READING GERMAN FOR BEGINNERS I

(3-0) 3 hours credit.
Development of reading techniques; stress on syntactical structures and vocabulary acquisition. Progression through various forms of written expression. Students receiving credit for 1113 may not receive credit for 1013.
1123 READING GERMAN FOR BEGINNERS II
(3-0) 3 hours credit. Prerequisite: GER 1113 or the equivalent. Development of reading techniques; stress on syntactical structures and vocabulary acquisition. Progression through various forms of written expression. A continuation of GER 1113. Students receiving credit for 1123 may not receive credit for 1023.

2013 INTERMEDIATE GERMAN I
(2-2) 3 hours credit. Prerequisite: GER 1123 or the equivalent. Continued skill development in comprehension, speaking, reading and writing German. Review of German grammar, and development of reading techniques. Additional exposure of Germanic culture. Increased vocabulary, oral practice and readings in areas such as the humanities and social sciences, health, business, communication, education and the natural sciences. Students receiving credit for 2013 may not receive credit for 2113.

## 2023 INTERMEDIATE GERMAN II

(2-2) 3 hours credit. Prerequisite: GER 2013 or the equivalent. Continued skill development in comprehension, speaking, reading and writing German. Review of German grammar, and development of reading techniques. Additional exposure to Germanic culture. Increased vocabulary and oral practice and readings in areas such as the humanities and social sciences, health, business, communication, education and the natural sciences. A continuation of GER 2013. Students receiving credit for 2023 may not receive credit for 2123.

## 2113 INTERMEDIATE GERMAN READING I

(3-0) 3 hours credit. Prerequisite: GER 1123 or the equivalent. Readings in various disciplines aimed at familiarity with different types of vocabulary and language structure. Students receiving credit for 2113 may not receive credit for 2013.

## 2123 INTERMEDIATE GERMAN READING II

(3-0) 3 hours credit. Prerequisite: GER 2113.
Readings in various disciplines aimed at familiarity with different types of vocabulary and language structure. Further study of lexical and syntactical matters aimed at increased speed and comprehension in reading. A continuation of GER 2113.
comprehension in reading. A continuation of GER 2113. Students receiving credit for 2123 may not receive credit for 2023.

## 3013 PHONETICS AND PRONUNCIATION

(3-1) 3 hours credit. Prerequisite: GER 2023 or GER 2123.
Intensive patterned pronunciation drills and exercises in sound discrimination and transcription, based on detailed articulatory description of various dialects of German.

## 3023 ADVANCED COMPOSITION

(3-0) 3 hours credit. Prerequisite: GER 2023 or GER 2123.
Selected grammar review. Theme writing and diagnosis of the grammatical problems of individual students.
3033 ADVANCED CONVERSATION
(3-0) 3 hours credit. Prerequisite: GER 2023 or GER 2123.
Conversation correlated with readings and reports, aimed at increasing oral fluency by vocabulary expansion and the active use of forming grammatical sentences. Attention given to the student's pronunciation, word choice, and syntax. Topics range from oral everyday life themes to discussion of a variety of written texts.

3043 RHETORIC AND POETICS
(3-0) 3 hours credit. Prerequisite: GER 3033.
A brief introduction to the art of orderly and persuasive discourse. Descriptions of figures of speech, topoi and general structure of the oration. Meter and melody in poetic diction.
3113 INTRODUCTION TO GERMAN LINGUISTICS
(3-0) 3 hours credit. Prerequisite: GER 2023 or GER 2123.
Application to German of the basic principles of analysis and description of language structure. Attention given to structural regularities at the levels of sound, word formation, and syntax; also to the relationship between some irregularities and historical change and to dialectal variation.

## 3123 APPLIED GERMAN LINGUISTICS

(3-0) 3 hours credit. Prerequisite: GER 2023 or GER 2123.
Practical application of linguistic principles to the teaching of German. Attention given to problems involved with the contrast between the structures of German and English.
3313 INTRODUCTION TO GERMAN LITERARY STUDIES (3-0) 3 hours credit. Prerequisite: GER 2023 or GER 2123.
The concept of literature. Function of literature. Literary genres and their structure. Literary periodification and literary history. Literature. Stylistics. Linguistics.
3323 INTRODUCTORY READINGS IN GERMAN LITERATURE (3-0) 3 hours credit. Prerequisite: GER 2023 or GER 2123. An elementary sampling of a number of literary masterpieces through periods, genres and styles.

## GERMAN LITERATURE IN ENGLISH TRANSLATION

(3-0) 3 hours credit.
May not be applied to a major or minor in German. Major works of German literature. Themes, genres, and movements. May be repeated for credit when topics vary.
3613 CONTEMPORARY GERMANY
(3-0) 3 hours credit. Prerequisite: GER 2023 or GER 2123.
Problems and conflicts determining the cultural development of contemporary Germany. Ethnic, social, political, economic and cultural characteristics as seen mainly through the essay. Intellectual currents and the role of the intellectual leaders in forming the cultural expression of Germany.

## 3623 GERMAN CULTURE AND CIVILIZATION

(3-0) 3 hours credit. Prerequisite: GER 2023 or GER 2123.
The cultural life of the respective geographic regions and social strata of Germany as reflected in and interpreted by its literary production, especially the novel.

## 4113 GERMAN DIALECTS

(3-0) 3 hours credit. Prerequisite: GER 3313.
Survey of the development and the salient characteristics of the dialects of the German speaking world.
4313 MEDIEVAL GERMAN LITERATURE
(3-0) 3 hours credit. Prerequisite: GER 3313.
The languages of literature: oral and written. Genres and themes. The Nibelungen cycle and the Nibelungenlied. Lyric poetry and its forms. The courtly Romance and the Tristan and Isolde myth. Origins of the drama. (Old High German texts will be read in Modern German or English translations.)
4323 RENAISSANCE AND BAROQUE LITERATURE (3-0) 3 hours credit. Prerequisite: GER 3313.
Styles and ideologies; definitions and correlations. The Reformation, the Counterreformation and their influence on the creative process. Emphasis on Luther, Grimmelshausen, Gryphius. German Baroque and Romanic Baroque.

## 4333 GERMAN ENLIGHTENMENT

(3-0) 3 hours credit. Prerequisite: GER 3313.
The dawn of Classicism. Rediscovery and interpretation of Classical Antiquity. Wieland, Lessing, Herder, the Schlegels, and the formation of a new concept of literature.
4343 EARLY TWENTIETH CENTURY CRISIS
(3-0) 3 hours credit. Prerequisite: GER 3313.
Study of the emergence of modern literary Stimmung. Readings of Hauptman, George, Rilke, and a survey of Naturalism, Impressionism and Symbolism.
4353 GOETHE
(3-0) 3 hours credit. Prerequisite: GER 3313.
Readings of Goethe's Faust and Werther; analysis of their structures and themes with particular consideration to their
ideological frameworks, symbolic meanings and their subsequent influence.

4363 SCHILLER
(3-0) 3 hours credit. Prerequisite: GER 3313.
Readings and analysis of Schiller's Die Rauber, Kabale und Liebe, and Don Carlos. Schiller's correspondence with Goethe as a statement of their aesthetic development.

## 4373 ROMANTICISM

(3-0) 3 hours credit. Prerequisite: GER 3313.
Its ideology, philosophy, literary theories. Its European expansion. Genres, themes, authors, works. Emphasis on Novalis, Heine, Holderlin, Von Kleist, Lenau, and Hoffmann.
4383 THE NOUVELLE
(3-0) 3 hours credit. Prerequisite: GER 3313.
Structure, themes, authors. Its relations to the short story and the "nouvelle."
4393 CONTEMPORARY GERMAN LITERATURE I
(3-0) 3 hours credit. Prerequisite: GER 3313.
German Expressionism and its influence on genres, themes and structures. Kafka, Thomas Mann, G. Grass and prose fiction.
4403 CONTEMPORARY GERMAN LITERATURE II
(3-0) 3 hours credit. Prerequisite: GER 4393.
Brecht, Durrenmat and the drama. G. Benn and poetry. Foundations of German Literaturwissenshaft: Walzel, Jolles, Imgarden, Kayser, and Staiger.
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 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 GERMAN

(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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.

## BACHELOR OF ARTS DEGREE IN RUSSIAN ${ }^{24}$

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, is $120 .{ }^{25}$

All candidates for the degree must complete:
A. 30 semester hours in the major, all of which must be at the upper-division level.

1. 21 semester hours of required courses are:

RUS 3013 Phonetics and Pronunciation
RUS 3023 Advanced Composition
RUS 3113 Introduction to Russian Linguistics
RUS 3313 Introduction to Russian Literary Studies
RUS 3323 Introductory Readings in Russian Literature
RUS 3613 Contemporary Russia
RUS 3623 Russia-Culture and Civilizations
2. 9 additional semester hours are required in Russian, to be distributed, normally, in one of the following ways: a. 1 literature and 2 language courses or b. 2 literature courses and 1 language course.
B. 18 semester hours of support work, 9 of which must be at the upper-division level, in a specific support area or in selected areas to be chosen in consultation with the student's Advisor.
C. 22 semester hours of free electives.

## COURSE DESCRIPTIONS

## RUSSIAN

(RUS)
1013 ELEMENTARY RUSSIAN I
(2-2) 3 hours credit.

[^46]Fundamentals of Russian, aimed at developing abilities in speaking, understanding, reading, and writing.
1023 ELEMENTARY RUSSIAN II
(2-2) 3 hours credit. Prerequisite: RUS 1013 or the equivalent. Fundamentals of Russian, aimed at developing abilities in speaking, understanding, reading and writing. A continuation of RUS 1013.

## 2013 INTERMEDIATE RUSSIAN I

(2-2) 3 hours credit. Prerequisite: RUS 1023 or the equivalent. Continued skill development in comprehension, speaking, reading and writing Russian. Review of Russian grammar, and development of reading techniques. Additional exposure to Russian culture. Increased vocabulary, oral practice and readings in areas such as the humanities and social sciences, health, business, communication, education and the natural sciences.

2023 INTERMEDIATE RUSSIAN II
(2-2) 3 hours credit. Prerequisite: RUS 2013 or the equivalent.
Continued skill development in comprehension, speaking, reading and writing Russian. Review of Russian grammar, and development of reading techniques.
Expansion of reading and writing capabilities. Additional exposure to Russian culture. Increased vocabulary and oral practice and readings in areas such as the humanities and social sciences, health, business, communication, education and the natural sciences. A continuation of RUS 2013.

3013 PHONETICS AND PRONUNCIATION
(3-1) 3 hours credit. Prerequisite: RUS 2023.
Intensive patterned pronunciation drills and exercises in sound discrimination and transcription, based on detailed articulatory description of various dialects of Russian.

## 3023 ADVANCED COMPOSITION

(3-0) 3 hours credit. Prerequisite: RUS 2023 or RUS 2123.
Selected grammar review. Theme writing and diagnosis of the grammatical problems of individual students.
3033 ADVANCED CONVERSATION
(3-0) 3 hours credit. Prerequisite: RUS 2023.
Conversation correlated with readings and reports aimed at increasing oral fluency by vocabulary expansion and the active use of forming grammatical sentences. Attention given to the students' pronunciation, word choice, and syntax. Topics range from oral everyday life themes to discussion of a variety of written texts.
3113 INTRODUCTION TO RUSSIAN LINGUISTICS
(3-0) 3 hours credit. Prerequisite: RUS 2023.
Application to Russian of the basic principles of analysis and description of language structure. Attention given to structural regularities at the levels of sound, word formation, and syntax;
also the relationship between some irregularities and historical change and to dialectal variation.
3313 INTRODUCTION TO RUSSIAN LITERARY STUDIES (3-0) 3 hours credit. Prerequisite: RUS 2023.
The concept of literature. Function of literature. Literary genres and their structure. Literary periodification and literary history. Stylistics and linguistics.
3323 INTRODUCTORY READINGS IN RUSSIAN LITERATURE (3-0) 3 hours credit. Prerequisite: RUS 2023.
An elementary sampling of a number of literary masterpieces through periods, genres and styles.
3333 RUSSIAN LITERATURE IN ENGLISH TRANSLATION (3-0) 3 hours credit.
May not be applied to a major in Russian. Major works of Russian literature, themes, genres, movements. May be repeated for credit when topics vary.
3613 CONTEMPORARY RUSSIA
(3-0) 3 hours credit. Prerequisite: RUS 2023.
Problems and conflicts determining the cultural development of contemporary Russia. Ethnic, social, political, economic and cultural characteristics as seen mainly through the essay. Intellectual currents and the role of the intellectual leaders in forming the cultural expression of Russia.
3623 RUSSIA: CULTURE AND CIVILIZATIONS
(3-0) 3 hours credit. Prerequisite: RUS 2023.
The cultural life of the respective geographic regions and social strata of Russia as reflected in and interpreted by its literary production, especially the novel.
4323 THE RUSSIAN FOLKTALE AND THE RUSSIAN BALLAD (3-0) 3 hours credit. Prerequisite: RUS 3313.
A study of two main literary forms in oral tradition. Their themes and structures. Their influence on non-traditional written literature. Survey of the critical theories, from Romantic philology to Modern Formalism, attempting an analysis of the folktale and the ballad.
4333 NINETEENTH CENTURY RUSSIAN LITERATURE
(3-0) 3 hours credit. Prerequisite: RUS 3313.
Periods, genres, styles and authors. Literature and social structure: bourgeois and antibourgeois undercurrents. Literary creation and social status in a caste society. Selected readings from Fet, Pushkin, Tolstoy, Dostoyevski, Chekhov, Beli, and Lermontov.

## 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 then 6 hours of independent study, regardless of discipline, will apply to a bachelor's degree.
4953 SPECIAL STUDIES IN RUSSIAN
(3-0) 3 hours credit. Prerequisite: Consent of instructor. An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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.

## BACHELOR OF ARTS DEGREE IN SPANISH

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, is $120 .{ }^{26}$
All candidates for the degree must complete:
A. 30 semester hours in the major, all of which must be at the upper-division level.

1. 21 semester hours of required courses are:

LNG 3813 Introduction to Linguistics and SPN 3113 Introduction to Spanish Linguistics
or
SPN 3013 Phonetics and Pronunciation and
SPN 3123 Applied Spanish Linguistics
SPN 3023 Advanced Composition
SPN 3313 Introduction to Hispanic Literary Studies
SPN 3323 Introductory Readings in Hispanic Literatures

SPN 3613 Spanish Culture and Civilization or SPN 3623 Spanish-American Culture and Civilization
SPN 3653 Contemporary Spain or SPN 3663 Contemporary Spanish America
2. 9 additional semester hours are required in Spanish, to be distributed, normally, in at least two of the three areas of culture, language and literature.
B. 24 semester hours of support work, 9 of which must be at the upper-division level, in a specific support area or in selected areas to be chosen in consultation with the student's Advisor.
C. 16 semester hours of free electives.

[^47]
## COURSE DESCRIPTIONS

## SPANISH

(SPN)

## 1013 ELEMENTARY SPANISH I

(2-2) 3 hours credit.
Fundamentals of Spanish, aimed at developing abilities in understanding, speaking, reading, and writing. Students receiving credit for 1013 may not receive credit for 1213.

1023 ELEMENTARY SPANISH II
(2-2) 3 hours credit. Prerequisite: SPN 1013 or the equivalent.
Fundamentals of Spanish, aimed at developing abilities in understanding, speaking, reading, and writing. A continuation of SPN 1013. Students receiving credit for 1023 may not receive credit for 1213.

## 1213 SPANISH FOR SPANISH SPEAKERS I

(2-2) 3 hours credit.
Development of the language proficiency of Spanish speakers building on existing abilities through in-depth practice in speaking, reading, and writing Spanish. Students receiving credit for 1213 may not receive credit for SPN 1013 and/or SPN 1023.
1223 SPANISH FOR SPANISH SPEAKERS II
(2-2) 3 hours credit. Prerequisite: SPN 1213.
Development of the language proficiency of Spanish speakers building on exisiting abilities through in-depth practice in speaking, reading, and writing Spanish. A continuation of SPN 1213.
Students receiving credit for 1223 may not receive credit for 2013.
2013 INTERMEDIATE SPANISH I
(2-2) 3 hours credit. Prerequisite: SPN 1023 or the equivalent.
Continued skill development in comprehension, speaking, reading and writing Spanish. Review of Spanish grammar and development of reading techniques. Additional exposure to Hispanic cultures. Increased vocabulary, oral practice and readings in areas such as the humanities and social sciences, health, business, communication, education and the natural sciences. Students receiving credit for 2013 may not receive credit for 1223.
2023 INTERMEDIATE SPANISH II
(2-2) 3 hours credit. Prerequisite: SPN 2013 or the equivalent.
Continued skill development in comprehension, speaking, reading and writing Spanish. Review of Spanish grammar and development of reading techniques. Additional exposure to Hispanic cultures. Increased vocabulary and oral practice and readings in areas such as the humanities and social sciences, health, business, communication, education and the natural sciences. A continuation of SPN 2013. Students receiving credit for 2023 may not receive credit for 2213.
2213 SPANISH FOR SPANISH SPEAKERS III
(2-2) 3 hours credit. Prerequisite: SPN 1223.
Development of the language proficiency of Spanish speakers
building on existing abilities through in-depth practice in speaking, reading and writing Spanish. Increased emphasis on language variation: stylistic (i.e., formal vs. colloquial) and geographical (Southwest United States vs. other dialects, such as Mexico, the rest of Spanish America, and Spain). A continuation of SPN 1223. Students receiving credit for 2213 may not receive credit for 2023.

## 3013 PHONETICS AND PRONUNCIATION

(3-0) 3 hours credit. Prerequisite: SPN 2023 or SPN 2213.
Intensive patterned pronunciation drill and exercises in sound discrimination and transcription, based on detailed articulatory description of various dialects of Spanish.
3023 ADVANCED COMPOSITION
(3-0) 3 hours credit. Prerequisite: SPN 2023.
Selected grammar review. Theme writing and diagnosis of the grammatical problems of individual students.
3033 ADVANCED CONVERSATION
(3-0) 3 hours credit. Prerequisite: SPN 2023 or SPN 2213.
Conversation correlated with readings and reports, aimed at increasing oral fluency by vocabulary expansion and the active use of forming grammatical sentences. Attention given to the students' pronunciation, word choice, and syntax. Topics range from oral everyday life themes to discussion of a variety of written texts.

## 3043 ELEMENTS OF SPANISH RHETORIC

(3-0) 3 hours credit. Prerequisite: SPN 3033.
An introduction to the art of orderly and persuasive discourse. Description of figures of speech, topoi and general structure of the oration. Exercises in Spanish oratory.

## 3053 CREATIVE WRITING: POETRY

(3-0) 3 hours credit. Prerequisite: SPN 3023 or consent of instructor.
Basic fundamentals and extensive practice in creative writing in poetry in Spanish.
3063 CREATIVE WRITING: PROSE
(3-0) 3 hours credit. Prerequisite: SPN 3023 or consent of instructor.
Basic fundamentals and extensive practice in creative writing in prose in Spanish.

## 3113 INTRODUCTION TO SPANISH LINGUISTICS

(3-0) 3 hours credit. Prerequisite: SPN 2023 or SPN 2213.
Application to Spanish of the basic principles of analysis and description of language structure. Attention given to structural regularities at the levels of sound, word formation, and syntax; also to the relationship between some irregularities and historical change and to dialectal variation.
3123 APPLIED SPANISH LINGUISTICS
(3-0) 3 hours credit. Prerequisite: SPN 2023 or SPN 2213.

Practical application of linguistic principles to the teaching of Spanish. Attention given to problems involved with the contrast between the structures of Spanish and English.
3313 INTRODUCTION TO HISPANIC LITERARY STUDIES (3-0) 3 hours credit. Prerequisite: SPN 2023 or SPN 2213.
The concept and function of literature. Special emphasis given to periods, genres and metric forms which characterize literature in Spanish, as well as to techniques of analysis.
3323 INTRODUCTORY READINGS IN HISPANIC LITERATURES (3-0) 3 hours credit. Prerequisite: SPN 2023 or SPN 2213.
An introduction to the Hispanic Literary tradition through the reading and discussion of literary masterpieces through periods, genres and styles.
3333 HISPANIC LITERATURE IN ENGLISH TRANSLATION (3-0) 3 hours credit.
May not be applied to a major in Spanish. Major works in Spanish Literature, themes, genres, movements. May be repeated for credit when topics vary.
3613 SPANISH CULTURE AND CIVILIZATION
(3-0) 3 hours credit. Prerequisite: SPN 2023, SPN 2123 or SPN 2213.

Emergence of the Spanish peoples from pre-Roman times to the present. The reflection in literature of cultural traditions, myths, values, and life-view.
3623 SPANISH-AMERICAN CULTURE AND CIVILIZATION (3-0) 3 hours credit. Prerequisite: SPN 2023 or SPN 2213.
The cultural life of the respective geographic regions and social strata of Spanish America from the Conquest to the present as reflected in and interpreted by its literature and arts.
3653 CONTEMPORARY SPAIN
(3-0) 3 hours credit. Prerequisite: SPN 2023 or SPN 2213.
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 2023 or SPN 2213.
Problems and conflicts determining the cultural development of contemporary Spanish America. Ethnic, social, political, economic and cultural characteristics. Intellectual currents and the role of the intellectual leaders in forming the cultural expression of Spanish America.
4013 INTRODUCTION TO THE AZTEC LANGUAGE
(3-0) 3 hours credit.
Grammar, vocabulary, and word formation of Aztec. Reading of simple texts. Attention both to modern and classical language, as well as to the impact of Aztec on the Spanish vocabulary of Mexico.

## 4113 SPANISH DIALECTS

(3-0) 3 hours credit. Prerequisite: SPN 3113.
Survey of the development and the salient characteristics of the dialects of Spain and Spanish America with emphasis on the Spanish of Mexico.

## 4123 THE SPANISH OF THE MEXICAN AMERICAN

(3-0) 3 hours credit. Prerequisite: SPN 3113.
A description of the Spanish language as used by Mexican Americans. Particular attention placed on its historical ties with other Hispanic dialects and its own varieties within the United States. Special emphasis on the issues of language maintenance and its use as a standard language.
4133 ADVANCED SPANISH GRAMMAR
(3-0) 3 hours credit. Prerequisite: SPN 3023.
A study of selected syntactic characteristics of the language with special attention to grammatical categories, subordination and verb systems including verbal aspects.
4313 MEDIEVAL HISPANIC LITERATURE
(3-0) 3 hours credit. Prerequisite: SPN 3313.
Literary languages, genres and themes in Medieval Spain from the Romanesque to the Gothic. Particular attention to Poema del Cid, Libro de Buen Amor and La Celestina.

4323 CERVANTES' DON QUIJOTE
(3-0) 3 hours credit. Prerequisite: SPN 3313.
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.

4333 SPANISH RENAISSANCE AND BAROQUE LITERATURE (3-0) 3 hours credit. Prerequisite: SPN 3313.
Medieval tradition and Italian innovations and their influence on Spanish poetry, drama and narrative. Special attention to the poetry of Garcilaso de la Vega and Góngora, to the drama of Lope de Vega, Tirso de Molina, and Calderón, and to the Lazarillo de Tormes and the narrative.
4343 SPANISH LITERATURE OF THE NINETEENTH CENTURY (3-0) 3 hours credit. Prerequisite: SPN 3313.
Major movements and authors. Themes, genres, relationships to other European literatures. Includes "costumbrismo," Romanticism, Realism and Naturalism.
4353 THE GENERATION OF 1898 TO THE 1936 CIVIL WAR
(3-0) 3 hours credit. Prerequisite: SPN 3313.
Generation of 1898: the concept, the authors, the themes, the works. Unamuno, Azorín, Machado, Benavente, Baroja, and Valle-Inclán. Influence on Spanish literature to the beginning of the Civil War: Ortega and García Lorca.

[^48]Spanish Civil War and its effect on literature. The emergence of the writer-in-exile. Stagnation and innovation. The great literary themes of post-war Spain in poetry, drama and narrative.
4423 SPANISH-AMERICAN RENAISSANCE AND BAROQUE (3-0) 3 hours credit. Prerequisite: SPN 3313.
Repetition and innovation in the literature originating in the New World. Its themes, forms, style and functions. Particular emphasis on the "cronistas," on Ercilla's La Araucana and on Sor Jauna Inés de la Cruz.
4433 SPANISH-AMERICAN LITERATURE OF THE 19TH CENTURY
(3-0) 3 hours credit. Prerequisite: SPN 3313.
Its roots in eighteenth century ideology and life. European influences and Spanish-American responses in poetry, including "poesía gauchesca," drama, novel, and essay.

## 4443 SPANISH-AMERICAN MODERNISM

(3-0) 3 hours credit. Prerequisite: SPN 3313.
Modernism: concept, influences, genres, themes, authors, and works.
4453 SPANISH-AMERICAN PROSE AND POETRY AFTER MODERNISM TO 1940
(3-0) 3 hours credit. Prerequisite: SPN 3313.
Literary movements, authors, and works. Focus on "vanguardista" poetry and early twentieth century novel, short story, and essay.
4463 CONTEMPORARY SPANISH-AMERICAN POETRY AND DRAMA
(3-0) 3 hours credit. Prerequisite: SPN 3313.
Literary themes and structures, poets (Neruda, Borges, Paz) and dramatists (Usigli, Gorotiza, Heiremans).

4473 CONTEMPORARY SPANISH-AMERICAN PROSE
(3-0) 3 hours credit. Prerequisite: SPN 3313.
The novel, short story, and essay: Asturias, Carpentier, Cortazar, Fuentes, García-Márquez, Paz, Reyes, Rulfo, Sábato, VargasLlosa, and Yáñez.

4483 NATIONAL LITERATURES OF SPANISH AMERICA
(3-0) 3 hours credit. Prerequisite: SPN 3313.
Representative works from the national literatures of Spanish America. May be repeated for credit when topics vary.
4493 MEXICAN-AMERICAN LITERATURE
(3-0) 3 hours credit.
Readings and discussion of works by Mexican-American writers.
The expression through poetry, the novel, the short story and the theater. Selections from popular literature including the oral tradition. Mexican-American literature as part of Mexican and U.S. American literary traditions.

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 SPANISH
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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 COMPARATIVE STUDIES IN THE HUMANITIES (CHS)

3013 AMERICA SEEN THROUGH EUROPEAN EYES
(3-0) 3 hours credit. Prerequisite: Upper-division standing.
Credit may not be applied to a major in foreign languages when taken in English. A study of European impressions of North America (Canada, United States, particularly Louisiana, Texas and California) and South America from the early travels and exploration to the present. An examination of the central themes concerns of selected European authors.
3333 LITERARY MASTERPIECES IN ENGLISH TRANSLATION (3-0) 3 hours credit.
A study of World literary masterpieces in English translation. Individual topics focus on a national literature or a literary tradition which includes Western, Far Eastern, Indic, African, Semitic and Pre-Columbian literatures. May be repeated for credit when topics vary.
3343 MASTERPIECES OF ORAL TRADITION
(3-0) 3 hours credit.
An introduction to the literary masterpieces of the oral traditions in Africa, North and South American Indian literatures. Topics may focus on any one of the geographic areas.
3353 OPERA AS DRAMA
(3-0) 3 hours credit. Prerequisite: Upper-division standing.
An examination of the relationships between theater and music as it is developed in different countries. Topics include the Hispanic zarzuelas, Viennese operettas, the French opera comique tradition and musical comedies from throughout the world. May be repeated for credit when topics vary.

## 4013 PRINCIPLES OF LITERARY THEORY

(3-0) 3 hours credit. Prerequisite: Completion of required foreign language courses for a major in French, German, or Spanish.
Concept and functions of literature in the Western World through representative masterpieces of epics, poetry, drama and fiction. The necessary critical lanaguage, principles and general theory. Plot, design, pattern, character and type, image and archetype. Traditional literary genres and their structure. Problems in literary history: periodization, generations, movements and styles.
4513 ICONOGRAPHY IN FOREIGN LITERATURES AND ARTS
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
A study of the relationships between French, German, Spanish and Russian literatures and arts through the reading of selected texts and the study of analogous works in the plastic arts in the respective nations. Themes, motifs, techniques. Individual topics focus on the relationships between literature and art in a particular tradition, in several countries during a given period or, in relationship to a common theme. May be repeated for credit when topics vary.

## 4523 THE FOREIGN FILM

(3-0) 3 hours credit. Prerequisite: FRN, GER, RUS, or SPN 3313. A critical study of the history of foreign filmic masterpeices. Emphasis on the scenario in conjunction with the narrative function of the sequential frames. The problems and solutions of adapting one medium to another: from novel to film, from dramatic play to film. Films are shown for critical interpretation. Individual topics focus on films identifiable by a national focus or a series of films with a particular thematic orientaton. May be repeated for credit when topics vary.

## 4923 IMAGES OF THE MEXICAN AMERICAN

(3-0) 3 hours credit. Prerequisite: Upper-division standing.
May not be applied to a major in Spanish.
An examination of the images of the Mexican American as projected in literature, art and folklore through various historical periods. The projection of images through film, advertising and other media.

## COURSE DESCRIPTIONS LINGUISTICS (LNG)

3813 INTRODUCTION TO LINGUISTICS
(3-0) 3 hours credit.
Basic principles of analysis and description of the structure of language. Attention given to the various levels: sound, syntax, and semantics; to both the historical and structural axes; and to language variation (geographical and social).

## 3823 <br> INTRODUCTION TO PHONETICS

(3-1) 3 hours credit.
Speech production from an articulatory point of view, including a survey of speech sounds found in various languages. The elements of the acoustic structure of speech sounds.

## 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 interrelations between language and culture. The Study of language in its social context. Language variation and linguistic change.

## 3843 PSYCHOLOGY OF LANGUAGE

(3-0) 3 hours credit. Prerequisite: LNG 3813 or consent of instructor.
The psychological aspect of language to include language acquisition, language disorders, and the relationship between language and the mind.

## 3853 THE LANGUAGES OF THE MEXICAN AMERICAN

(3-0) 3 hours credit. Prerequisite: LNG 3813.
A linguistic description of English and Spanish as spoken by bilingual Mexican Americans. Special emphasis on codeswitching, linguistic domains, registers, and on the importance of language dominance in educational planning.

## 4143 LANGUAGE DEVELOPMENT

(3-0) 3 hours credit.
Developmental changes in use of language, processes of learning a language, particularly syntax. Topics include psychological evaluation of Chomsky's theory, the role of imitation and parental shaping of language and learning a second language.

## 4213 THE CONTRIBUTION OF LINGUISTICS TO LITERARY STUDIES

(3-0) 3 hours credit. Prerequisites: Completion of required foreign language courses for a major in French, German, or Spanish.
Background and application of linguistics to literature. Definitions, terminology, etc., of linguistics are compared and contrasted. The functions of phonology, semantics, stylistics and semiology. Readings from: Saussure, Hjelmslev, Chomsky, Jacobson, Greimas, Beneviste, Eco and others.

## DIVISION OF SOCIAL SCIENCES

The object of the social sciences is to investigate human social behavior, past and present, in all its forms. Anthropology, geography, history, political science, psychology and sociology are parts of that endeavor. The Division of Social Sciences offers bachelor of arts degrees in each of these fields. Students are encouraged to enrich their knowledge of one discipline by including course work from the others.

The Major. By majoring in any of the above areas, a student has elected to invest a significant part of his or her university education in the study of one of the social sciences, its scope, its methods, and its findings. At graduation, the student should be knowledgeable of the basics of his discipline, its relation to the other social sciences, its present state of development and its principal research frontiers.
A major in the social sciences can be an end in itself or a prelude to a professional career. Many students view the major as an opportunity to explore one of the social sciences in depth within an organized program of instruction and advising. Others intend the major as the beginning of career training, for instance in law, medicine, the allied health professions, education, social services, and the professional social sciences. The program is designed to be productive for students with either intention.
The basic form of all social science majors is a set of courses ranging from elementary to advanced. Some are specified by the program while others may be selected from the general offerings of the discipline. The latter provision enables the student to place emphasis on sectors of the field holding particular interest. In the final term before graduation, the student enrolls in the Social Science Conference Course, a seminar restricted to majors that seeks to cement the student's understanding of the discipline and to explore recent findings in selected areas of research in the field.
At least 30 credit hours of course work are required to fulfill a social science 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.

Interdisciplinary Studies. The Division also offers, as a voluntary option, the opportunity to study one of several problem areas using the resources of various social sciences. The student electing this option takes 21 hours of course work within the discipline of his major, and 18 hours of course work in the Interdisciplinary Problem Area for a total of 39 hours. In the final term before graduation, the student enrolls in the Social Science Conference Course.
In choosing this option, the student establishes a foundation in one of the social science disciplines, and also takes advanced studies in one of the Interdisciplinary Problem Areas. The student graduates with a major in a principal discipline. A listing of the available Interdisciplinary Problem Areas and the courses which comprise them appears below.

Honors. The Division of Social Sciences designates certain of its outstanding students as honors students and provides the opportunity for advanced study under close faculty supervision. A few weeks before the beginning of the final semester, the student may elect to take a comprehensive examination administered by the Division. Distinguished performance on the examination will lead to the designation as an honors student for the final semester. The honors student enrolls in Honors Seminar in lieu of the Social Science Conference Course. In addition, honors students enroll in Honors Thesis, a faculty tutorial, the end product of which is a thesis based on research.

## Interdisciplinary Problem Areas

Social Science majors may select one of the following optional Interdisciplinary Problem Areas in conjuntion with the major. Each problem area is composed of a set of specially designed upper-division courses examining a given problem or area of scholarship using the tools of several disciplines. Students enrolled in a problem area finish the major with SSC 4963, Social Science Conference Course, designed to integrate the contributions of the social sciences involved. Rules and procedures governing the problem areas are set out above and in the information given for each social science major.

[^49]with the development of civilization. Urban centers are founded and maintained within a variety of cultural, historical, and political environments. The recognition that the United States has recently become an urban nation, with the attendant problems of that condition, has led to a desire to understand the various aspects of urbanization as a general social phenomenon. This program is designed to integrate the findings of research in the social sciences by examining aspects of urban society common to all disciplines. Each course is considered a complimentary part of a whole, the framework of which is presented in SSC 3213, Theories of the City, the prerequisite for all other courses in this Interdisciplinary Problem Area with the exception of ENV 3033, Elements of Urban Systems Management. In addition to SSC 4963, Social Science Conference Course, students choose five of the six courses listed below and are encouraged to elect appropriate additional courses from related disciplines.

> SSC 3213 Theories of The City
> HIS 4173 History and Evolution of The City
> POL 3413 The Politics of Urbanizing Societies
> ECO 3403 Economic Aspects of Urbanization
> ANT 4163 The City as Artifact
> ENV 3033 Elements of Urban Systems Management

## 2. The Developing Third World

This area covers the nature, history, and current problems of the non-industrialized world. The "Third World" so defined is frequently considered in terms of its potential role as a third force in international relations, a role that in turn is thought to be based upon common problems, historical experiences, and outlooks among the world's "underdeveloped" nations. The particular concern of this problem area is not the international political aspect of the Third World, but rather the domestic factors that may be common among the Third World nations, theory and reality behind attempts at economic development, societal problems confronting nations in the process of modernization, and the internal politics of developing countries. Students select SSC 4963 Social

Science Conference Course, and five of the six courses listed below.

ANT 3183 Peasant Societies and Modernization
POL 3423 Social Conflict in the Third World: Classes, Minorities and Traditional Structures
POL 3433 Leadership and Modernization in the Third World
GRG 3353 Natural Resources and the Developing Nations
HIS 4193 Colonialsim: A Comparative Approach
ECO 4303 Economic Problems of Emerging Nations
3. Ethnic Studies of the American Southwest

This area focuses upon an examination of Southwestern ethnicity from several vantage points. The dynamics of ethnic interaction are the major focus, with attention to the structure of social pluralism, its cultural backgrounds, historical evolution, political movements, literary expression and cultural geography. The basic content of the program derives from sociology, history, anthropology, political science, and Spanish. Students select SSC 4963, Social Science Conference Course, and five of the six courses listed below.

HIS 3133 History of Minorities in the Southwest
SOC 3133 Sociology of Pluralism in the Southwest
ANT 3283 Native Cultures of the American Southwest
BBL 3023 Mexican-American Culture
POL 3293 Ethnic Politics in the Southwest
SPN 4493 Mexican-American Literature

## BACHELOR OF ARTS DEGREE IN ANTHROPOLOGY

Anthropology is the study of man's cultural behavior - that body of customs and ideas which continues from generation to generation, serves the same function that instinctual patterns do in lower animals, and varies markedly from one human population to another. Among the subfields of anthropology are archaeology, the reconstruction and explanation of man's cultural past; cultural anthropology, the study of cultural and linguistic variation among contemporary peoples;
and physical anthropology, the study of fossil man and the physiological bases of cultural behavior.
The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, is $120 .{ }^{27}$

All candidates for the degree must complete:
A. 30 semester hours in the major, 21 of which must be at the upper-division level.

1. 9 semester hours of required courses are:

ANT 1013 Man in Adaptation
ANT 2013 Anthropological Inquiry: Archaeology and Physical Anthropology or
ANT 2023 Anthropological Inquiry: Cultural Anthropology and Linguistics
SSC 4963 Social Science Conference Course
2. 9 semester hours are required in cultural anthropology, physical anthropology, and archaeology, with at least 3 hours in each, chosen in consultation with the student's Advisor.
3. 12 additional semester hours of anthropology electives are required, to be chosen in consultation with the student's Advisor. Nine of these hours may be applied to the major from:

HIS 3113 The United States and the American Indian
LNG 3833 Sociology of Language
MAT 3013 Statistical Methods in The Life and Social Sciences II
PSY 3053 Cross-Cultural Psychology
PSY 3633 Aggression
SOC 3013 Social Stratification
SOC 3133 Sociology of Pluralism in the Southwest

[^50]B. 40 semester hours of free electives.

## Interdisciplinary Problem Area

Candidates for the degree who elect an Interdisciplinary Problem Area must complete 39 semester hours for the combined major and the Interdisciplinary Problem Area.
A. 21 hours of anthropology in addition to those in the problem area are required including:

ANT 1013 Man in Adaptation
ANT 2013 Anthropological Inquiry: Archaeology and Physical Anthropology or
ANT 2023 Anthropological Inquiry: Cultural Anthropology and Linguistics

3 semester hours each of cultural anthropology, physical anthropology, and archaeology.
B. 18 semester hours in the problem area.
C. 31 semester hours of free electives.

## COURSE DESCRIPTIONS

## ANTHROPOLOGY

(ANT)
1013 MAN IN ADAPTATION
(3-0) 3 hours credit.
The study of man's culture, past and present; its origins, development, and contemporary change; and the explorations of man's physical and cultural differences, using the paradigm of adaptation.
2013 ANTHROPOLOGICAL INQUIRY: ARCHAEOLOGY AND PHYSICAL ANTHROPOLOGY
(3-0) 3 hours credit. Prerequisite: ANT 1013.
A problem-solving approach to classic and contemporary questions in archaeology and physical anthropology. Stress is on the nature of anthropological inquiry as reflected in these two fields.
2023 ANTHROPOLOGICAL INQUIRY: CULTURAL ANTHROPOLOGY AND LINGUISTICS
(3-0) 3 hours credit. Prerequisite: ANT 1013.

A problem-solving approach to classic and contemporary questions in cultural anthropology and linguistics. Stress is on the nature of anthropological inquiry as reflected in these two fields.
2113 WORLD ETHNOGRAPHY
(3-0) 3 hours credit. Prerequisite: ANT 1013.
A survey of peoples and cultures around the world, selected to illustrate the range of human social variation.
3103 SOCIAL ORGANIZATION
(3-0) 3 hours credit. Prerequisite: ANT 1013.
Comparative analysis of family and social organization, primarily among non-literate peoples.
3133 NATIVE PEOPLES OF NORTH AMERICA
(3-0) 3 hours credit. Prerequisite: ANT 1013 recommended.
Native cultures of the North American continent, the effects of European expansion, and contemporary problems of American Indians.
3143 PEOPLES AND SOCIETIES OF LATIN AMERICA (3-0) 3 hours credit. Prerequisite: ANT 1013 recommended. Contemporary peoples of indigenous Mediterranean and African origin inhabiting the Caribbean, Middle and South America.
3163 ANTHROPOLOGICAL APPROACHES TO MEDICINE AND NURSING
(3-0) 3 hours credit. Prerequisite: ANT 1013 recommended.
The implications of selected core concepts for medicine, nursing, and health care research. For students intending to enter the health professions.
3173 ETHNOMEDICINE, THEORY AND APPLICATIONS
(3-0) 3 hours credit. Prerequisite: ANT 1013.
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.
3183 PEASANT SOCIETIES AND MODERNIZATION
(3-0) 3 hours credit. Prerequisite: ANT 1013 or consent of instructor.
Anthropological theory, models, and findings relative to peasants distributed world-wide and viewed as a social type. Particular attention is given to the structure of stratified plural societies and to the role of power in modernization.

3223 CULTURAL ECOLOGY
(3-0) 3 hours credit. Prerequisite: ANT 1013 recommended.
Man's adaptation to environment and his interaction with it, comparing simple and complex societies in various environmental contexts.

## 3263 ARCHAEOLOGY OF NORTH AMERICA

(3-0) 3 hours credit. Prerequisite: ANT 1013.
Survey of prehistoric cultures in North America from earliest times to historic contact; chronology; settlement and subsistence patterns; technology.

## 3273 ARCHAEOLOGY OF MESOAMERICA

(3-0) 3 hours credit. Prerequisite: ANT 1013.
Examination of the development of the ancient civilizations of Mexico and Central America: Olmec, Teotihuacan, Maya, Toltec, Aztec.
3283 NATIVE CULTURES OF THE AMERICAN SOUTHWEST
(3-0) 3 hours credit. Prerequiste: ANT 1013.
The native American Indian cultures of the Southwestern United States are studied from various perspectives: prehistoric development; ethnography; current status.

## 3404 FIELD COURSE IN ARCHAEOLOGY

(5-35) 4 hours credit. Prerequisite: Upper-division standing, consent of instructor, and at least one previous anthropology or archaeology course.
Intensive training in archaeological field methods: excavation, site survey, mapping, sampling, interpretation. This course is offered in the first 6 -week summer term only. Additional fees are required.
3503 EARLY MAN
(3-0) 3 hours credit. Prerequisite: ANT 1013 recommended.
The fossil record of sapien emergence and the development of races.
3513 HUMAN POPULATIONS
(3-0) 3 hours credit. Prerequisite: ANT 2013.
The physical anthropology of human populations including human genetics, functional anatomy, evolution, demography, phenotypic diversity applied to both prehistoric and contemporary populations.
3613 CROSS-CULTURAL STUDIES OF SOCIALIZATION (3-0) 3 hours credit. Prerequisite: ANT 1013.
Examination and evaluation of anthropological and psychological comparative studies of child-rearing and enculturation in selected cultures.
3623 PRIMATE BEHAVIOR
(3-2) 3 hours credit. Prerequisite: ANT 1013 or consent of instructor.
Analysis of learning, development, 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.
Application of the physical and chemical sciences to archaeol-
ogical problems; examination of selected topics: trade, technology, dating, settlement patterns, seasonality of occupations.

## 3653 PRIMITIVE TECHNOLOGY

(3-0) 3 hours credit. Prerequisite: ANT 1013.
Lectures and demonstrations illustrating the technology of ancient and contemporary pre-industrial peoples: tool manufacture and use; making artifacts of wood, stone, and metals; social and economic aspects of primitive technologies; craft specialization; subsistence and settlement technology.
3663 HUNTERS AND GATHERERS
(3-0) 3 hours credit. Prerequisite: ANT 1013.
A study of the lifeways of hunting and gathering peoples around the world. Emphasis is placed on prehistoric hunters and gatherers, leading to an examination of archaeological data, and problems in interpretation. Contemporary hunting and gathering populations are also studied.

## 3673 ORIGINS OF CIVILIZATION

(3-0) 3 hours credit. Prerequisite: ANT 1013.
Development of agriculture and village life; beginnings of civilization in the Near East and Mediterranean; comparisons with Mesoamerica, India, and China; rise of civilization in the Nile Valley.

## 4113 ARCHAEOLOGY OF TEXAS

(3-0) 3 hours credit. Prerequisite: ANT 3263.
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.
4163 THE CITY AS ARTIFACT
(3-0) 3 hours credit. Prerequisite: SSC 3213 or consent of instructor.
The physical and material aspects of the city are examined as responses to, and influences upon, individual and group behavior in urban centers. Attention given to deliberate attempts to shape the urban environment to effect change in urban society.

## 4403 LABORATORY ANALYSIS IN ANTHROPOLOGY

(2-4) 3 hours credit. Prerequistes: ANT 3404 or the equivalent and consent of instructor.
Supervised analysis of field data; methods of analysis; research techniques; preparation of reports. May be repeated for an additional three hours of credit with consent of instructor and Dean.

## 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 ANTHROPOLOGY
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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.
4983 HONORS SEMINAR
(3-0) 3 hours credit. Prerequisite: Enrollment limited to candidates for honors in anthropology during their last two semesters. A supervised, intensive examination of topical areas of anthropology.
4993 HONORS THESIS
3 hours credit. Prerequisite: Enrollment limited to candidates for honors in anthropology during their last two semesters. To be taken concurrently with ANT 4983. Supervised research and preparation of an honors thesis.

## BACHELOR OF ARTS DEGREE IN GEOGRAPHY ${ }^{28}$

At the core of Geography are the systems that link man to environment. Some systems are physical; for example, the carrying capacity of regions for the support of human populations, the environmental consequences of pollution, and man's proclivity to distribute his activities according to features of the natural landscape. Some systems are cultural; for example, the spatial layout of cities, cultural attitudes toward time, space and environment, and the role of environment in the founding of civilizations. The primary variable for geography is space; techniques for measuring its range from cartography to attitude surveys to stochastic models and locational theory. The major examines the field of geography and its implications for the use of physical and social space.

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, is $120 .{ }^{29}$

All candidates for the degree must complete:
A. 30 semester hours in the major, 21 of which must be at the upper-division level.

1. 12 semester hours of required courses are:

GRG 1013 Man and The Physical World One additional course from GRG 2503-2593 ENV 2013 Introduction to Environmental Systems SSC 4963 Social Science Conference Course
2. 18 semester hours of geography electives are required, to be chosen in consultation with the student's Ad-

[^51]visor. Nine of these hours may be applied to the major from:

ANT 3223 Cultural Ecology
ANT 4163 The City as Artifact
ECO 3403 Economic Aspects of Urbanization
MAT 3013 Statistical Methods in the Life and Social Sciences II
SSC 3003 Social Research Methods
SSC 3103 Major Theories of the Social Sciences
B. 40 semester hours of free electives.

## Interdisciplinary Problem Area

Candidates for the degree who elect an Interdisciplinary Problem Area must complete 39 semester hours for the combined major and the Interdisciplinary Problem Area.
A. 21 semester hours of geography in addition to those in the problem area are required including:

6 semester hours from courses numbered GRG 2503 2593
9 semester hours at the upper-division level
B. 18 semester hours in the problem area.
C. 31 semester hours of free electives.

## COURSE DESCRIPTIONS GEOGRAPHY <br> (GRG)

1013 MAN AND THE PHYSICAL WORLD
(3-0) 3 hours credit.
Introduction to the study of man's environment, the distribution of physical and biological variation, and man's response to that distribution.
2513 THE GEOGRAPHY OF WORLD RESOURCES
(3-0) 3 hours credit. Prerequisite: GRG 1013.
The worldwide distribution of critical physical, biological and human resources, with attention to the economic and political consequences of that distribution.
2523 GEOGRAPHY OF THE AMERICAS
(3-0) 3 hours credit. Prerequisite: GRG 1013 recommended.

Survey of the physical, cultural and economic geography of the western hemisphere.
2533 GEOGRAPHY OF EUROPE
(3-0) 3 hours credit. Prerequisite: GRG 1013 recommended.
Survey of the physical, cultural and economic geography of Eastern and Western Europe and the Mediterranean.
2543 GEOGRAPHY OF AFRICA
(3-0) 3 hours credit. Prerequisite: GRG 1013 recommended. Survey of the physical, cultural, and economic geography of Africa and Madagascar.
2553 THE CLIMATIC ENVIRONMENT
(3-0) 3 hours credit. Prerequisite: GRG 1013 recommended.
Principles of climatology and a survey of selected world climatic regions.
2563 THE OCEANIC ENVIRONMENT
(3-0) 3 hours credit. Prerequisite: GRG 1013 recommended.
Principles of oceanography and a survey of the world's major oceanic regions.
3023 ESSENTIALS OF CARTOGRAPHY
(3-0) 3 hours credit. Prerequisite: GRG 1013.
Introduction to the techniques of converting spatial configuration to planar surfaces.
3353 NATURAL RESOURCES AND THE DEVELOPING NATIONS (3-0) 3 hours credit. Prerequisite: GRG 1013 recommended.
The role of natural resources in developing or impeding the modernization of the developing nations.
4103 ETHNOGEOGRAPHY
(3-0) 3 hours credit. Prerequisite: ANT 1013 or GRG 1013.
The perception of physical space and environment compared cross-culturally in Western and non-Western societies.

## 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.
SPECIAL STUDIES IN GEOGRAPHY
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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.
4983 HONORS SEMINAR
(3-0) 3 hours credit. Prerequisite: Enrollment limited to candi-
dates for honors in geography during their last two semesters. A supervised, intensive examination of topical areas of geography.
4993 HONORS THESIS
3 hours credit. Prerequisite: Enrollment limited to candidates for honors in geography during their last two semesters.
To be taken concurrently with GRG 4983. Supervised research and preparation of an honors thesis.

## BACHELOR OF ARTS DEGREE IN HISTORY

History is the study of the past of human society, as that past is revealed mainly through the analysis of written and oral records. The foundation of historical study is a set of methods for evaluating and interpreting historical sources and a set of attitudes toward the past, whereby non-contemporary societies are regarded as objects of investigation in themselves, as products or prior history, and as the bases from which subsequent change developed. The vastness of the discipline precludes a single standard internal division of the subject; the branches of history may be categorized by geographical region (e.g., American, European), by era (e.g., medieval, modern), and by the type of human activity upon which the historian focuses (e.g., political, intellectual).

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements is $120 .{ }^{30}$

All candidates for the degree must complete:
A. 30 semester hours in the major, 21 of which must be at the upper-division level.

1. 27 semester hours of required courses are:
a. 6 semester hours from courses numbered HIS 25032593 covering different continental areas.
b. 18 semester hours of history electives at the upperdivision level, 6 semester hours of which may be applied to the major from:
ANT 3673 Origins of Civilization
ECO 3183 Economic Development of the United States
POL 3323 Constitutional Law
SSC 3003 Social Research Methods
SSC 3103 Major Theories of the Social Sciences

[^52]c. SSC 4963 Social Science Conference Course
2. 3 semester hours of history electives are required to be chosen in consultation with the student's Advisor.
B. 40 semester hours of free electives.

## Interdisciplinary Problem Area

Candidates for the degree who elect an Interdisciplinary Problem Area must complete 39 semester hours for the combined major and the Interdisciplinary Problem Area.
A. 21 semester hours of history in addition to those in the problem area are required including:

6 semester hours from courses numbered HIS 2503-2593 9 semester hours at the upper-division level
B. 18 semester hours in the problem area.
C. 31 semester hours of free electives.

## COURSE DESCRIPTIONS

## HISTORY

(HIS)
1013 UNITED STATES POLITICAL HISTORY, 1775-1865: THE DEVELOPMENT OF AMERICAN POLITICAL INSTITUTIONS AND THE ERA OF CONSTITUTIONAL CRISIS (3-0) 3 hours credit.
American political history from the Revolution through the Civil War, with emphasis on the emergence of new political structures and ideas and on the growth of fundamental constitutional conflicts within the American polity. Applies to the legislative requirements for United States history.
1023 UNITED STATES POLITICAL HISTORY, 1865-1918: THE READJUSTMENT OF THE AMERICAN POLITICAL SYSTEM
(3-0) 3 hours credit.
Reconstruction and the adjustment of American political institutions to the problems of late nineteenth-century America; the dominance of the legislative branch and the age of reform. Applies to the legislative requirement for United States history.
1033 UNITED STATES POLITICAL HISTORY, 1918 TO THE PRESENT: POLITICS IN AN ERA OF CRISIS AND WORLD POWER
(3-0) 3 hours credit.

Changes in the function and structure of the United States political system as it confronted new problems of social change and world power. Applies to the legislative requirement for United States history.

## 2013 COLONIAL AMERICA AND THE FORMATION OF AMERICAN SOCIETY

(3-0) 3 hours credit.
An examination of the elements of colonial society that most strongly influenced the development of the United States. Special emphasis on a comparison between the colonies of eastern North America and those of Spanish America. Applies to the legislative requirement for United States history.

## 2033 ECONOMIC DEVELOPMENT AND SOCIAL CHANGE IN

 THE UNITED STATES SINCE 1850 (3-0) 3 hours credit.American industrialization and the development of modern American society. Special attention is paid to the economic background of industrialization, attendant social problems, immigration, race relations, and the emergence of a massconsumption economy. Applies to the legislative requirement for United States History.
2043 THE INTERNATIONAL RELATIONS OF THE UNITED STATES, 1783-1950
(3-0) 3 hours credit.
The diplomatic history of the United States, with particular attention to the emergence of the United States as a world power, the consequences of world power for foreign policy, and the internal roots of foreign policy. Applies to the legislative requirement for United States history.
2053 HISTORY OF TEXAS SINCE 1836
(3-0) 3 hours credit.
A consideration of the regional history of the Southwest, with particular attention to the history of Texas during the period of independence and afterward, the annexation of the Southwest by the United States, and the political and economic development of the region in the late nineteenth and twentieth centuries. Applies to the legislative requirement for Texas history.
2503 EUROPEAN CIVILIZATION IN THE MIDDLE AGES
(3-0) 3 hours credit.
A survey of Western European medieval history and an examination of forces of change in the late Middle Ages which resulted in the emergence of a modern European society.

## 2513 EARLY MODERN EUROPE, 1400-1789

(3-0) 3 hours credit.
The development of modern political systems, societies, and intellectual life in Europe prior to the French Revolution.
2523 EUROPE SINCE 1789
(3-0) 3 hours credit.

Significant developments and trends in European politics, society, culture, and economies since the beginning of the French Revolution.

2533 LATIN AMERICA: THE COLONIAL ERA
(3-0) 3 hours credit.
Latin American history from 1492 to independence with emphasis on the formation of Latin American civilization.
2543 LATIN AMERICA: THE REPUBLICAN ERA
(3-0) 3 hours credit.
Latin American history since independence with emphasis on major nations, trends, and developments.
2553 THE FAR EAST: HISTORY AND CIVILIZATION (3-0) 3 hours credit.
A survey of the history and culture of the Far East to the present time, with an emphasis on China and Japan.
2563 THE MIDDLE EAST SINCE 622 A.D.
(3-0) 3 hours credit.
The history of the Middle East after the rise of Islam.
2573 SURVEY OF AFRICAN HISTORY
(3-0) 3 hours credit.
African history, emphasizing the rise of major African states and civilizations, the colonial period, and independence.
3013 THE AMERICAN EXPERIENCE
(3-0) 3 hours credit.
An intensive survey of American intellectual history from the seventeenth century to the present. Applies to the legislative requirement for United States history.
3023 AMERICAN INDEPENDENCE AND NATIONAL UNITY, 1760-1820
(3-0) 3 hours credit. Prerequisite: HIS 1013 or HIS 2013, or consent of instructor.
Origins of the American Revolution, the Revolutionary War, the struggle for unity, and the early years of nationhood. Applies to the legislative requirement for United States history.

## 3043 POPULISM AND PROGRESSIVISM

(3-0) 3 hours credit.Prerequisite: HIS 1023 or HIS 2033, or consent of instructor.
Political reform movements in the late nineteenth and early twentieth centuries, with particular attention to the social conditions within which they emerged. Applies to the legislative requirement for United States history.
3053 JACKSONIAN DEMOCRACY AND NATIONAL EXPANSION, 1820-1860
(3-0) 3 hours credit. Prerequisite: HIS 1013, or consent of instructor.
Jacksonian democracy, the rise of the two-party system, major reform movements, and the origins of the Civil War. Applies to
the legislative requirement for United States history.
3063 THE BORDERLANDS, 1521-1821
(3-0) 3 hours credit.
Spanish exploration and colonization of the northern frontiers of New Spain. The introduction of Hispanic institutions and the development of a frontier society.
3073 THE BORDERLANDS SINCE 1821
(3-0) 3 hours credit. Prerequisite: HIS 3063 recommended.
The American Southwest since 1821, comparing the histories of Texas, New Mexico, Arizona, and California.

3093 UNITED STATES CONSTITUTIONAL AND LEGAL HISTORY
(3-0) 3 hours credit.
Constitutional and legal developments from the formation of the state and federal constitutions to Watergate. Particular attention is paid to the context of judicial decision-making and its impact on American society and life. Complements POL 3323, Constitutional Law. Applies to the legislative requirement for United States history.
3103 HISTORY OF LABOR IN THE UNITED STATES
(3-0) 3 hours credit. Prerequisite: HIS 2033 or consent of instructor.
An examination of factors antecedent to the rise of organized labor, the early unionizing efforts and their results, the legalization of collective bargaining, institutionalization of the union movement, and the rise of new labor interest groups.

## 3113 THE UNITED STATES AND THE AMERICAN INDIAN

 (3-0) 3 hours credit.A history of the relations between the government of the United States and the American Indians, from the American Revolution to the present time. Attention will be given to the social structures and histories of major Indian nations, the political, economic and social background of the Indian policies of the United States, the growth of conflict between the United States and the Indian peoples, the "Indian Wars" of the late nineteenth century, and Indian policy in the twentieth century.
3123 HISTORY OF TEXAS: THE COLONIAL AND MEXICAN PERIODS AND THE WAR OF INDEPENDENCE (3-0) 3 hours credit.
Texas history from the seventeenth century through the War of Independence in 1836, emphasizing the Spanish and Mexican backgrounds of Texas and the changes which preceded Texas' independence. Applies to the legislative requirement in Texas history.
3133 HISTORY OF MINORITIES IN THE SOUTHWEST
(3-0) 3 hours credit.
An interpretation of the historical heritage of minority groups in the Southwest, with attention to the development of ethnic and
interethnic social, political, and economic institutions in the region.
3143 WOMEN IN AMERICAN LIFE
(3-0) 3 hours credit.
The changing role of women from colonial times to the present, with particular attention to women's influence on the family, the labor force, economic decision-making, and political action.
3153 THE CITY IN THE MAKING OF AMERICA
(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.
3163 THE STRANGER IN AMERICA (3-0) 3 hours credit.
An examination of immigrants and their reception in American society from the 18th 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.
3203 BRITAIN SINCE 1660
(3-0) 3 hours credit.
A survey of modern British history, emphasizing political, social and intellectual factors in Britain's past.
3213 FRANCE SINCE 1610
(3-0) 3 hours credit. Prerequisite: HIS 2523 or consent of instructor.
An examination of major trends in French history since the death of Henry IV, with particular attention to social and cultural factors affecting the course of French political life and to the influence of France on the rest of the world.

3223 RUSSIA SINCE 1682
(3-0) 3 hours credit. Prerequisite: HIS 2523 or consent of instructor.
The development of Russia since the accession of Peter the Great, including the Russian Revolution and the establishment of the Soviet state.

## 3233 GERMANY SINCE 1648

(3-0) 3 hours credit. Prerequisite: HIS 2523 or consent of instructor.
The history of Germany since the Peace of Westphalia, emphasizing the growth of the Prussian state, the rise of German culture, Germany's unification and attainment of world power, and Germany's history since World War I.

3243 HISTORY OF SPAIN, c. 600 B.C. -1832
(3-0) 3 hours credit.
A survey of Spanish history from the Celtic invasions to the Spanish-American wars of independence.
3303 HISTORY OF MEXICO
(3-0) 3 hours credit. Prerequisite: HIS 2533 or consent of instructor.
The development of the Mexican nation and culture from the Aztecs to the present.
3323 MAKERS OF LATIN AMERICAN HISTORY
(3-0) 3 hours credit. Prerequisites: HIS 2533 and HIS 2543.
A study of Latin American history through the lives of major figures from colonial times to the present.
3503 THE EXPANSION OF EUROPE, 1415-1800
(3-0) 3 hours credit. Prerequisites: HIS 2513 and HIS 2523 recommended.
A survey of European exploration, cultural and economic expansion, colonization, and imperialism.
3513 THE RENAISSANCE AND REFORMATION
(3-0) 3 hours credit. Prerequisite: HIS 2513 or consent of instructor.
European intellectual life from the fourteenth to the seventeenth century, emphasizing the cultural aspects of the Renaissance and Reformation.
3523 EUROPEAN INTELLECTUAL HISTORY
(3-0) 3 hours credit. Prerequisite: ENG 1033.
An intensive survey of European intellectual history from the seventeenth century to the present.
3533 INTER-AMERICAN RELATIONS
(3-0) 3 hours credit. Prerequisite: HIS 2543 or consent of instructor.
The history of the diplomatic relations between nations of the Americas, and the struggle for political hegemony.
3573 REVOLUTIONS IN LATIN AMERICA: MEXICO, BOLIVIA, CUBA, BRAZIL, AND CHILE
(3-0) 3 hours credit. Prerequisite: HIS 2543 or consent of instructor.
An examination of major revolutions in Latin America, and an analysis of their results.
4173 HISTORY AND EVOLUTION OF THE CITY
(3-0) 3 hours credit. Prerequisite: SSC 3213 or consent of instructor.
An examination of the origins of the city, the development and variation of the urban settlement in response to the agricultural, commercial and industrial revolutions, and the city viewed cross-culturally to illustrate its common and diverse functions.

4193 COLONIALISM: A COMPARATIVE APPROACH (3-0) 3 hours credit.
The colonial experiences of several different areas of the world, analyzed and compared against the historical background of the Third World.

## 4203 HISTORY OF SCIENCE

(3-0) 3 hours credit.
The emergence of science among alternative explanatory systems from its roots in classical times to the present. Science as an intellectual activity, a social product and a force for change. Parallels and divergences in the development of social and physical sciences.
4303 HISTORY OF URBAN CRIME IN AMERICA (3-0) 3 hours credit.
This course explores the changing nature of the criminal underworld as it has responded to broad socioeconomic processes in American urban society since 1800. Topics include a consideration of street crime, juvenile delinquency, and professional thieves; an examination of changing perceptions of narcotics use; and an extensive analysis of the origins and development of organized crime.

## 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 HISTORY

(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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.
4983 HONORS SEMINAR
(3-0) 3 hours credit. Prerequisite: Enrollment limited to candidates for honors in history during their last two semesters.
A supervised, intensive examination of topical areas of history.
4993 HONORS THESIS
3 hours credit. Prerequisite: Enrollment limited to candidates for honors in history during their last two semesters.
To be taken concurrently with HIS 4983. Supervised research and preparation of an honors thesis.

## BACHELOR OF ARTS DEGREE IN POLITICAL SCIENCE

Political Science is the study of public decisions, the principles and processes by which, and the structures through which, they are made. It is concerned with the conflict among different social values and interests as they influence and are influenced by the behavior of governments and politicians. Traditionally, political science has been associated with the study of history, law, and philosophy; the contemporary discipline is more closely allied with sociology and economics. These influences are reflected in the diversity of approaches and methods used in the field. Among the major subdivisions of political science are American government and politics, comparative politics, international politics, public law, public administration, and political philosophy.

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, is $120 .{ }^{31}$

All candidates for the degree must complete:
A. 30 semester hours in the major, 21 of which must be at the upper-division level.

1. 9 semester hours of required courses are:

6 semester hours from courses numbered POL 2503 2693
SSC 4963 Social Science Conference Course
2. 21 semester hours of political science electives, 18 of which must at the upper-division level, are required, to be chosen in consultation with the student's Advisor. Nine of these hours may be applied to the major from:
ANT 3183 Peasant Societies and Modernization ECO 3273 Public Choice and The Public Finances

[^53]HIS 3093 United States Constitutional and Legal

HIS 3533 Inter-American Relations
HIS 3573 Revolutions in Latin America: Mexico, Bolivia, Cuba, Brazil, and Chile
HIS 4193 Colonialism: A Comparative Approach
PSY 3353 Political Socialization
SOC 3103 Corporate Structures
SSC 3003 Social Research Methods
SSC 3103 Major Theories of The Social Sciences
B. 40 semester hours of free electives.

## Interdisciplinary Problem Area

Candidates for the degree who elect an Interdisciplinary Problem Area must complete 39 semester hours for the combined major and the Interdisciplinary Problem Area.
A. 21 semester hours of political science in addition to those in the problem area are required including:

6 semester hours from courses numbered POL 2503. 2693
9 semester hours at the upper-division level
B. 18 semester hours in the problem area.
C. 31 semester hours of free electives.

## COURSE DESCRIPTIONS <br> POLITICAL SCIENCE (POL)

1013 INTRODUCTION TO AMERICAN POLITICS
(3-0) 3 hours credit.
Constitutional theory and political practice in the United States. Political behavior, parties and pressure groups, the Presidency and Congress, the judiciary, contemporary public policy issues. Fulfills the legislative requirement in United States government.
1023 THE POLITICS OF THE AMERICAN ECONOMY (3-0) 3 hours credit.
The Constitution, the courts and government economic inter-
vention. The new industrial state. Corporations, unions, and government. Consumer politics. Fiscal and monetary policy. The budget. Fulfills the legislative requirement in United States government.

## 1033 AMERICAN STATE POLITICS

(3-0) 3 hours credit.
A comparative examination of state constitutions, governmental structures, and politics, with special emphasis on Texas. Fulfills the legislative requirement in Texas government.

## 1043 INTRODUCTION TO TEXAS POLITICS

(3-0) 3 hours credit.
Constitutional theory and political practice in Texas. Constitutional development, the Governor and the Legislature, the judiciary, parties, pressure groups, county, city, and town government. Fulfills the legislative requirement in Texas government.

## 2013 THE POLITICAL SYSTEMS OF THE UNITED STATES AND MEXICO

(3-0) 3 hours credit.
A comparative examination of the constitutional frameworks, political institutions, and political practice of the United States and Mexico. The two revolutions, the role of the constitution, the power of the executive, Partido Revolucionario Institucional (PRI), Republicans and Democrats, the question of political opposition, federal-state relations, the politics of economic development, etc. Fulfills the legislative requirement in United States government.
2023 CIVIL LIBERTIES IN AMERICAN LAW AND PRACTICE (3-0) 3 hours credit.
An examination of the Bill of Rights and its contemporary application in the United States. The theory and history of civil liberties in America. Freedom of expression; privacy; religious freedom; legal due process; etc. Fulfills the legislative requirement in United States government.
2033 THE ORIGINS OF THE AMERICAN CONSTITUTIONAL SYSTEM
(3-0) 3 hours credit.
The political theory of the Declaration of Independence and the Constitution. The Constitutional Convention. The debate over ratification. The economic theory of the Constitution. Fulfills the legislative requirement in United States government.
2043 CONTEMPORARY PUBLIC POLICY IN TEXAS
(3-0) 3 hours credit.
The relationship between the constitutional and legal framework and contemporary policy issues. The power of the state executive office, executive-legislative relations, environmental and energy policy, state-local relations, etc. Fulfills the legislative requirement in Texas government.

## 2053 FEDERALISM IN THE UNITED STATES AND MEXICO

(3-0) 3 hours credit.
A comparative course on federal-state relations. Special emphasis is placed upon Texas and its relationship to the American national government, as compared to the state-center relationships in Mexico. Both constitutional stipulations and contemporary practice are considered. Fulfills the legislative requirement in Texas government.

## 2503 INTRODUCTION TO POLITICAL THEORY

(3-0) 3 hours credit.
The fundamental concepts and problems of politics, as viewed by the classical political philosophers and contemporary theorists: justice, power, authority, obligation, freedom, equality.
2513 PUBLIC ADMINISTRATION
(3-0) 3 hours credit.
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.

## 2603 INTERNATIONAL POLITICS

(3-0) 3 hours credit.
The theory and practice of international relationships. The character of the contemporary international system will be analyzed from several theoretical perspectives and in the light of recent diplomatic history.
2623 LAW AND SOCIETY
(3-0) 3 hours credit.
The role of law in society. The idea of natural law. Constitutional, statutory, and administrative law. The judiciary. The police and the penal system. The legal profession. While the approach of the course is comparative, special emphasis is placed on law in the United States.

## 2633 COMPARATIVE POLITICS

(3-0) 3 hours credit.
A comparative examination of the diverse forms, goals, styles, and practices of government in Western, Communist, and developing societies. Several major policies will be studied in detail.
3103 POLITICAL IDEOLOGY (3-0) 3 hours credit.
An examination of ideology as a social phenomenon affecting political behavior, and of the specific doctrines of liberalism, socialism, conservatism, fascism, and Communism.
3113 AMERICAN POLITICAL THEORY
(3-0) 3 hours credit.
The political theory of the Constitution; the Federalist Papers; Adams; Jefferson; Paine; Calhoun; Thoreau; Social Darwinism; Pragmatism; twentieth century political thought.

3133 POLITICAL PHILOSOPHY: ANCIENT AND MEDIEVAL (3-0) 3 hours credit.
The major works of Western Political philosophy from ancient times to the Renaissance. Writers examined may include Plato, Aristotle, Thucydides, Augustine, Machiavelli.
3143 POLITICAL PHILOSOPHY: MODERN (3-0) 3 hours credit.
The major works of political philosophy from the Renaissance to the nineteenth century. Writers examined may include Hobbes, Locke, Rousseau, Hebel, Marx, Mill.
3213 AMERICAN COMMUNITY POLITICS
(3-0) 3 hours credit.
City, county, town, and other units of local government and politics in the United States. The framework of state authority; political aspects of revenue sources and allocation; the sources of community influence.
3223 JUDICIAL POLITICS
(3-0) 3 hours credit.
Political behavior of the major participants in the judicial process: judges, attomeys, juries, defendents; 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.
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 AMERICAN POLITICAL CULTURE

 (3-0) 3 hours credit.The enduring patterns of American political behavior examined in light of historical and contemporary politics. The sources of these patterns and the significance of distinct political subcultures.
3293 ETHNIC POLITICS IN THE SOUTHWEST
(3-0) 3 hours credit.
The role of Mexican-American, Indian, and Black minorities in the politics of the Southwest; the responsiveness of existing political structures to ethnic problems: ethnic political organizations and influence.
EXECUTIVE-LEGISLATIVE RELATIONS IN THE UNITED STATES
(3-0) 3 hours credit.
The constitutional framework and historical development of presidential and congressional powers. Legislation. Foreign policy and war-making power. Executive privilege. Impoundment. Impeachment. Fulfills the legislative requirement in United States government.
(3-0) 3 hours credit.
The political theory of federalism; the constitutional provisions; interstate coordination of policies; local-state-federal relations; the political role of private and public interests within the federal framework. Special emphasis on Texas. Fulfills the legislative requirement in Texas government.

## 3323 CONSTITUTIONAL LAW

(3-0) 3 hours credit. Prerequisite: POL 2623, or 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. Fulfills the legislative requirement in United States government.

## 3343 POLITICAL PARTICIPATION

(3-0) 3 hours credit.
The level and modes of political participation in the United States and other societies. The impact of socioeconomic status, ethnicity, context, psychological attributes, rational calculation, regime type, and other influences upon participation.

## 3363 POLITICAL PARTIES

(3-0) 3 hours credit.
The American political party system is analyzed and compared with those of Great Britain and other democracies as well as with single-party systems in the Communist states and the Third World.

## 3373 THE LEGISLATIVE PROCESS

(3-0) 3 hours credit.
A comparative examination of legislatures in the United States and other industrial societies, their functions, structures, and future prospects.

## 3383 COMPARATIVE COMMUNIST POLITICS <br> (3-0) 3 hours credit.

A comparative examination of government and politics in the Soviet Union, China, Cuba, Yugoslavia, and other Communist societies. Ideology. The cultural and economic setting of politics. The international relations of Communist states.

## 3393 LATIN AMERICAN POLITICS

(3-0) 3 hours credit.
An examination of political institutions and their relationship to social and economic change in Latin America. The military in politics. Revolutionary movements. The economic setting.
3403 EUROPEAN POLITICS
(3-0) 3 hours credit.
The interplay of politics with the changing social and economic environment in the advanced industrial societies of Europe. Western and Eastern Europe will be treated comparatively. The Common Market in selected individual countries will be examined.

## 3413 THE POLITICS OF URBANIZING SOCIETIES

(3-0) 3 hours credit.
A comparative examination of Western and non-Western urban governments and politics, and of their capacity to respond to urban issues and problems. Topics examined include housing, transportation, and urban planning; crime and urban violence; political participation; the politics of finance and intergovernmental relations.
3423 SOCIAL CONFLICT IN THE THIRD WORLD: CLASSES, MINORITIES, AND TRADITIONAL STRUCTURES
(3-0) 3 hours credit.
A consideration of conflict situations which may arise in a developing society including conflicts between traditional and modern structures, the development of class conflicts, and the problems of minority populations.
3433 LEADERSHIP AND MODERNIZATION IN THE THIRD WORLD
(3-0) 3 hours credit.
An examination of political elites and leadership in the modernization process. Topics examined include charisma, military rule, nationalist and revolutionary leadership, and bureaucracy in Asia, Africa, and Latin America.
3503 AMERICAN FOREIGN POLICY SINCE WORLD WAR II (3-0) 3 hours credit.
A critical examination of the principles and practices of American foreign policy as it has developed since World War II.
3513 INTERNATIONAL ORGANIZATIONS
(3-0) 3 hours credit.
An examination of the leading international and regional political and economic organizations, their purposes and operations, including the United Nations, the Common Market, NATO, the Warsaw Pact, the Organization of American States.
3523 FORCE IN INTERNATIONAL POLITICS
(3-0) 3 hours credit.
An examination of war and other forms of political violence in international relations. Topics considered may include Western thought on war, causes of and justifications for war, foreign military intervention, how wars end, approaches to the reduction of international violence.

## 3603 PUBLIC POLICY ANALYSIS

(3-0) 3 hours credit.
The analysis of public policy formation and implementation. Case studies are drawn from a specific subject area, varying from year to year: e.g., the environment, welfare policies, media regulation. While emphasis is placed on the United States, comparative materials are also introduced.

## 3613 PUBLIC BUDGETING AND TAXATION

(3-0) 3 hours credit.
An examination of the process and politics of public budgeting and taxation, and of the bureaucratic behavior accompanying it.

3703 PERSONNEL ADMINISTRATION IN THE PUBLIC SECTOR (3-0) 3 hours credit. Prerequisite: POL 2513.
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.

## 3713 COMPARATIVE SYSTEMS OF PUBLIC ADMINISTRATION

 (3-0) 3 hours credit. Prerequisite: POL 2513.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.
An investigation of the philosophical, legal, and practical problems of establishing and maintaining ethical standards in government. The theory and practice of public morality in administration, public policy-making and elective politics will be examined.
4113 MODELS OF DEMOCRACY
(3-0) 3 hours credit.
The study of important democratic theorists provides a foundation for the critical and comparative analysis of several types of political systems which view themselves as democratic: e.g., U.S. constitutional liberalism, Swiss cantonal federalism, Spanish anarcho-syndicalism, Soviet and Chinese Communism, industrial democracy.
4323 ADMINISTRATIVE LAW
(3-0) 3 hours credit. Prerequisite: POL 2623.
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 values in decision making.
4353 POLITICAL LEADERSHIP AND ELITES
(3-0) 3 hours credit.
A survey of the major theoretical and empirical approaches to the study of political elites and leadership. Sociological, psychological, and historical perspectives are examined along with those of political science.

## 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.
4933 INTERNSHIP IN POLITICAL SCIENCE
49363 or 6 hours credit. Prerequisite: 15 semester hours in accounting. To provide students with knowledge gained through experiential activities in professional life. Joint cooperation with business and governmental institutions in structuring and monitoring work experience aimed at supplementing the classroom learning process.
4953 SPECIAL STUDIES IN POLITICAL SCIENCE
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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.
4983 HONORS SEMINAR
(3-0) 3 hours credit. Prerequisite: Enrollment limited to candidates for honors in political science during their last two semesters.
A supervised, intensive examination of topical areas of political science.

## 4993 HONORS THESIS

3 hours credit. Prerequisite: Enrollment limited to candidates for honors in political science during their last two semesters. To be taken concurrenty with POL 4983. Supervised research and preparation of an honors thesis.

## BACHELOR OF ARTS DEGREE IN PSYCHOLOGY

Psychology is the study of animal, and particularly human, behavior and of cognitive processes and thought. Modern psychology includes a wide variety of subspecialities such as perception, memory, learning, physiological processes, thinking, motivation, emotion, social behavior, personality, child development, and psychopathology. The psychology student is exposed to the varying theoretical and methodological approaches used by psychologists and learns the facts and concepts of several different approaches.

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements is $120 .{ }^{32}$

All candidates for the degree must complete:
A. 30 semester hours in the major, 21 of which must be at the upper-division level.

1. 12 semester hours of required courses are:

PSY 2013 Fundamentals of Psychology
6 semester hours from courses numbered PSY 25032593
SSC 4963 Social Science Conference Course
2. 18 semester hours of psychology electives are required, to be chosen in consultation with the student's Advisor. Any of the following courses may be counted toward the psychology major:
SOC 3253 Theories of the Individual and Society SOC 3293 Sex Roles
SSC 3003 Social Research Methods

[^54]In addition, up to six semester hours may be applied to the major from:

ANT 3613 Cross-Cultural Studies of Socialization ANT 3623 Primate Behavior
BBL 3043 Psychological Considerations in a Bicultural Environment
BIO 3463 Human Physiology
BIO 3471 Human Physiology Lab
COM 3083 Communication Theory
ECE 3123 Development and Learning in Early Childhood

GRG 4103 Ethnogeography
LNG 3843 Psychology of Language
LNG 4143 Language Development
MAT 3013 Statistical Methods in The Life and Social Sciences II
MGT 3253 Interpersonal Communication
PHI 3033 Philosophy of Science
SOC 3053 Deviance and Conformity
SOC 3063 Collective Behavior
SSC 3103 Major Theories of the Social Sciences
B. 40 semester hours of free electives.

## Interdisciplinary Problem Area

Candidates for the degree who elect an Interdisciplinary Problem Area must complete 39 semester hours for the combined major and the Interdisciplinary Problem Area.
A. 21 semester hours of psychology in addition to those in the problem area are required including:

PSY 2013 Fundamentals of Psychology
9 semester hours from courses numbered PSY 25032593
9 semester hours at the upper-division level
B. 18 semester hours in the problem area.
C. 31 semester hours of free electives.

## 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 and problem-solving in animals and human beings.
2503 DEVELOPMENTAL PSYCHOLOGY
(3-0) 3 hours credit. Prerequisite: PSY 2013 or consent of instructor.
Problems, methods and results in the study of the psychological development of the individual from birth to old age.

## 2513 ABNORMAL PSYCHOLOGY

(3-0) 3 hours credit. Prerequisite: PSY 2013 or consent of instructor.
Dynamics of abnormal behavior, with attention to neurotic personality, neurotic symptom formation and psychosomatic disorders. Further topics include the effects of brain injuries and the major psychoses.

## 2523 PERSONALITY

(3-0) 3 hours credit. Prerequisite: PSY 2013 or consent of instructor.
Development and maintenance of typical modes of behavior and dynamics of adjustment as conceptualized by the principal theorists.
2533 SOCIAL PSYCHOLOGY
(3-0) 3 hours credit. Prerequisite: SOC 1013 or PSY 2013 or consent of instructor.
The impact of interaction and communication on personality development and interpersonal influence: self-identity, values and attitudes, role behavior and social perception.
2543 THEORIES OF LEARNING
(3-0) 3 hours credit. Prerequisite: PSY 2013 or consent of instructor.
Alternative theories of the acquisition, elimination and maintenance of behavior and the effects of previous experience on responses to new situations.
2553 PERCEPTION
(3-0) 3 hours credit. Prerequisite: PSY 2013 or consent of instructor.
Consideration of the innate basis and role of experience in sensation and perception, with emphasis on human vision. Topics include psychophysics, color vision, perceptual organization, and the role of social and cultural factors in perception. instructor.
The biological, 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.
3013 PSYCHOLOGICAL MEASUREMENT
(3-0) 3 hours credit. Prerequisite: PSY 2013 and MAT 2013 or consent of instructor.
The application of quantitative and qualitative measures to psychological data, interpretational strategies, and assessments of validity and reliability.

3023 SOCIAL PSYCHOLOGY OF SMALL GROUPS
(3-0) 3 hours credit. Prerequisite: PSY 2533 or ENG 1043 or consent of instructor.
Theory and modern research in the social psychology of diads, triads, and small groups. Group dynamics, balance theory, non-verbal communication and small group research design are given particular attention.

## 3043 COMPARATIVE PSYCHOLOGY

(3-0) 3 hours credit. Prerequisite: PSY 2013 or consent of instructor.
Comparative study of the social behavior of various species of animals, including man, from a phylogenetic perspective.

3053 CROSS-CULTURAL PSYCHOLOGY
(3-0) 3 hours credit. Prerequisite: 1 course each in Psychology and Anthropology or consent of instructor.
Perception, learning, cognition and thinking, personality and social behavior from a cross-cultural perspective.
3103 COGNITION
(3-0) 3 hours credit. Prerequisite: 2 Psychology courses or consent of instructor.
The integration of perceptual experience, attention, memory, and the role of language in thought. Emphasis on the structure of consciousness and the processes of thinking.
3113 MOTTVATION
(3-0) 3 hours credit. Prerequisite: 2 Psychology courses or consent of instructor.
Examination of causal and purposive accounts of human behavior, and of the biological and learned foundations of motivation. Particular emphasis is given to the causes of volitional behavior.

## 3123 ATTITUDES

(3-0) 3 hours credit. Prerequisite: PSY 2533 or consent of instructor.
Consistency and learning models of attitude acquisition and
change. Theories and research on the relationships between attitudes and behavior with attention to various techniques of attitude measurement.

## 3133 THINKING AND CREATIVITY

(3-0) 3 hours credit. Prerequisite: 2 Psychology courses or consent of instructor.
The processes of reasoning, problem-solving, and creativity. The role of logic in thinking, heuristic and algorithmic methods of problem-solving, and convergent and divergent thinking.

3203 INDUSTRIAL PSYCHOLOGY
(3-0) 3 hours credit. Prerequisite: 2 Psychology courses or MGT 3023 or consent of instructor.
Applications of psychological knowledge to industrial problems such as personnel selection, employee motivation and satisfaction, and the influence of organizations on behavior. The role of psychology in industry.

3283 SOCIALIZATION
(3-0) 3 hours credit. Prerequisite: PSY 2503 or PSY 2533 or consent of instructor.
The study of how people learn to behave appropriately and to internalize the values of groups. Particular emphasis is given to moral development and to the relationships between children and parents and the outcomes of these relationships for socialization.

## 3353 POLITICAL SOCIALIZATION

(3-0) 3 hours credit.
The acquisition of political attitudes in childhood, adolescence, and adulthood. The impact of the family, school, informal group, job, media. Elite socialization. The sources of political dissent and opposition. Both American and comparative studies are examined.
351 ; PSYCHOPATHOLOGY AND CHILDHOOD
(3-0) 3 hours credit. Prerequisite: PSY 2513 or consent of instructor.
Clinical and experimental research on the effects of maternal deprivation, autistic children, childhood neuroses and schizophrenia, and the psychological bases of therapeutic techniques.
3523 PSYCHOLOGICAL PROBLEMS OF THE AGED
(3-0) 3 hours credit. Prerequisite: PSY 2503 or consent of instructor.
Traditional and modern approaches to the social, institutional, neurological, and physical bases of aging.
3533 BEHAVIOR CHANGE AND PSYCHOTHERAPY
(3-0) 3 hours credit. Prerequisite: PSY 2513 or consent of instructor.
Classic and modern theories and related research on the process of behavior and value change, particularly in the contexts of
rehabilitation and psychotherapy. Comparison of various models and their empirical support, the definition of progress and cure, and the linkage of attitude and value change to behavior change.
3633 AGGRESSION
(3-0) 3 hours credit. Prerequisite: ANT 1013 or PSY 2013 or consent of instructor.
Survey of social and psychological data, findings and theory on aggression, both human and non-human.

## 4003 HISTORY OF PSYCHOLOGY

(3-0) 3 hours credit.
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 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 Paigetian models.
4123 PERSONALITY DEVELOPMENT
(3-0) 3 hours credit. Prerequisite: PSY 2503 or consent of instructor.
The development of stable individual differences and personality structures throughout the life span.
4143 MEMORY
(3-0) 3 hours credit. Prerequisite: PSY 3103 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.
4153 ATTENTION
(3-0) 3 hours credit. Prerequisite: PSY 3103 or consent of instructor.
The role of stimulus characteristics and of motivation and physiological status in visual and auditory attention.
4203 PROSOCIAL BEHAVIOR
(3-0) 3 hours credit. Prerequisite: PSY 2533 or consent of instructor.

Cooperation, altruism, interpersonal attraction, and the development of relationships, including such underlying mechanisms as empathy, self-presentation and self-disclosure, norms, and trust.
4213 PERSON PERCEPTION
(3-0) 3 hours credit. Prerequisite: PSY 2533 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 person perception processes.
4223 ENVIRONMENTAL PSYCHOLOGY
(3-0) 3 hours credit. Prerequisite: PSY 2533 or consent of instructor.
How environments are perceived and construed and the effects of such construal on behavior. The role on environmental factors such as noise and behavior in urban settings.
4233 FREUDIAN PSYCHOLOGY
(3-0) 3 hours credit.
Study of the development of Freud's thought through a chronological survey of some major works and through consideration of Freud's background and life. The influence of Freud on such neo-Freudian schools as Adler, Horney, and Fromm and the impact of Freudian and neo-Freudian ideas on the social sciences.

## 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 PSYCHOLOGY
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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.
4983 HONORS SEMINAR
(3-0) 3 hours credit. Prerequisite: Enrollment limited to candidates for honors in psychology during their last two semesters.
A supervised, intensive examination of topical areas of psychology.
4993 HONORS THESIS
3 hours credit. Prerequisite: Enrollment limited to candidates for honors in psychology during their last two semesters.
To be taken concurrently with PSY 4983. Supervised research and preparation of an honors thesis.

## BACHELOR OF ARTS DEGREE IN SOCIOLOGY

Sociology is the study of human social relationships and the products of these relationships. Sociologists investigate the organization and structure of societies, communities, and smaller groups and the manner in which these social units function, change, and affect individuals and groups. Specialized areas of sociological research include social psychology, child-rearing, race relations, criminology, deviance, aging, and urban and medical sociology.
The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, is $120 .{ }^{33}$
All candidates for the degree must complete:
A. 30 semester hours in the major, 21 of which must be at the upper-division level.

1. 18 semester hours of required courses are:

SOC 1013 Social Structure
SOC 4103 Survey Research Methods or
SSC 3003 Social Research Methods
SSC 4963 Social Science Conference Course
6 semester hours from courses numbered SOC 2013-2093
3 semester hours from:
SOC 3083 Theories of Social Change
SOC 3253 Theories of the Individual and Society
SOC 4163 Contemporary Sociological Theory
SSC 3103 Major Theories of the Social Sciences
2. 12 semester hours of sociology electives are required to be chosen in consultation with the student's

[^55]Advisor. Nine of these hours may be applied to the major from:

ANT 3223 Cultural Ecology
ECO 4293 Economics of Discrimination and Poverty
MAT 3013 Statistical Methods in the Life and Social Sciences II
MGT 3023 Organizational Behavior
LNG 3833 Sociology of Language
PSY 2533 Social Psychology
PSY 3023 The Social Psychology of Small Groups
PSY 3283 Socialization
SSC 3003 Social Research Methods
SSC 3103 Major Theories of the Social Sciences
B. 40 semester hours of free electives.

## Interdisciplinary Problem Area

Candidates for the degree who elect an Interdisciplinary Problem Area must complete 39 semester hours for the combined major and the Interdisciplinary Problem Area.
A. 21 semester hours of sociology in addition to courses in the problem area are required including:

SOC 1013 Social Structure
6 semester hours from courses numbered
SOC 2013-2053
6 semester hours at the upper-division level.
B. 18 semester hours in the problem area.
C. 31 semester hours of free electives.

COURSE DESCRIPTIONS

## SOCIOLOGY

(SOC)

## 1013 SOCIAL STRUCTURE

(3-0) 3 hours credit.
An introduction to concepts used to analyze the structure of human groups, the relationships of individuals to those groups, and processes of social change.

2023 URBAN SOCIOLOGY
(3-0) 3 hours credit. Prerequisite: SOC 1013 recommended.
Development of modern world cities, the ecology of cities, the organization of cities, major social problems, the social psychology of urban life.

## 2033 POPULATION DYNAMICS

(3-0) 3 hours credit. Prerequisite: SOC 1013.
The demographic analysis of world population trends and their projected consequences. Trends in selected countries are considered, together with associated population policies and options.
2063 RACE AND ETHNIC RELATIONS
(3-0) 3 hours credit. Prerequisite: SOC 1013 recommended.
Dominant-subordinant relations in world societies, with major emphasis on the United States. Models of plural and class society, and uses and consequences of power are examined.
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.

## 3053 DEVIANCE AND CONFORMITY

(3-0) 3 hours credit. Prerequisite: SOC 1013 recommended.
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; SOC 2063 recommended. Case studies and associated theory dealing with various forms of collective behavior and social movements, including mobs, revolutions, cults and panics.
3073 MIGRATION AND ADJUSTMENT
(3-0) 3 hours credit. Prerequisite: SOC 1013 recommended.
Geographic movement of populations, ties to economic, physical ideological and social features and resultant problems of adjustment. Special attention given to the movement of Latin Americans into the United States.
3083 THEORIES OF 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 <br> CORPORATE STRUCTURES

(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. Prerequisite: SOC 1013.
Extent, types, and causes of crime. The production of crime statistics. Social reactions to crime: police, courts, and correctional institutions.

## 3133 SOCIOLOGY OF PLURALISM IN THE SOUTHWEST

(3-0) 3 hours credit. Prerequisite: SOC 1013 or consent of instructor.
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.
3143 JUVENILE DELINQUENCY
(3-0) 3 hours credit. Prerequiste: SOC 1013 recommended.
Analysis of the extent, distribution and varieties of juvenile crime, with a survey of classic and contemporary sociological research on its causes, prediction and prevention.
3163 THE MASS MEDIA, GOVERNMENT, AND PUBLIC OPINION (3-0) 3 hours credit.
An examination of the relationships between the press and electronic media and government, and of the role of the media in shaping public opinion. Topics to be covered may include: investigative reporting; news management; government regulation of the media; shield laws; the concentration of media ownership and control.

## 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, life styles, and world view. Determinants of work satisfaction.
3203 GERONTOLOGY
(3-0) 3 hours credit. Prerequisite: SOC 1013.
An examination of the role of older persons in selected societies and the distinctive problems which they confront. The social organization of death and dying.
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 beliefs to health, illness, treatment and recovery; health institutions; the distribution of medical resources and organization of health care delivery.
3253 THEORIES OF 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. Symbolic interaction, exchange theory, conditioning and stimulus response theory, imitation and modeling, role theory, and socialization theories.

## 3283 POVERTY

(3-0) 3 hours credit. Prerequisite: SOC 1013.
The causes and consequences of poverty in the United States and selected other societies. An examination of social programs designed to combat poverty.
3293 SEX ROLES
(3-0) 3 hours credit. Prerequisite: 2 courses in Psychology of Sociology or consent of instructor.
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.

## 3303 WOMEN AT WORK

(3-0) 3 hours credit. Prerequisite: SOC 1013 or MGT 3013.
Consideration of problems faced by men and women working together in management. Investigation of patterns of female labor force participation, with special emphasis upon entry of women into management positions and their functioning in these positions.
3333 UTOPIAS
(3-0) 3 hours credit. Prerequisite: SOC 1013.
A critical examination of utopian social experiments and the conditions under which they have succeeded or failed.
3343 LIFE STYLES
(3-0) 3 hours credit. Prerequisite: SOC 1013.
An analysis of alternative patterns of consumption in contemporary societies, along lines suggested by Max Weber. The relationship between life style and economic resources, region, race and ethnicity, occupation, and world view. Political and other social constraints upon deviant life styles.

## 3363 THE SOCIOLOGY OF KNOWLEDGE

(3-0) 3 hours credit. Prerequisite: SOC 1013.
The relationship between social structures and modes of thought: theology, ideology, science, and other belief systems. The impact of society on science and of science on society. Invention, discovery, and the knowledge explosion.
(3-0) 3 hours credit. Prerequisite: SOC 1013.
An advanced course in sociological research, including research design, questionnaire construction, sampling, interviewing, control procedures, data processing, statistical analysis and interpretation of results.
4113 SOCIAL INDICATORS AND SOCIAL PLANNING
(3-0) 3 hours credit. Prerequisites: SOC 1013 and MAT 2013.
Techniques for anticipating future trends. Construction and use of social indicators and evaluation of projective techniques.
4163 CONTEMPORARY SOCIALOGICAL 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.
4173 COMPARATIVE FAMILY STRUCTURES
(3-0) 3 hours credit. Prerequisite: SOC 1013 recommended.
A review of research comparing major conventional and alternative family structures in industrial countries.

## 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 SOCIOLOGY

(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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.
4983 HONORS SEMINAR
(3-0) 3 hours credit. Prerequisite: Enrollment limited to candidates for honors in sociology during their last two semesters.
A supervised, intensive examination of topical areas of sociology.
4993 HONORS THESIS
3 hours credit. Prerequisite: Enrollment limited to candidates for honors in sociology during their last two semesters.
To be taken concurrently with SOC 4983. Supervised research and preparation of an honors thesis.

## COURSE DESCRIPTIONS

## SOCIAL SCIENCE

(SSC)
3003 SOCIAL RESEARCH METHODS
(3-0) 3 hours credit.
An interdisciplinary treatment of observational and descriptive research techniques in the social science, with attention to research design; participant-observation; interviews and survey questionnaires; validity, reliability and sampling; and coding and tabulation techniques.
3103 MAJOR THEORIES OF THE SOCIAL SCIENCES (3-0) 3 hours credit.
A review of seminal theories in nineteenth- and twentiethcentury social science, illustrated in cases of socal behavior. The contributions of Marx, Keynes, Durkheim, Weber, Freud, Malinowski, Skinner, and Chomsky.
3213 THEORIES OF THE CITY (3-0) 3 hours credit.
A survey of current and classic explanations of the city including the city as polity, the city as plan, the city and the hinterland, and the advent of the metropolis, drawing on the various social sciences, philosophy and the arts.
4963 SOCIAL SCIENCE CONFERENCE COURSE
(3-0) 3 hours credit. Prerequisite: Enrollment limitd to Social Science majors in their last two semesters.
A course designed to integrate the social sciences with the student's major discipline and explore related research findings.

## College of Multidisciplinary Studies

The College of Multidisciplinary Studies is a collaborative, innovative College composed of Divisions of BiculturalBilingual Studies, Education, Environmental Management and Special Programs. The unifying factor of its disparate Divisions is the orientation toward programs and problems to suit individual student needs and goals. Program formulation utilizes university-wide resources from the sciences, the humanities, business, and the fine arts.

## DIVISION OF BICULTURAL-BILINGUAL STUDIES

The Division does not offer an undergraduate degree in Bi -cultural-Bilingual Studies. Support courses that may be taken as electives are designed to provide students with training in bilingual and second language learning and teaching, as well as in associated cultural studies. These courses are of particular interest to students in bilingual teacher education at the elementary and secondary levels and to those majoring in business, law, social work, public relations, journalism, etc., who wish to apply cultural knowledge in their careers.

The Division also offers courses in English as a Second Language designed to introduce students to the various strategies and methods of analysis of languages. Courses are designed for students who plan to teach second languages, but they are also of benefit to those who intend to teach in other areas or to enter fields that rely heavily on an understanding of language, such as communications, speech therapy, law, and business. Courses in English as a Second Language are also of value to those whose principal aim is to enlarge their understanding of the role that language plays in society.

## COURSE DESCRIPTIONS BICULTURAL-BILINGUAL STUDIES (BBL)

3013 CONTRASTIVE LINGUISTICS AND BILINGUALISM (3-0) 3 hours credit.
A historical and descriptive study of Spanish and English with major emphasis on the phonological and morphological aspects of the two languages. Problems of linguistic interference as applied to the bilingual in the Southwest will be explored along with means of dealing with these problems.
3023 MEXICAN-AMERICAN CULTURE
(3-0) 3 hours credit.
A sociological perspective on the Mexican-American in family life, in social institutions, in the economic and political life of the area. Includes an analysis of changing values and urbanization.
3033 THE MEXICAN-AMERICAN IN THE SOUTHWEST
(3-0) 3 hours credit.
Historical foundations of U.S.-Mexico biculturalism in the area. Factors in the development of the area during the colonial era are studied as background for the contemporary bicultural Southwest.

Mexican-American contributions to politics and economics of the area are considered, with primary emphasis on the political and economic aspects.
3043 PSYCHOLOGICAL CONSIDERATIONS IN A BICULTURAL ENVIRONMENT.
(3-0) 3 hours credit.
An introduction to: stereotyping versus psychological insights as applied in research, education, mental health, the legal system and interpersonal relations; psychological implications of the concept of disadvantagedness; psychological mechanisms in first and second language acquisition; cross-cultural studies in learning styles and their relevance to the bicultural classroom.
3133 COMMUNICATIVE COMPETENCE IN A SPANISH-ENGLISH BILINGUAL SOCIETY
(3-0) 3 hours credit.
An examination of the theories of first and second language acquisition; analysis of the characteristics of the nature of language. Development of strategies for developing bilingualism and application of these strategies to a bicultural-bilingual program.
4023 FOUNDATIONS OF BICULTURAL-BILINGUAL EDUCATION (3-0) 3 hours credit.
A thorough investigation of the philosophies, research, and theories of bicultural-bilingual education as it relates to the learning process of individual children.
4063 TEACHING CONTENT IN A BICULTURAL-BILINGUAL EDUCATION PROGRAM
(3-0) 3 hours credit.
Investigation and evaluation of curriculum and materials available in different content areas appropriate for teaching children in a bicultural-bilingual program. Directed field experiences and micro-teaching in the target languages.

## COURSE DESCRIPTIONS ENGLISH AS A SECOND LANGUAGE (ESL)

3013 APPLICATIONS OF LINGUISTICS I
(3-0) 3 hours credit.
A study of the applications of linguistics to the teaching of English to the non-native speaker: an overview.
3023 APPLICATIONS OF LINGUISTICS II
(3-0) 3 hours credit. Prerequisite: ESL 3013.
A study of the applications of linguistics to the teaching of English to the non-native speaker: English structure and the ESL teacher.

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## DIVISION OF EDUCATION

The Division of Education has a two-fold purpose: (1) to offer degree programs for students interested in education as a field of study and (2) in conjunction with other Divisions of UT San Antonio, to prepare students for Teacher Certification by providing the professional education component of all Teacher Certification Programs.

UT San Antonio serves a confluence of cultures. Students have continuing opportunities to observe classroom instruction of the diverse ethnic groups in the San Antonio metropolitan area. This enables students to make realistic and effective decisions about careers and suitable teaching strategies. By embarking upon professional associations, experiences, and observations during their college careers, students have time to consider carefully their commitments to the teaching profession. The undergraduate teacher education program provides students an adequate background for the broad profession of teaching as well as for working in the more localized setting of South and Central Texas.

At the undergraduate level, two degree programs are available, the Bachelor of Arts Degree in Early Childhood and Elementary Education and the Bachelor of Science Degree in Health and Physical Education. Although a degree in education and a teaching certificate are two different objectives, students wishing to be certified as elementary teachers or kindergarten teachers as well as students wishing to be certified as teachers of health and/or physical education at the elementary and/or secondary level should pursue one of these two degree programs in education. Students majoring in these two degree programs should enroll in professional education courses throughout the sophomore, junior, and senior years. In the first semester of their freshman year they should contact the Undergraduate Advisor of the Division of Education to facilitate program planning. Failure to do so may result in a longer degree program than might otherwise be required.

Any student at UTSA can elect to take education courses and if later admitted to a teacher education program, can petition to have the courses counted toward that program.

Students wishing to be certified as secondary school teachers in other academic areas follow degree programs in other Divisions of UT San Antonio and take courses for Teacher Certification in the Division of Education. ${ }^{34}$

## BACHELOR OF ARTS DEGREE IN EARLY CHILDHOOD AND ELEMENTARY EDUCATION

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, is 126 , of which at least 57 must be at the upper-division level.

All candidates for the degree must complete:
A. 24 semester hours in one of the three groups of courses listed below:

1. Elementary Education

ECE 3213 Language Arts in the Elementary School
ECE 3223 Social Science in the Elementary School
ECE 3233 Mathematics in the Elementary School
ECE 3303 Reading in the Primary Grades
ECE 3313 Reading in the Intermediate Grades
ECE 4133 The Expressive Modes of Children in the Elementary School
ECE 4213 Science in the Elementary School
ECE 4243 Second and Foreign Languages in the Elementary School

3 hours of upper-division electives in elementary education.
2. Early Childhood Education
ECE 3103 Young Children's Literature and Story-

ECE 3113 Play and Creative Activities in Early Childhood Education
ECE 3123 Development and Learning in Early Childhood

[^57]ECE 3133 Programs in Early Childhood Education
ECE 4103 Guidance of Young Children in Groups
ECE 4113 Language Development and Reading in Early Childhood Education
ECE 4123 Parents and Community Resources in Early Childhood and Elementary Education

3 hours of approved upper-division electives.
3. Reading

ECE 3323 Skill Development in the Reading Program
ECE 4303 Introduction to Reading Problems
ECE 4936 Practicum in Reading
12 hours of approved upper-division electives.
B. 22 semester hours of course work in education, 21 of which are at the upper-division level.

Required courses are:
EDU 2001 Introduction to the School Environment
EDU 3003 Educational Sociology
EDP 3013 Growth, Development and Learning Theories I
EDP 4013 Growth, Development and Learning Theories II
EDU 4013 Classroom Climate in the Elementary School
EDU 4031 Media Technology
EDU 4046 Student Teaching: Elementary ${ }^{35}$
EDU 4072 Individualized Clinical Experiences
C. 30 semester hours of free electives, 12 of which must be at the upper-division level. Students interested in teaching handicapped children elect a 24 hour collateral field in special education. However, these electives may be taken from any Division of The University and for students seeking certificates may be used to satisfy a second teaching field.

[^58]BACHELOR OF SCIENCE DEGREE IN HEALTH AND PHYSICAL EDUCATION

The minimum number of semester hours for this degree, including the 50 hours of General Education Requirements, ${ }^{36}$ is 126 , of which at least 57 must be at the upper-division level.

All candidates for the degree must complete:
A. 24 semester hours in Physical Education, or 24 semester hours in Health, or 24 semester hours in a combination of Health and Physical Education.

1. Physical Education

24 semester hours are required from the following:
HPE 3403 The Foundations of Physical Education HPE 3413 The Elementary School Physical Education Program
HPE 3423 The Secondary School Physical Education Program
HPE 3433 Individual and Dual Lifetime Sports
HPE 3443 Principles of Exercise and Physical Fitness
HPE 4403 Motor Learning and Skill Performance
HPE 4413 Coaching and Officiating
HPE 4423 Adapted and Remedial Physical Education HPE 4433 Gymnastics
2. Health

24 semester hours are required from the following:
HPE 3503 The Foundations of Health Education
HPE 3513 The Elementary School Health Program
HPE 3523 The Secondary School Health Program
HPE 3533 Drug Education
HPE 3543 Physical Growth and Development
HPE 4503 Personal and Family Health
HPE 4513 Consumer Health
HPE 4523 Human Sexuality
HPE 4533 Nutrition

[^59]3. Health and Physical Education

24 semester hours are required from the 18 listed above under Physical Education and Health. These are to be selected in consultation with the student's Advisor.
B. 22 semester hours of support work, 21 of which are at the upper-division level.

Required courses are:
EDU 2001 Introduction to the School Environment
EDU 3003 Educational Sociology
EDP 3013 Growth, Development and Learning Theories I
EDP 4013 Growth, Development and Learning Theories II

EDU 4013 Classroom Climate in the Elementary School or
EDU 4093 Classroom Climate in the Secondary School
EDU 4031 Media Technology
EDU 4046 Student Teaching: Elementary ${ }^{37}$ or
EDU 4056 Student Teaching: Secondary
EDU 4072 Individualized Clinical Experiences
C. 30 semester hours of free electives, 12 of which must be at the upper-division level. These may be taken from any Divison of The University and for students seeking certificates can be used to satisfy a second teaching field. ${ }^{38}$

All students selecting a degree in Health and Physical Education must elect 3 hours of HPE 1001 (Individual and Dual Physical Activity Sports) and 3 hours of HPE 1101 (Team Sports).

[^60]COURSE DESCRIPTIONSEARLY CHILDHOOD AND ELEMENTARY EDUCATION(ECE)
3103 YOUNG CHILDREN'S LITERATURE AND STORYTELLING(3-0) 3 hours credit.A review of books, stories, and library materials including audio-visual materials and aids for young children. Students becomeacquainted with books for the very young, their authors and illus-trators. Criteria for selection and methods of presentation arestressed. Practice is given in reading and telling stories to children.
3113 PLAY AND CREATIVE ACTIVITIES IN EARLY CHILDHOOD EDUCATION
(2-1) 3 hours credit.A multi-arts integrated approach to fostering creative expressionin young children through experiences in art, music, movement,dramatics, and play. Students develop materials, plan activities,and share ideas and skills.
3123 DEVELOPMENT AND LEARNING IN EARLY CHILDHOOD (3-0) 3 hours credit.Growth and development during infancy and early childhood.Reviews and integrates physical, social, emotional, and cog-nitive development. Includes motivation and early learning.Emphasizes individual differences, developmental assessment,need to optimize the match between developmental sequencesand experience. Practice in observing and recording behavior.
3133 PROGRAMS IN EARLY CHILDHOOD EDUCATION (3-0) 3 hours credit.Review of historical, philosophical, and psychological foundationsof nursery-kindergarten methods. Current trends and programmodels for day care, nursery school and kindergarten. Observationsto be arranged.
3203
EVALUATION AS FEEDBACK AND GUIDE IN ELEMEN- TARY EDUCATION(3-0) 3 hours credit.A study of activities and developmental skills needed to carryout evaluation of different segments of life of the individualstudent.
3213 LANGUAGE ARTS IN THE ELEMENTARY SCHOOL(3-0) 3 hours credit. Prerequisites: 3 hours Speech, 3 hoursEnglish Composition or consent of instructor.A systematic study of teaching and learning activities in reading,spelling, composition, listening, and handwriting in the ele-mentary school.
3223 SOCIAL SCIENCE IN THE ELEMENTARY SCHOOL(3-0) 3 hours credit. Prerequisites: Completion of the GeneralEducation Requirements in history and government or consentof instructor.

An overview of the purposes, selection, and organization of content, teaching, and learning procedures, and evaluation of outcomes in the elementary school social science program.
3233 MATHEMATICS IN THE ELEMENTARY SCHOOL
(3-0) 3 hours credit. Prerequisites: Completion of the General Education Requirements in mathematics or consent of instructor. An overview of the purposes, selection, and organization of content, teaching, and learning procedures, and evaluation of outcomes in the elementary school mathematics program.
3303 READING IN THE PRIMARY GRADES
(3-0) 3 hours credit. Prerequisites: Completion of the General Education Requirements in English or consent of instructor.
Introduction to the basic principles of reading instruction, including readiness for reading, initial stages of reading development with emphasis on primary programs, individual differences among students. Observation of and participation in alternate methods and organizational patterns in a school setting.
3313 READING IN THE INTERMEDIATE GRADES
(3-0) 3 hours credit. Prerequisite: ECE 3303 or consent of instructor.
Basic principles of reading instruction for grades 4, 5, and 6, including transfer of reading skills to content area reading, development of comprehension, word recognition, vocabulary, and rate. Observation of and participation in alternate methods and organizational patterns in a school setting.
3323 SKILL DEVELOPMENT IN THE READING PROGRAM (2-3) 3 hours credit.
Skill development in the perceptual and conceptual areas. Relationships between skill development, child development, and curriculum development. The skills in reading growth are viewed as developmental and interrelated.
4103 GUIDANCE OF YOUNG CHILDREN IN GROUPS
(3-0) 3 hours credit. Prerequisite: ECE 3123 or consent of instructor.
A study of basic teaching skills; play as education, curriculum areas, program planning, and necessities of space, equipment, and supplies. It includes designing and evaluating activities to optimize learning and development. Participant-observation is an integral part of the course.

## 4113 LANGUAGE DEVELOPMENT AND READING IN EARLY CHILDHOOD EDUCATION <br> (3-0) 3 hours credit. <br> Introduction to theories of language acquisition and development. Facilitating communication skills in young children and planning for the precocious reader. Relates principles of language learning to concepts of learning to read.

4123 PARENTS AND COMMUNITY RESOURCES IN EARLY CHILDHOOD AND ELEMENTARY EDUCATION
(3-0) 3 hours credit. Prerequisite: EDU 3003 or consent of instructor.
Increasing parental effectiveness through involvement and parent education; planning parent workshops, group meetings, parentteacher conferences, and supportive programs. Students learn the techniques of interviewing and surveying children and family services and resources within the community.

## 4133 THE EXPRESSIVE MODES OF CHILDREN IN THE ELEMENTARY SCHOOL

(3-0) 3 hours credit. Prerequisites: MUS 3653 or consent of instructor.
Multi-cultural approach to the structuring of experiences for children in creative dramatics, creative musical expression, children's folklore, art projects, socio-dramatic play, rhythmic movement, creative verbal and non-verbal expression. Examination also of the varying roles of the teacher in these experiences.

## 4213 SCIENCE IN THE ELEMENTARY SCHOOL

(3-0) 3 hours credit. Prerequisites: Completion of the General Education Requirements in science or consent of instructor.
An overview of the purposes, selection, and organization of content, teaching, and learning procedures, and evaluation of outcomes in the elementary school science program.
4243 SECOND AND FOREIGN LANGUAGES IN THE ELEMENTARY SCHOOL
(3-0) 3 hours credit. Prerequisites: Completion of the General Education Requirements in foreign language or consent of instructor.
A review of past practices and present trends in second and foreign language teaching in the elementary school. Examination of the relation of the child's developmental levels, adult attitudes, and pressure group influences to second and foreign language teaching and learning.

## 4303 INTRODUCTION TO READING PROBLEMS

(2-4) 3 hours credit. Prerequisite: 6 semester hours of reading courses.
An intensive study of and laboratory experience in reading problems in the classroom, including causation. Diagnostic procedures and remedial measures in reading disability are developed.

## 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.

4933 PRACTICUM IN READING
49363 or 6 hours credit. Prerequisite: 15 semester hours of reading courses or consent of instructor.
Application of diagnostic and remedial procedures in small group situations. Guided field based experiences with weekly seminars designed to enrich the field experience.

4953 SPECIAL STUDIES IN EARLY CHILDHOOD AND ELEMENTARY EDUCATION
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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 EDUCATION <br> (EDU)

2001 INTRODUCTION TO THE SCHOOL ENVIRONMENT (1-0) 1 hour credit.
Field observation of the life space of learners with campusbased discussions relating observations to implications for curricular content, behavioral expectations of value orientation and individual societal needs.
3003 EDUCATIONAL SOCIOLOGY
(3-0) 3 hours credit. Prerequisite: EDU 2001.
A study of the ways in which the school can effectively utilize the social process in developing and educating the individual and to show the interrelationships of the school with the family, the church, and other societal agencies particularly in the social and cultural setting of the Southwestern United States.

## 3303 READING COMPREHENSION SKILLS FOR SECONDARY TEACHERS

(3-0) 3 hours credit.
The nature of developmental reading programs at the secondary level, and reading skills needed in the content area fields.

4013 CLASSROOM CLIMATE IN THE ELEMENTARY SCHOOL (3-0) 3 hours credit. Prerequisites: EDP 3013, EDU 3003, concurrent enrollment in EDU 4043-6 and 4072, and permission of the Director of Student Teaching required. Students must inform the Director of Student Teaching of their plans to enroll in this course one semester in advance. The study of and practice in identifying and developing curricular materials, planning for instruction, developing effective elementary classroom climate, and evaluating instructional outcomes particularly in the context of the Southwestern United States; the methodology of instruction
as related to specific disciplines. (This course is offered in multiple sections according to the subject matter to be taught.)
4031 MEDIA TECHNOLOGY
(0-1) 1 hour credit.
Laboratory experience with the use of audio-visual equipment and materials in teaching.
4043 STUDENT TEACHING: ELEMENTARY
40463 or 6 hours credit. Prerequisites: EDP 3013, EDU 3003, 15 of the 24 hours in elementary methods (e.g., ECE $3213,3223,3233$, $3303,3313,4133,4213$ and 4243) and permission of the Director of Student Teaching required. Students must inform the Director of Student Teaching of their plans to enroll in this course one semester in advance.
Field-based experiences in the elementary school.
4053 STUDENT TEACHING: SECONDARY
40563 or 6 hours credit. Prerequisites: EDP 3013, EDU 3003, and permission of the Director of Student Teaching required. Students must inform the Director of Student Teaching of their plans to enroll in this course one semester in advance.
Field-based experiences in the secondary school.
4063 STUDENT TEACHING: KINDERGARTEN
3 hours credit. Prerequisites: EDP 3013, EDU 3003, and permission of the Director of Student Teaching required. Students must inform the Director of Student Teaching of their plans to enroll in this course one semester in advance.
Field-based experiences at the kindergarten level.
4072 INDIVIDUALIZED CLINICAL EXPERIENCES
(0-2) 2 hours credit. Prerequisites: Concurrent enrollment in EDU 4046 or EDU 4043, plus EDU 4053 or the equivalent. Permission of the Director of Student Teaching required. Students must inform the Director of Student Teaching of their plans to enroll in this course one semester in advance.
A series of simulated and direct experiences planned to develop and improve competency components which have been identified as needs of the individual students. The experiences are designed to provide opportunities for students to further investigate and apply strategies related to teaching/learning situations or to apply corrective measures to diagnosed areas of weaknesses.

4083 STUDENT TEACHING: SPECIAL EDUCATION
40863 or 6 hours credit. Prerequisites: EDP 3013 and EDU 3003. Permission of the Director of Student Teaching required. Students must inform the Director of Student Teaching of their plans to enroll in this course one semester in advance.
Field-based experiences in a special education classroom.
4093 CLASSROOM CLIMATE IN THE SECONDARY SCHOOL (3-0) 3 hours credit. Prerequisites: EDP 3013, EDU 3003, concurrent enrollment in EDU 4053-6 and EDU 4072, and permission
of the Director of Student Teaching required. Students must inform the Director of Student Teaching of their plans to enroll in this course one semester in advance.
The study of and practice in identifying and developing curricular materials, planning for instruction, developing effective secondary classroom climate, and evaluating instructional outcomes, particularly in the context of the Southwestern United States; the methodology of instruction as related to specific disciplines. (This course is offered in multiple sections according to the subject matter to be taught.)
SPECIAL STUDIES IN EDUCATION
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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 EDUCATIONAL PSYCHOLOGY (EDP) 

## 3013 GROWTH, DEVELOPMENT AND LEARNING THEORIES I

 (3-0) 3 hours credit. Prerequisite: EDU 2001 or consent of instructor.A study of developmental psychology: human motivation and behavior, the relationships between development and learning, and the special nature of "exceptional" children and youth as learners.

## 3603 INTRODUCTION TO EXCEPTIONALITY

(3-0) 3 hours credit.
A study of the nature and characteristics of exceptional children; educational and therapeutic services for exceptional children at the local, state, national and international level, as well as a study of demographics, etiology, and efficiency of delivery systems of services for exceptional children.
3623 ASSESSMENT OF EXCEPTIONAL CHILDREN
(3-0) 3 hours credit. Prerequisite: EDP 3603 or consent of instructor.
An introduction to both formal and informal assesment procedures. Students are trained to administer and evaluate the results of informal assessment devices in the areas of life skills, motor development, perception, language and academic subject areas.
3633 BEHAVIOR MANAGEMENT OF EXCEPTIONAL CHILDREN (3-0) 3 hours credit. Prerequisite: EDP 3603.
A study of behavior management strategies and techniques to alter, improve, and maintain children's academic and social behaviors. Application of learning theory principles, measurement
procedures, knowledge of divergent and convergent theories and practices regarding behavior change strategies, as well as current and significant research are emphasized.

## 3643 LANGUAGE AND COGNITIVE DEVELOPMENT AND

 DYSFUNCTION(3-0) 3 hours credit. Prerequisite: EDP 3603 or concurrent enrollment.
Current theories in the areas of language development and cognition are studied in terms of their contribution to the development of a methodology for the education of the exceptional child. Educational programs in the areas of language and cognition are evaluated in terms of their theoretical basis and educational utility.
3653 PRACTICUM IN SPECIAL EDUCATION (INTRODUCTORY) 3 hours credit. Prerequisite: Concurrent enrollment in EDP 3603 and 3643.
Observation and evaluation of educational procedures and services for exceptional children; observation and recording of the performance of children as learners.
3663 PRACTICUM IN SPECIAL EDUCATION (INTERMEDIATE) 3 hours credit. Prerequisite: Concurrent enrollment in EDP 3623 and 3633.
Working with teachers of exceptional children in developing, administering and evaluation assessment tools; planning language and learning sequences for children.
4013 GROWTH, DEVELOPMENT AND LEARNING THEORIES II (3-0) 3 hours credit. Prerequisite: EDP 3013.
An introduction to the area of study which includes analysis and theoretical basis of learning, the assessment of learner and learner needs, and the measurement of achievement.
4603 PARENTS, COMMUNITY RESOURCES AND CONTINUING EDUCATION FOR EXCEPTIONAL CHILDREN
(3-0) 3 hours credit.
A study of methods and techniques for working with parents of exceptional children and for effecting cooperative home, school, and community relations for the improvement of the child's life and environment.
4653 PRACTICUM IN SPECIAL EDUCATION (ADVANCED)
3 hours credit. Prerequisite: Enrollment in EDP 4603 and 4613.
Field work with teachers in planning and implementing educational sequences for exceptional children.
SPECIAL STUDIES IN EDUCATIONAL PSYCHOLOGY
(3-0) 3 hours credit.Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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 HEALTH AND PHYSICAL EDUCATION <br> (HPE)

## 1001 INDIVIDUAL AND DUAL PHYSICAL ACTIVITY SPORTS

(0-1.5) 1 hour credit.
Practice in the techniques of individual and dual sports, such as tennis, golf, handball, boxing, swimming, archery, badminton, wrestling, etc. Individual sections focus on particular sports as indicated in the schedule of courses. May be repeated for credit, but not more than 6 hours of HPE 1001 alone or in combination with HPE 1101 will apply to any UT San Antonio degree.
1101 TEAM SPORTS
(0-1.5) 1 hour credit.
Practice in the techniques of team sports, such as basketball, volleyball, soccer, etc. This course will focus on the actual practice and the development of team skills. Individual sections focus on particular sports as indicated in the schedule of courses. May be repeated for credit, but not more than 6 hours of HPE 1101 alone or in combination with HPE 1001 will apply to any UT San Antonio degree.
3403 THE FOUNDATIONS OF PHYSICAL EDUCATION
(3-0) 3 hours credit.
A study of the history, principles, objectives, and current concepts of physical education and recreation.
3413 THE ELEMENTARY SCHOOL PHYSICAL EDUCATION PROGRAM
(3-0) 3 hours credit.
Physical education activities in elementary schools.
3423 THE SECONDARY SCHOOL PHYSICAL EDUCATION PROGRAM
(3-0) 3 hours credit.
Physical education activities in secondary schools.
3433 INDIVIDUAL AND DUAL LIFETIME SPORTS (3-0) 3 hours credit.
Instruction in the development of skills in physical education activities with emphasis on individual and dual type sports.
3443 PRINCIPLES OF EXERCISE AND PHYSICAL FITNESS (3-0) 3 hours credit.
An analysis of the nature of physical fitness, basic principles of exercise and physical fitness, analysis of methods of developing and evaluating physical fitness, motor development and movement perception.
3503 THE FOUNDATIONS OF HEALTH EDUCATION (3-0) 3 hours credit.
A study of the history, principles, objectives, and current concepts of health education.

3513 THE ELEMENTARY SCHOOL HEALTH PROGRAM (3-0) 3 hours credit.
A study of the health problems of elementary school students as a basis for health instruction, utilizing the Texas Education Agency guidelines as a basis for planning.
3523 THE SECONDARY SCHOOL HEALTH PROGRAM (3-0) 3 hours credit.
A study of the health problems of secondary school students as a basis for health instruction, utilizing the Texas Education Agency guidelines as a basis for planning.
3533 DRUG EDUCATION
(3-0) 3 hours credit.
The use and abuse of tobacco, alcohol, and other drugs, other mood and behavior modifiers, and their effects on one's behavior. An evaluation of why people take chances when their health is involved, and strategies for teaching drug education.
3543 PHYSICAL GROWTH AND DEVELOPMENT
(3-0) 3 hours credit.
A review of physical growth and development as dynamic lifetime processes. The course emphasizes changes in early adolescence and implications for teachers.
4403 THE TEACHING OF MOTOR LEARNING AND SKILL PERFORMANCE
(3-0) 3 hours credit.
Motor learning theories, physiological bases of skill behavior, motor and skill learning and application of instructional techniques for developing motor learning and skill performance.

## 4413 COACHING AND OFFICIATING

(2-1) 3 hours credit.
A study of the content and teaching techniques involved in coaching and of the standards and techniques in game officiating.
4423 REMEDIAL PHYSICAL EDUCATION
(3-0) 3 hours credit.
Theories and techniques of muscle re-education and their application to exercise. A study of programs for students for whom physicians have prescribed remedial physical exercise; how these programs are taught and administered.
4433 GYMNASTICS
(3-0) 3 hours credit.
A study of methods for organizing a school or class for a balanced program of gymnastic activities. Evaluation methods are presented to determine a person's present level and rate of progression.
4503 PERSONAL AND FAMILY HEALTH (3-0) 3 hours credit.
An overview of medical and scientific facts and principles applied to healthful living and prevention and control of diseases.

## 4513 CONSUMER HEALTH

(3-0) 3 hours credit.
A study of the consumer's selection of health products and services, and the acquisition of basic knowledge regarding consumer health with a view towards providing students with information that will help them make wise decisions when selecting professional health care, services, and products.

## 4523 TEACHING SEX EDUCATION

(3-0) 3 hours credit.
A study of the teaching of human sexuality from conception to death. The course emphasizes ways of understanding sexual drives which can help students deal more effectively with pressures and conflicts and ways of teaching sex education.

## 4533 NUTRITION EDUCATION

(3-0) 3 hours credit.
A study of content, attitudes and practices regarding nutrition and its effects on health behavior. Methods of teaching nutrition to young people are assessed.

## 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 HEALTH AND PHYSICAL EDUCATION
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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.

## DIVISION OF ENVIRONMENTAL STUDIES

The Division of Environmental Studies does not offer an undergraduate degree. In order to prepare students in different fields for future graduate work in Environmental Management and to serve as support function for existing UT San Antonio degree programs, undergraduate courses in the Division of Environmental Studies are offered as electives.

## COURSE DESCRIPTIONS ENVIRONMENTAL MANAGEMENT (ENV)

2013 INTRODUCTION TO ENVIRONMENTAL SYSTEMS
(3-0) 3 hours credit.
Empirical and analytical studies of spatial dimensions of regional development with emphasis on social, political, economic, demographical and environmental problems at regional levels.
3013 ENVIRONMENT AND HUMAN RESOURCES MANAGEMENT
(3-0) 3 hour credit.
Human resources as related to the total environment are studied. Special emphasis is given to the areas of manpower planning and programming as related to the technological changes and the wise use of time in the community.
3023 MAN AND HIS NATURAL RESOURCES
(3-0) 3 hours credit.
A critical evaluation of man's dependency upon the major natural resources of the world such as water, air, soils, forests, grasslands, wildlife and minerals. Programs are discussed to facilitate the utilization of natural resources for optimum benefit.

3033 ELEMENTS OF URBAN SYSTEMS MANAGEMENT
(3-0) 3 hours credit.
A focus on the role of man as a modifier of the environment. The impact of urban, rural and industrial developments is specifically considered. The basic principles governing urban planning, urban development, urban systems analysis and the rural-urban transition process are covered.
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An introduction to the city as an extension of man with a review of the urban revolution and its impact on the contemporary United States. General trends in contemporary thought as they apply to the problems and future of American urban development.
4023 ENVIRONMENT, ENERGY AND SOCIETY
(3-0) 3 hours credit. Prerequisite: ENV 3023 or consent of instructor.
Study of energy requirements for various components of society and the wastage associated with modern living. Characteristics of various energy sources and conversion processes. Energy resources management considerations related to environmental quality and societal needs.
4103 THE GOVERNMENT AND ENVIRONMENTAL PROTECTION
(3-0) 3 hours credit. Prerequisite: ENV 3023 or consent of instructor.
A survey of current federal action directed at improving environmental quality. Evolution and effectiveness of the National Environmental Policy Act and its implications for the future of our society and various industries.
4203 ENVIRONMENTAL IMPACT ANALYSIS
(3-0) 3 hours credit.
A course designed to familiarize students with the content of the National Environmental Policy Act and the procedures for doing environmental impact statements. Guidelines for specific projects are considered. Students collect data for and write an environmental impact statement. Environmental impact statement review procedures are studied.

## 4503 ALTERNATIVE URBAN FUTURES

(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An examination and exploration of alternatives for the future in the urban environment considering the relationships between social, economic and human dimensions.
4513 PROBLEMS OF URBAN CHANGE
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
This course examines problems presented by growth and change in the urban environment. Students determine primary foci of interests and possibilities for field involvment.
4603 ENVIRONMENTAL QUALITY ANALYSIS AND MONITORING
(3-0) 3 hours credit. Prerequisite: ENV 3023.
The procedures and instrumentation for the analysis of air, water and soils. Environmental data acquisition and basic analysis for the interpretation and characterization of environmental quality.

4611 ENVIRONMENTAL QUALITY ANALYSIS AND MONITORING LABORATORY
(0-3) 1 hour credit.
This course must be taken concurrently with ENV 4603.
4663 THE LATIN AMERICAN CITY
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
A study of the physical structure of the Latin American city and its cultural, social and economic bases; current urban issues and environmental relationships.

## DIVISION OF SPECIAL PROGRAMS

The Division of Special Programs is responsible for preparing students majoring in the area of Criminal Justice, for administering The University's Army R.O.T.C. Program, and for administering the Library Instruction course, LIB 1001, which is part of the university-wide general education requirements.

Criminal Justice. This program is intended to increase individual knowledge and skills useful in the criminal justice area and to provide entrance into fields of specialization which can be of practical, functional value to a wide variety of law enforcement and related agencies.
Army R.O.T.C. A student enrolling at The University of Texas at San Antonio 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 Reserve Officer Training Corps (R.O.T.C.) is open to all qualified students (male and female) on a voluntary basis. The program is available under cooperative arrangements with St. Mary's University of San Antonio. All courses for those enrolled in the program are held on The University of Texas at San Antonio campus.

Library Instruction Course. The goals of the Library Instruction course are to help students become aware of the basic resources (both collection and services) available in the library, to ensure that students have a basic level of skill in library use, and to enable students to achieve a sense of confidence in using the library.

## BACHELOR OF ARTS DEGREE IN CRIMINAL JUSTICE

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, is 124 .

All candidates for the degree must complete:
A. 36 semester hours in the major, at least 24 of which must be at the upper-division level.

1. 12 semester hours of lower-division courses in the Law Enforcement core ${ }^{39}$ are required from the following: ${ }^{40}$

Introduction to Police Science (3 semester hours) Police Role in Crime and Delinquency ( 3 semester hours)
Criminal Investigation (3 semester hours)
Legal Aspects of Law Enforcement (3 semester hours) Police Organization and Administration (3 semester hours)
2. 24 semester hours of upper-division courses distributed as follows:
a. 12 semester hours of upper-division core:

CRJ 3013 Concepts and Issues in Criminal Justice
CRJ 3043 Criminal Justice: Ecology and Etiology
CRJ 3213 Criminal Justice: Administrative Organization
CRJ 3623 Substantive Criminal Law

[^61]b. 12 semester hours of upper-division courses from one of the following:

1) Law Enforcement Planning and Management

CRJ 3633 Evidentiary Issues in the Legal Process
CRJ 4413 Trends in Police Administration
CRJ 4513 Criminal Justice Planning
CRJ 4953 Special Studies in Criminal Justice
2) Corrections-Juvenile Justice

CRJ 3513 Corrections: Theory and Practice
CRJ 3533 Alternatives to Incarceration
CRJ 3543 The Juvenile Justice System
CRJ 4953 Special Studies in Criminal Justice
B. 15 semester hours of upper-division support work, to be selected upon consultation with the student's faculty advisor to include:
one undergraduate statistics course
SSC 3003 Social Science Research Methods
CRJ 4933, 4936, or 4939 Internship in Criminal Justice
C. 23 semester hours of free electives.

## COURSE DESCRIPTIONS

## CRIMINAL JUSTICE

(CRJ)
2023 POLICE-COMMUNITY RELATIONS
(3-0) 3 hours credit.
The role of the individual officer in achieving and maintaining positive public response; inter-group relations and public information.

2033 CRIMINAL PROCEDURE AND EVIDENCE
(3-0) 3 hours credit.
Introduction to the rules governing the admissibility of evidence and types of evidences; criminal procedure in various courts, review of the Texas Code of Criminal Procedure, including laws of arrest, search and seizure, and leading case laws on each topic.

3013 CONCEPTS AND ISSUES IN CRIMINAL JUSTICE (3-0) 3 hours credit.
Philosophy and history of criminal justice administration; examination of criminal justice agencies operating as an interacting system from law enforcement agencies through the courts and into correctional components.

3043 CRIMINAL JUSTICE; ECOLOGY AND ETIOLOGY (3-0) 3 hours credit.
Examination of social, political, economic, religious, and emotional characteristics of criminal justice problems; historical as well as systems perspective with a multidisciplinary approach.
3133 BASIC CRIMINALISTICS
(2-1) 3 hours credit.
The application of the knowledge of the physical and natural sciences to the administration of criminal justice. Includes probability; value and limitation of various types of physical evidence; basic processing techniques.
3163 INTRODUCTION TO SECURITY ADMINISTRATION (3-0) 3 hours credit.
Survey of the scope of the security administration field in business, industry, and government; consideration of the problems and issues affecting the relationship between publicly funded law enforcement and the private sector.
3213 CRIMINAL JUSTICE: ADMINISTRATIVE ORGANIZATION (3-0) 3 hours credit.
Functional and structural approaches to the study of Criminal Justice administration. Examination of traditional and innovative approaches in Criminal Justice organization with emphasis on the systems approach.

## 3513 CORRECTIONS: THEORY AND PRACTICE

 (3-0) 3 hours credit.Examination of the historical development of corrections; its philosophical orientation; theories and practices, including the traditional and contemporary; institutional and non-institutional aspects.

## 3533 ALTERNATIVES TO INCARCERATION

(3-0) 3 hours credit.
Problems in probation, pardons and parole are examined as to policies, procedures, and feasibility. Relationships to community service organizations are examined.
3543 THE JUVENILE JUSTICE SYSTEM (3-0) 3 hours credit.
History and development of traditional and current methods for responding to the needs of the juvenile offender. Process oriented approach to the roles of involved agencies with emphasis upon formal and informal treatment methods.

3623 SUBSTANTIVE CRIMINAL LAW
(3-0) 3 hours credit.
Jurisprudential philosophy and case study of common law and statutory crimes; includes functions and development of substantive criminal law, elements of specific offenses; defenses.
3633 EVIDENTIARY ISSUES IN THE LEGAL PROCESS (3-0) 3 hours credit.

Issues and problems of proof in civil and criminal trials, admissibility, examining witnesses, constitutional considerations, exclusionary rules.

## 4123 CONCEPTS OF INVESTIGATION

(3-0) 3 hours credit. Prerequisite: CRJ 3133.
Examination of theories and practices of the investigative process in the criminal justice system; specific operational techniques; application of innovative techniques.

4133 COMMUNITY CRIME PREVENTION PROGRAMS
(3-0) 3 hours credit. Prerequisite: lower-division core or consent of instructor.
An analysis of the typologies, philosophies, and operations of existing and projected community-based crime prevention programs. Emphasis on a variety of governmental and nongovernmental community support and action programs.

4413 TRENDS IN POLICE ADMINISTRATION
(3-0) 3 hours credit. Prerequisite: CRJ 3212 or consent of instructor.
Examination of the management of law enforcement organization in terms of administrative structure and process. Analysis of issues in program development and implementation in the provision of police service.

## 4513 CRIMINAL JUSTICE PLANNING

(3-0) 3 hours credit. Prerequisite: senior standing.
Develops knowledge and skills pertinent to the understanding and implementation of planning in the criminal justice system; examination of techniques of data and analysis; use of PERT/ CPM and VIA methods in criminal justice.

4543 JUVENILE JUSTICE LAW
(3-0) 3 hours credit. Prerequisite: CRJ 3543 or consent of instructor.
Historical and case oriented approach to the legal basis of individualized justice for children including early common law approaches, the child saving movement, the juvenile court era, and the modern challenge to the court by the constitutionalists.
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.
4933 INTERNSHIP IN CRIMINAL JUSTICE
4936 3, 6, or 9 hours credit. Prerequisites: CRJ 3013, 3043, and 3623.
4939 Supervised experience in an administrative setting which provides the opportunity to integrate theory and practice in criminal justice agencies.

4953 SPECIAL STUDIES IN CRIMINAL JUSTICE
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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.

## ARMY RESERVE OFFICER TRAINING CORPS PROGRAM

To obtain a commission ${ }^{41}$ as an officer in The U.S. Army, a baccalaureate degree in one of the disciplines offered by The University of Texas at San Antonio and 18 semester hours of military science courses are required. Credit for military science courses may be applied toward a baccalaureate degree only as free electives. With respect to the free electives specified in the degree requirements for each major, there is a maximum number of hours of military science that may be applied to the free electives allowed.

The maximum number of semester hours of military science which may be counted as free elective credit for the various degrees available at The University of Texas at San Antonio are set forth below. Credit for military science courses, when awarded by another accredited college or university, are accepted by The University of Texas at San Antonio as free elective credit within the same limitations as military science credit earned at The University.

Degree Program

## Maximum Hours Applicable as Free Electives ${ }^{42}$

Accounting ..... 9
Anthropology ..... 9
Applied Science ..... 9
Art and Design ..... 0
Biology ..... 9
Chemistry ..... 8
Criminal Justice ..... 9
Early Childhood and Elementary Education ..... 0
Economics (BA) ..... 9
Economics (BBA) ..... 9

[^62]English ..... 9
Finance ..... 9
French ..... 9
Geography ..... 9
German ..... 9
Health and Physical Education ..... 0
History ..... 9
Humanities ..... 9
Management ..... 9
Mathematics, Computer Science and Systems Design ..... 9
Medical Technology ..... 0
Music ..... 0
Occupational Therapy ..... 0
Physical Therapy ..... 0
Political Science ..... 9
Psychology ..... 9
Sociology ..... 9
Spanish ..... 9

The 18 semester hours of military science courses which constitute the Army ROTC program at The University of Texas at San Antonio are offered in two parts: a Basic Course, consisting of 6 semester hours of course work, taken in the first two years at The University and an Advanced Course, consisting of 12 semester hours of course work taken in the last two years at The University.

The program requirements for the Basic Course are as follows:

## First Year

| Fall Semester <br> MSC 1011 |  | Spring Semester <br>  <br>  <br>  <br>  <br> Fall Semester |
| :---: | :---: | :---: |
| Second Year |  |  |
| MSC 2012 |  | Spring Semester |

Students may enroll in the Basic Course without obligation to take additional ROTC training. Students enrolled in the Basic Course are furnished, free of charge, complete uniforms, texts, and necessary equipment.

The program requirements for the Advanced Course are as follows:

First Year<br>Fall Semester<br>MSC 3013<br>Spring Semester<br>MSC 3023

Second Year
Fall Semester
MSC 4013

## Spring Semester

MSC 4023

Students enrolled in the Advanced Course receive $\$ 100$ per month, and texts, uniforms, and equipment are provided. Upon entering the Advanced Course, a student is required to sign a contract which obligates him or her to complete the ROTC program and serve a tour of active duty as a commissioned officer in The United States Army.

Participation in a leadership laboratory is required in connection with all courses, except MSC 4042: ROTC Flight Training. The leadership laboratory consists of a varied program of enrichment and development for future army officers consisting of an active guest speaker program, participation in civic action projects, tours of military and related installations, field training exercises, and a limited amount of drill and physical conditioning.
Between their junior and senior years, students are required to attend a six-week summer camp.

Students in their second year of the Advanced Course are eligible to participate in the Army ROTC Flight Training Program on a voluntary and selective basis. This training consists of ground school, as well as dual and solo flight instruction. Upon successful completion of this training, a student may qualify for a Federal Aviation Administration Private Pilot's Certificate. Students enrolling in ROTC flight training
must agree to serve at least three years on active duty with the Army following graduation from Army Flight School.

The ROTC program offers scholarships for up to three years to selected students. These scholarships provide for tuition, fees, and subsistence of $\$ 100$ per month.

## COURSE DESCRIPTIONS

MILITARY SCIENCE
(MSC)
1011 FUNDAMENTALS OF LEADERSHIP AND MANAGEMENT I (1-2) 1 hour credit.
Organization of the Army and ROTC. Career opportunities for ROTC 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.Operation of basic military team with emphasis on organization and equipment. Military geography and use of maps and aerial photography with introduction to orienteering. Functions and responsibilities of the junior leader.

## 2022 <br> APPLIED LEADERSHIP AND MANAGEMENT II

 (2-2) 2 hours credit.American military history to include the development of American military institutions, policies, experiences, and traditions in peace and war from colonial times to the present. Emphasis will be on the relationship between the military and other facets of American society and the role of the military in the establishment, expansion, preservation and development of the nation. Functions and responsibilities of the junior leader.
3013 ADVANCED LEADERSHIP AND MANAGEMENT I
(3-2) 3 hours credit. Prerequisites: MSC 1011, 1021, 2012 and 2022, or by consent of instructor.
Case studies in leadership and management. Development of the student's ability to express himself clearly and accurately with emphasis on the analysis of military problems, and preparation and delivery of logical solutions.
3023 ADVANCED LEADERSHIP AND MANAGEMENT II (3-2) 3 hours credit. Prerequisite: MSC 3013.

Analysis of the leader's role in directing and coordinating efforts of individuals and small units in the execution of offensive and defensive tactical missions. Case studies of leadership and management.
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.

## 4042 ROTC FLIGHT TRAINING

(3-3) 2 hours credit. Prerequisite: Senior standing, enrollment in MSC 4013 and physical qualification. ( $36^{1 / 2}$ hours of flight training; 35 hours of ground school.)
Pre-solo, solo and cross-country flight instruction plus ground instruction in theory of flight, Federal Air Regulations, meteorology, navigation, and radio procedure. Student eligible for private pilot's license at completion of training.

## COURSE DESCRIPTION

## LIBRARY INSTRUCTION (LIB)

## 1001 LIBRARY INSTRUCTION

1 hour credit.
A self-paced orientation to the nature and location of library materials and services at The University of Texas at San Antonio. Instruction and experience in using The University card catalogs, microform and other audio-visual equipment and indexes. Instruction and practice in library search strategy and compilation of a bibliography.

## College of Sciences and Mathematics

The College of Sciences and Mathematics is organized into three Divisions: 1) Allied Health and Life Sciences, 2) Earth and Physical Sciences, and 3) Mathematics, Computer Science, and Systems Design. These Divisions encompass the subject matter of traditional science departments. Degree programs are offered in Biology; Medical Technology; Occupational Therapy; Physical Therapy; Applied Science; Chemistry, and Mathematics, Computer science. and Sistems Design, which provide education in the theoretic ai foundations of each discipline while stressing appied aspects. This reflects the creative tension which has aluays existed betueen inwardly directed and applied science. It also attempts to speak to the needs of the cummunity in uhich The liniversity is located Having a strong technical and career thrust, the College prepares students as mathematics and science teachers, medical laboratory technicians. industrial chemists and physicusts, geologists, biostatisticians, and computer scientists. It also offers preprofessiomal courses of study for students preparing for careers in medicine, dentistry, and nursing.

The College of Sciences and Mathematics also offers a unique neu program under uhich students intending to major in the sciences can complete most of the requirements for their major in the freshman and sophomore years. The general education requirernents can be met in the later semesters. For special advantages of this RULE (Restructuring Undergraduate Learning Experience) program, direct your inquiries to the office of the Dean of the College of Sciences and Mathematics.

## DIVISION OF ALLIED HEALTH AND LIFE SCIENCES

The Division offers numerous degree options so that a highly individualized program may be developed around the interests of the student. The Biology major proceeds from a comprehensive core curriculum and related offerings in chemistry, physics and mathematics into more highly specialized areas of the life sciences, such as physiology, genetics, microbiology, biochemistry, environmental biology and molecular biology. A major in Biology prepares the student for laboratory positions in industry and government and fulfills requirements for entrance into graduate school, medical school, dental school, and schools of allied health.

## ALLIED HEALTH PROGRAMS

A very wide variety of careers exist today in the allied health field ranging from those calling for direct contact with the patient in rehabilitation and therapy programs to the performance of detailed analytical techniques in the clinical laboratory. All hold the satisfaction of contributing to the well-being of others. Because of the diversity of careers in this area, a wide spectrum of skills and talent can be accommodated, necessitating careful planning and counseling to insure that each student selects the program best suited to individual needs.

The University has programs of training in the Allied Health area carried out in cooperation with area health institutions and The University of Texas Health Science Center.

## PREPROFESSIONAL COURSES OF STUDY IN THE HEALTH FIELDS

The University of Texas at San Antonio does not offer specific premedical, predental, or prenursing degree programs; rather preprofessional courses of study are available to prepare students for admission to medical, dental, and nursing school. ${ }^{3}$

[^63]Additional information can be obtained from the Office of the Division of Allied Health and Life Sciences and through the Chairman of the Health Related Professions Advisory Committee of The University of Texas at San Antonio.

## General Education Courses

The following courses are designed especially to satisfy The University's General Education Requirements:

BIO 1012, 1021 Life and Living Systems and Laboratory
BIO 1033, 1041 Human Biology: Anatomy and Physiology and Laboratory
BIO 1052, 1061 Introductory Microbiology and Laboratory
BIO 2003 Human Reproduction, Fertility, and Demography
BIO 2023 Drugs and Society
BIO 2043 Nutrition
BIO 2053 Man and His Environment
BIO 3242, 3251 Field Biology and Ecology and Laboratory
BIO 4073 Law, Ethics and the Life Sciences
BIO 4083 Heredity, Evolution, Race and Society
The following sequence is recommended for students who are undecided about a major in Life Sciences:

BIO 1103, 1111 Principles of Biology and Laboratory
BIO 1213 Principles of Environmental Biology
BIO 2313 Genetics
If a major is later declared, all of these courses apply to the major and the student then elects the two laboratories (BIO 1221 and BIO 2321) that accompany Principles of Environmental Biology (BIO 1213) and Genetics (BIO 2313). Other courses in the Life Science curriculum also may be used to satisfy General Education Requirements, provided the student has the required prerequisites.

## BACHELOR OF SCIENCE DEGREE IN BIOLOGY

The minimum number of semester hours required for the Bachelor of Science Degree in Biology, including the 50 hours of General Education Requirements, is $126 .{ }^{4}$
All candidates for the degree must complete:
A. 40 semester hours in the major, 20 of which must be at the upper-division level.

1. 20 semester hours in the Biology Core Curriculum are required:

BIO 1103, 1111 Principles of Biology and Laboratory
BIO 1213, 1221 Principles of Environmental Biology and Laboratory
BIO 2313, 2321 Genetics and Laboratory
BIO 3413, 3421 General Physiology and Laboratory BIO 3513, 3521 Biochemistry and Laboratory
2. 20 additional semester hours of Biology electives are required, 12 of which must be at the upper-division level in consultation with the student's Advisor. The Biology electives may be selected from any of the Biology courses, except those for non-majors.
B. 26 semester hours of support work.

1. 15 semester hours are required in Chemistry:

CHE 1103, 1122 Introductory Chemistry and Laboratory Workshop
CHE 2003 Chemical Principles
CHE 2012 Inorganic Qualitative and Quantitative Analysis
CHE 2203 Organic Chemistry I
CHE 2212 Organic Qualitative Analysis
2. 3 semester hours (in addition to the 4 semester hours required under the General Education Requirements) are required in Mathematics:
MAT 2013 Statistical Methods in Life and Social Sciences I or
MAT 1213 Calculus I

[^64]3. 8 semester hours are required in Physics:<br>PHY 1803, 1811 Physics for Life Science I and Laboratory<br>PHY 1823, 1831 Physics for Life Science II and Laboratory<br>C. 10 semester hours of free electives.

## PROGRAMS IN MEDICAL TECHNOLOGY

The medical technologist performs or supervises the performance of latoratory tests which aid physicians in diagnosing diseases and in evaluating the effectiveness of treatment of diseases. These tests are performed in the fields of hematology, chemistry, urinalysis, blood coagulation, immunohematology and blood banking, immunology and serology, and microbiology. Medical technologists work in or direct laboratories in hospitals and clinics, medical schools, governmental health departments, pharmaceutical companies or research institutions. The medical technologist may develop new techniques for the laboratory, contribute toward research, become a laboratory manager, or teach students to become members of the profession.
There are two programs of medical technology at The University of Texas at San Antonio leading to a Bachelor of Science Degree in Medical Technology. One program consists of three years of academic work and twelve months of clinical laboratory training in a hospital school of medical technology approved by the Council of Education of the American Medical Association. The second program is a four-year integrated program in which clinical training is introduced at the beginning of the program and in which there is a concentrated clinical experience in the last half of the fourth year. The integrated program is offered in cooperation with area health institutions.
The academic requirements of these programs are designed not only to give a theoretical basis for laboratory procedures, but also to provide a strong basic science foundation so that medical technologists who later may wish to attend graduate school are qualified academically to do so. The hospital and simulated
student laboratory training provides specialized application of this knowledge and orientation to the clinical laboratories and patient contact environment. The curricula are subject to review by the Council on Medical Education of the American Medical Association through the National Accrediting Agency for the Clinical Laboratory Sciences. Graduates may obtain certification by passing the examination of the Board of Registry of the American Society of Clinical Pathologists.

Because of limited clinical facilities, students wishing to enroll in the Integrated Program should apply for admission to the program upon completion of their first year of university work. Application should be made at the Office of the Division of Allied Health and Life Sciences.

## BACHELOR OF SCIENCE DEGREE IN MEDICAL TECHNOLOGY

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, is 141.

Under the program that is offered in three years of academic work followed by one year of clinical training, all candidates for the degree must complete:
A. 63 semester hours in the major.

1. 31 semester hours in the biological sciences:

BIO 1103, 1111 Principles of Biology and Laboratory BIO 2313 Genetics
BIO 3463, 3471 Human Physiology and Laboratory
BIO 3513, 3521 Biochemistry and Laboratory
BIO 3713, 3721 Microbiology and Laboratory
BIO 4743, 4751 Immunology and Laboratory
BIO 4763, 4771 Parasitology and Laboratory
BIO 4782, 4792 Pathogenic Microorganisms and Laboratory
2. 32 semester hours (or their equivalents) in the one-year hospital training:
BIO 2412, 2422 Hematology and Laboratory
BIO 2533, 2542 Parasitology and Urinalysis and Laboratory
BIO 3773, 3782 Clinical Chemistry and Laboratory
BIO 3862, 3872 Immunohematology and Serology and Laboratory
BIO 4843 Advanced Clinical Microbiology
BIO 4854 Advanced Clinical Chemistry
BIO 4863 Advanced Clinical Hematology
BIO 4884 Advanced Immunohematology and Serology
B. 28 semester hours of support work.

1. 15 semester hours are required in Chemistry:

CHE 1103, 1122 Introductory Chemistry and Laboratory Workshop
CHE 2003 Chemical Principles
CHE 2012 Inorganic Qualitative and Quantitative Analysis
CHE 2203 Organic Chemistry I
CHE 2212 Organic Qualitative Analysis
2. 5 semester hours (in addition to the four semester hours required under the General Education Requirements) are required in Mathematics:

MAT $1062 \quad$ Statistics
MAT 1213 Calculus I
3. 8 semester hours are required in Physics:

PHY 1803, 1811 Physics for Life Sciences I and Laboratory
PHY 1823, 1831 Physics for Life Sciences II and Laboratory

Under the integrated program, all candidates for the degree must complete:
A. 63 semester hours in the major.

1. 31 semester hours are required in the biological sciences:
BIO 1103, 1111 Principles of Biology and Laboratory BIO 2313 Genetics
BIO 3463, 3471 Human Physiology and Laboratory
BIO 3513, 3521 Biochemistry and Laboratory
BIO 3713, 3721 Microbiology and Laboratory
BIO 4743, 4751 Immunology and Laboratory
BIO 4763, 4771 Parasitology and Laboratory
BIO 4782, 4792 Pathogenic Microorganisms and Laboratory
2. 18 semester hours are required in Medical Technology courses:

BIO 1871
Allied Health Sciences
BIO 1883
Medical Technology
BIO 2412, 2422 Hematology and Laboratory
BIO 2533, 2542 Parasitology and Urinalysis and Laboratory
BIO 3773, 3782 Clinical Chemistry and Laboratory
3. 14 semester hours are required in hospital training courses:

BIO 4843 Advanced Clinical Microbiology
BIO 4854 Advanced Clinical Chemistry
BIO 4863 Advanced Clinical Hematology
BIO 4884 Advanced Immunohematology and Serology
B. 28 semester hours of support work.

1. 15 semester hours are required in Chemistry:

CHE 1103, 1122 Introductory Chemistry and Laboratory Workshop
CHE 2003 Chemical Principles
CHE 2012 Inorganic Qualitative and Quantitative Analysis

CHE 2203 Organic Chemistry I
CHE 2212 Organic Qualitative Analysis
2. 5 semester hours (in addition to the 4 semester hours required under the General Education Requirements) are required in Mathematics:

MAT 1062 Statistics
MAT $1213 \quad$ Calculus I
3. 8 semester hours are required in Physics:

PHY 1803, 1811 Physics for Life Sciences I and Laboratory
PHY 1823, 1831 Physics for Life Sciences II and Laboratory

## PROGRAM IN OCCUPATIONAL THERAPY

Occupational therapy is the art and science of directing man's participation in selected tasks to restore, reinforce and enhance performance, facilitate learning of those skills and functions essential for adaptation and productivity, diminish or correct pathology and to promote and maintain health. Its fundamental concern is the development and maintenance of the capacity, throughout the life span, to perform with satisfaction to self and others those tasks and roles essential to productive living and to the mastery of self and the environment. Many different activities and life-tasks, such as daily living skills, creative arts and manual arts, are used to help patients of all ages overcome physical, emotional and other developmental problems. The therapist may work in hospitals and clinics, rehabilitation centers, extended care facilities, workshops, camps, schools, private homes and community agencies.

The degree program is designed to provide each student with educational opportunity for development as a professionally competent entry-level occupational therapist. A strong background is provided in the life sciences, behavioral sciences, humanities and specific 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 field work experience.

Students should apply for admission to the program prior to completion of their second year of university work. Application should be made at the Office of the Division of Allied Health and Life Sciences.

The curriculum is subject to review by the Council on Medical Education of the American Medical Association in collaboration with the American Occupational Therapy Association. The student is awarded a B.S. degree in Occupational Therapy upon completion of the program and is eligible to take the national examination for registration with the American Occupational Therapy Association.

## BACHELOR OF SCIENCE DEGREE IN OCCUPATIONAL THERAPY ${ }^{45}$

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, is $144 .{ }^{46}$

All candidates for the degree must complete:
A. 72 semester hours in the major, 58 of which must be at the upper-division level.

1. 22 semester hours are required in the biological sciences:

BIO 1103, 1111 Principles of Biology and Laboratory
BIO 2313, 2321 Genetics and Laboratory or
BIO 1213, 1221 Principles of Environmental Biology and Laboratory

BIO 3163, 3173 Human Anatomy and Laboratory
BIO 3463, 3471 Human Physiology and Laboratory
BIO 4463, 4471 Human Neurosciences and Laboratory
2. 50 semester hours are required in Occupational Therapy courses:

BIO 1871 Allied Health Sciences
BIO 1863 Survey of Physical Medicine and Rehabilitation
BIO 2862 Occupational Therapy Process
BIO 3752, 3761 Dynamics of Motion I and Laboratory
BIO 3793 Occupational Therapy Theory
BIO 3851 Directed Observation in Occupational Therapy (repeated for credit to total 2 hours)
BIO 3902, 3911 Occupational Therapy: Therapeutic Skills and Laboratory
BIO 4202, 4211 Dynamics of Motion II and Laboratory BIO 4802, 4811 Occupational Therapy Theory and Treatment Planning and Laboratory

[^65]BIO 4823 Occupational Therapy: Management and Consultation
BIO 4836 Clinical Medicine
BIO 4923 Special Project
BIO 4943 Field Work Experience (repeated for credit to total 15 hours)
B. 22 semester hours of support work.

1. 9 semester hours are required in Chemistry:

CHE 1103, 1122 Introductory Chemistry and Laboratory Workshop
CHE 2103, 2111 Elementary Organic and Biochemistry and Laboratory
2. 9 semester hours are required in Psychology:

PSY 2013 Fundamentals of Psychology
PSY 2503 Developmental Psychology
PSY 2513 Abnormal Psychology
3. 4 semester hours are required in Art:

ART 1192 The Manual Arts in Occupational Therapy I
ART 1202 The Manual Arts in Occupational Therapy II

## PROGRAM IN PHYSICAL THERAPY

The physical therapist is a member of the health team who is concerned with restoration of function and the prevention of disability following disease, injury, or loss of a bodily part. The emphasis is to train or retrain the patient to perform activities associated with daily living and to overcome emotional barriers to recovery. Physical therapists work in hospitals, rehabilitation facilities, private offices, long-term care facilities, nursing homes and schools. The degree program emphasizes the biological and physical sciences essential for understanding the functioning of the human body, as well as the humanities, social sciences, behavioral sciences and skill areas. Preclinical and clinical experience is taken in the last two years of a student's program.

Students should apply for admission to the program prior to
completion of their second year of university work. Application should be made at the Office of the Division of Allied Health and Life Sciences.

The curriculum is subject to review by the Council on Medical Education of the American Medical Association in collaboration with the American Physical Therapy Association. The student is awarded a B.S. degree in Physical Therapy upon completion of the program and is eligible to take the state licensure examination.

## BACHELOR OF SCIENCE DEGREE IN PHYSICAL THERAPY ${ }^{47}$

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, ${ }^{48}$ is 136.

All candidates for the degree must complete:
A. 61 semester hours in the major, 42 of which must be at the upper-division level.

1. 22 semester hours are required in the biological sciences:

BIO 1103, 1111 Principles of Biology and Laboratory
BIO 2313, 2321 Genetics and Laboratory
BIO 2123, 2131 Comparative Anatomy and Vertebrates and Laboratory
BIO 3163, 3173 Human Anatomy and Laboratory
BIO 4463, 4471 Human Neurosciences and Laboratory
2. 39 semester hours are required in Physical Therapy courses:

BIO 1871 Allied Health Sciences
BIO 1863 Survey of Physical Medicine and Rehabilitation
BIO 2751 Physical Therapy: History and Philosophy
BIO 2762 Physical Therapy Procedures
BIO 3752, 3761 Dynamics of Motion I and Laboratory
BIO 3883, 3893 Therapeutic Concepts and Procedures in Physical Therapy and Laboratory
BIO 4202, 4211 Dynamics of Motion II and Laboratory
BIO 4222, 4231 Advanced Concepts and Procedures in Physical Therapy and Laboratory
BIO 4836 Clinical Medicine

[^66]BIO 4871 Preclinical Training (repeated for credit to total 2 hours)
BIO 4923 Special Project
BIO 4933 Clinical Education (repeated for credit to total 6 hours)
B. 25 semester hours of support work.

1. 14 semester hours are required in Chemistry:

CHE 1103, 1122 Introductory Chemistry and Laboratory Workshop
CHE 2003 Chemical Principles
CHE 2012 Inorganic Qualitative and Quantitative Analysis
CHE 2103, 2111 Elementary Organic and Biochemistry and Laboratory
2. 8 semester hours are required in Physics:

PHY 1803, 1811 Physics for Life Sciences I and Laboratory
PHY 1823, 1831 Physics for Life Sciences II and Laboratory
3. 3 semester hours in Sociology and Psychology selected with the approval of the student's Advisor.

## COURSE DESCRIPTIONS

BIOLOGY
(BIO)
1012 LIFE AND LIVING SYSTEMS
(2-0) 2 hours credit. May not be applied to a major in this Division. An introduction to the life sciences emphasizing general principles, diversity of life forms, reproduction and interrelationships between living things.

1021 LIFE AND LIVING SYSTEMS LABORATORY
(0-3) 1 hour credit. May not be applied to a major in this Division. Must be taken concurrently with BIO 1012. Laboratory exercises, films and demonstrations in biology.
1033 HUMAN BIOLOGY: ANATOMY AND PHYSIOLOGY
(3-0) 3 hours credit. Prerequisite: BIO 1012, or 1103 or consent of instructor. May not be applied to a major in this Division. The structure of human muscular, skeletal, nervous and organ systems as related to function.

1041 ANATOMY AND PHYSIOLOGY LABORATORY
(0-3) 1 hour credit. May not be applied to a major in this Division. Must be taken concurrently with BIO 1033.
1052 INTRODUCTORY MICROBIOLOGY
(2-0) 2 hours credit. Prerequisite: BIO 1012, or 1103 or consent of instructor. May not be applied to a major in this Division. A general study of microorganisms, their characteristics, isolation, growth, and importance in nature, industry, public health and human disease.
1061 INTRODUCTORY MICROBIOLOGY LABORATORY
(0-3) 1 hour credit. May not be applied to a major in this Division. Must be taken concurrently with BIO 1052.
1103 PRINCIPLES OF BIOLOGY
(3-0) 3 hours credit.
An introduction to living organisms emphasizing fundamentals of organization, reproduction, growth and interrelationships between various forms of life.
1111 PRINCIPLES OF BIOLOGY LABORATORY (0-3) 1 hour credit.
Must be taken concurrently with BIO 1103.
1213 PRINCIPLES OF ENVIRONMENTAL BIOLOGY (3-0) 3 hours credit. Prerequisites: BIO 1103, and BIO 1111.
The interaction of organisms with their environment, ecological principles, adaptations of organisms, ecology, environmental pollution and principles of conservation.
1221 PRINCIPLES OF ENVIRONMENTAL BIOLOGY LABORATORY
(0-3) 1 hour credit.
Biology majors must take this concurrently with BIO 1213; optional for non-majors.
1863 SURVEY OF PHYSICAL MEDICINE AND REHABILITATION (3-0) 3 hours credit. Prerequisite: BIO 1871.
The role of each therapeutic discipline working within the process of rehabilitation. Topics include medical terminology, ethics, and effects of illness on the patient.
1871 ALLIED HEALTH SCIENCES
(1-0) 1 hour credit.
Nature of the various allied health science programs and their interrelation. On-site hospital visits to the various programs.
1883 INTRODUCTION TO MEDICAL TECHNOLOGY
(3-0) 3 hours credit. Prerequisite: BIO 1871.
Clinical laboratory safety, specimen collection and preservation, quality controls, medical laboratory calculations, reagent preparation and medical technical terminology.
2003 HUMAN REPRODUCTION, FERTILITY, AND DEMOGRAPHY
(3-0) 3 hours credit. Prerequisites: BIO 1012 or 1103 or consent
of instructor. May not be applied to a major in this Division. Human reproductive anatomy and physiology, fertility control, reproductive disease, and parameters influencing fertility patterns.
2023 DRUGS AND SOCIETY
(3-0) 3 hours credit. Prerequisites: BIO 1012 or 1103 or consent of instructor. May not be applied to a major in this Division. An examination of drugs and their role in society.
2043 NUTRITION
(3-0) 3 hours credit. Prerequisites: BIO 1033, 1041, or BIO 1103, 1111.

An examination of human nutritional needs from infancy to adulthood.

## 2053 MAN AND HIS ENVIRONMENT

(3-0) 3 hours credit. Prerequisite: BIO 1012, or 1103 or consent of instructor. May not be applied to a major in this Division. The interaction of man with the eco-system and its consequences.

## 2063 INVERTEBRATE BIOLOGY

(3-0) 3 hours credit. Prerequisites: BIO 1103, 1111.
A comprehensive treatment of the invertebrate animals with emphasis on their taxonomy, morphology, ecology, and evolution.

## 2071 INVERTEBRATE BIOLOGY LABORATORY

(0-3) 1 hour credit. Must be taken concurrently with BIO 2063.
2123 COMPARATIVE ANATOMY OF VERTEBRATES
(3-0) 3 hours credit. Prerequisites: BIO 1103, 1111.
A detailed study of anatomical differences and similarities of vertebrates with reference to evolutionary changes.
2131 COMPARATIVE ANATOMY OF VERTEBRATES LABORATORY
(0-3) 1 hour credit.
Must be taken concurrently with BIO 2123.
2162 HISTOLOGY AND CYTOLOGY
(2-0) 2 hours credit. Prerequisites: BIO 1103, 1111.
The cytological and histological aspects of cellular organization.
2172 HISTOLOGICAL AND CYTOLOGICAL LABORATORY (0-6) 2 hours credit.
Must be taken concurrently with BIO 2162.
2313 GENETICS
(3-0) 3 hours credit. Prerequisites: BIO 1103, 1111, CHE 1103, 2003, and one year of college algebra.
Principles governing transmission of hereditary factors in plants and animals with emphasis on molecular, biochemical and population genetics.
2321 GENETICS LABORATORY
(0-3) 1 hour credit.
Must be taken concurrently or following BIO 2313. Optional for non-majors.

## 2343 INTRODUCTION TO PLANT SCIENCES

(3-0) 3 hours credit. Prerequisites: BIO 1103, 1111.
The life histories and phylogenetic relationships of vascular and non-vascular plants. Emphasis on form, structure, function and development of higher plants.
2351 INTRODUCTION TO PLANT SCIENCES LABORATORY (0-3) 1 hour credit.
Must be taken concurrently with BIO 2343.
2412 HEMATOLOGY
(2-0) 2 hours credit. Prerequisite: BIO 1883 or consent of instructor.
Normal and abnormal blood pictures and cell maturations with related clinical analyses, hemoglobinopathies, bone marrows, blood coagulation and all factors.
2422 HEMATOLOGY LABORATORY
(0-6) 2 hours credit.
Must be taken concurrently with BIO 2412.
Clinical hematological laboratory.
2533 PARASITOLOGY AND URINALYSIS
(3-0) 3 hours credit. Prerequisite: BIO 1883.
Study of human parasitology, urinalysis with correlation to physiological condition.
2542 PARASITOLOGY AND URINALYSIS LABORATORY (0-6) 2 hours credit.
Must be taken concurrently with BIO 2533.
Clinical human parasitology and urinalysis.
2751 PHYSICAL THERAPY: HISTORY AND PHILOSOPHY
(1-0) 1 hour credit.
The history and philosophy of Physical Therapy. Includes presentations on various aspects of the profession.
2762 PHYSICAL THERAPY PROCEDURES
(2-0) 2 hours credit. Prerequisite: Consent of the instructor.
Fundamental concepts for basic patient care and management.
2862 OCCUPATIONAL THERAPY PROCESS
(2-0) 2 hours credit. Prerequisite: Consent of the instructor.
Principles and theories of occupational therapy; professional role and function, history, organization and concepts.
3012 INTRODUCTORY PATHOLOGY
(2-0) 2 hours credit. Prerequisites: BIO 1103, 1111 or BIO 1033, 1041.
Concepts of disease and diagnosis of pathological conditions.
3021 INTRODUCTORY PATHOLOGY LABORATORY
(0-2) 1 hour credit.
Must be taken concurrently with BIO 3012. Optional for nonmajors.

## 3113 KINESIOLOGY

(3-0) 3 hours credit. Prerequisite: BIO 1033 or BIO 2123.
A study of the principles of human motion.
3143 COMPARATIVE VERTEBRATE EMBRYOLOGY
(3-0) 3 hours credit. Prerequisites: BIO 3413, 3421.
Sequential analysis of development in vertebrates and the factors which effect fertilization organogenesis and implantation.
3151 COMPARATIVE VERTEBRATE EMBRYOLOGY LABORATORY
(0-3) 1 hour credit.
Must be taken concurrently with BIO 3143.
3163 HUMAN ANATOMY
(3-0) 3 hours credit. Prerequisite: BIO 2123 and consent of instructor.
Lectures and demonstrations on the structure of the human body.
3173 HUMAN ANATOMY LABORATORY
(0-9) 3 hours credit.
Must be taken concurrently with BIO 3163 . Includes prosections, demonstrations and dissections of human material.
3213 ANIMAL ECOLOGY
(3-0) 3 hours credit. Prerequisites: BIO 1213, 1221.
A detailed study of populations, interrelationships, behavior patterns and physiological responses of animals to their environment.

3221 ANIMAL ECOLOGY LABORATORY
(0-3) 1 hour credit.
Must be taken concurrently with BIO 3213.
3233 RURAL AND MUNICIPAL SANITATION
(3-0) 3 hours credit. Prerequisites: BIO 1213, CHE 1203 and upperdivision standing.
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.

## 3242 FIELD BIOLOGY AND ECOLOGY

(2-0) 2 hours credit. Prerequisite: BIO 1103, 1111 or consent of instructor.
A study of plants and animals in their natural environment; field trips, collection and analysis of field data are included.
3251 FIELD BIOLOGY LABORATORY
(0-3) 1 hour credit.
Must be taken concurrently with BIO 3242.
3323 EVOLUTION
(3-0) 3 hours credit. Prerequisite: BIO 2313.
A discussion of theories and possibly mechanisms for evolutionary changes at various levels of organization.

## 3413 GENERAL PHYSIOLOGY

(3-0) 3 hours credit. Prerequisites: BIO 1103, 1111, CHE 2203, 2212.

Fundamental properties and processes in living systems.

## 3421 GENERAL PHYSIOLOGY LABORATORY

(0-3) 1 hour credit.
Must be taken concurrently with BIO 3413.
3463 HUMAN PHYSIOLOGY
(3-0) 3 hours credit. Prerequisites: BIO 1103, 1111, CHE 2103 or 2203.

Physiological processes in human systems.
3471 HUMAN PHYSIOLOGY LABORATORY
(0-3) 1 hour credit.
Must be taken concurrently with BIO 3463.
3513 BIOCHEMISTRY
(3-0) 3 hours credit. Prerequisites: CHE 2203, 2212.
Introduction to biochemistry: amino acids; protein structures; enzyme action; lipids and saccharides; metabolism; nucleic acids and molecular biology.
3521 BIOCHEMISTRY LABORATORY
(0-3) 1 hour credit.
Must be taken concurrently or following BIO 3513.
Basic biochemical laboratory techniques: titration, protein purification, enzyme kinetics, chromatography, electrophoresis, centrifugation.
3533 RADIATION BIOLOGY
(3-0) 3 hours credit. Prerequisites: BIO 3513, 3521.
Interactions of ionizing ultraviolet and visible radiations with matter; biological effects; cellular repair of radiation damage; biological photo-receptors.
3541 RADIATION BIOLOGY LABORATORY
(0-3) 1 hour credit.
Must be taken concurrently with BIO 3533.
3633 PLANT ANATOMY
(3-0) 3 hours credit. Prerequisites: BIO 2343, 2351.
A comprehensive treatment of the development, function and evolutionary significance of the internal structure of plants.
3641 PLANT ANATOMY LABORATORY
(0-3) 1 hour credit.
Must be taken concurrently with BIO 3633.
3713 MICROBIOLOGY
(3-0) 3 hours credit. Prerequisites: BIO 3513, 3521 or concurrent registration.
A comprehensive study of microorganisms including their composition, morphology, growth, metabolism, classification, ecology and significance in disease.

3721 MICROBIOLOGY LABORATORY
(0-3) 1 hour credit.
Must be taken concurrently with BIO 3713.
3732 INDUSTRIAL MICROBIOLOGY
(2-0) 2 hours credit. Prerequisites: BIO $3713,3721$.
A study of fermentations of industrial importance, food processing, and quality control.
3741 INDUSTRIAL MICROBIOLOGY LABORATORY
(0-3) 1 hour credit.
Must be taken concurrently with BIO 3732.
3752 DYNAMICS OF MOTION I
(2-0) 2 hours credit. Prerequisites: BIO 3463 or BIO 3163 and approval of the appropriate Allied Health Admissions Committee.
Analysis and evaluation of movement disorders and the use of assistive devices for their prevention and correction.
3761 DYNAMICS OF MOTION I LABORATORY
(0-3) 1 hour credit.
Must be taken concurrently with BIO 3752.
3773 CLINICAL CHEMISTRY
(3-0) 3 hours credit. Prerequisite: BIO 3513.
Physiological systems in normal and diseased processes and their correlation with clinical chemistry laboratory.
3782 CLINICAL CHEMISTRY LABORATORY
(0-6) 2 hours credit.
Must be taken concurrently with BIO 3773.
Analytical clinical chemistry techniques and automated clinical instrumentation with quality controls and blood analyses.
3793 OCCUPATIONAL THERAPY THEORY
(3-0) 3 hours credit. Prerequisite: BIO 2862 and approval of Occupational Therapy Admissions Committee.
Identification of the life tasks and adaptive skills of the developing human; observation and evaluation procedures used in the occupational therapy process correlated with field observations.

## 3813 CELLULAR BIOLOGY

(3-0) 3 hours credit. Prerequisites: BIO 1103, 1111, CHE 2203. The composition, function and interaction of cellular constituents and substructures at the ultra-structural level.

## 3821 CELLULAR BIOLOGY LABORATORY <br> (0-3) 1 hour credit. <br> Must be taken concurrently with BIO 3813.

3831 TISSUE AND ORGAN CULTURE
(1-0) 1 hour credit. Prerequisites: BIO 3513, 3521.
Theoretical and practical aspects of maintaining and growing cells, tissues and organs from various sources.

## 3842 TISSUE AND ORGAN CULTURE LABORATORY

 (0-6) 2 hours credit.Must be taken concurrently with BIO 3831.
3851 DIRECTED OBSERVATION IN OCCUPATIONAL THERAPY (0-5) 1 hour credit. Prerequisite: Approval of the Allied Health Admissions Committee in Occupational Therapy.
Directed observation and participation in selected field settings. To be repeated for credit to a total of two hours.

3862 IMMUNOHEMATOLOGY AND SEROLOGY (2-0) 2 hours credit. Prerequisites: BIO 2412, 4743.
Discussion of bloodbanking antigens and antibodies, crossmatching, and clinical serological assays in regard to normal and diseased states.

3872 IMMUNOHEMATOLOGY AND SEROLOGY LABORATORY (0-6) 2 hours credit.
Must be taken concurrently with BIO 3862.
Blood banking techniques and serological assays including radio immune assay procedures.
3883 THERAPEUTIC CONCEPTS AND PROCEDURES IN PHYSICAL THERAPY
(3-0) 3 hours credit. Prerequisite: Approval of Physical Therapy Admissions Committee.
Theory and application of the use of physical agents in patient treatment.
3893 THERAPEUTIC CONCEPTS LABORATORY
(0-9) 3 hours credit.
Must be taken concurrently with BIO 3883.
3902 OCCUPATIONAL THERAPY: THERAPEUTIC SKILLS
(2-0) 2 hours credit. Prerequisite: BIO 3793 and approval of Occupational Therapy Admissions Committee.
Identification, analysis and adaptation of life tasks and activities related to age-specific needs, capacities and roles.
3911 THERAPEUTIC SKILLS LABORATORY (0-3) 1 hour credit.
Must be taken concurrently with BIO 3902.
4073 LAW, ETHICS AND THE LIFE SCIENCES
(3-0) 3 hours credit. Prerequisite: BIO 1103, 1111 or consent of instructor. May not be applied to a major in this Division.
An examination of the ethical, philosophical and social implications of studies in those areas of the life sciences which affect public policy or action, e.g., incentives to slow population growth; psychology of consciousness and definitions of life and death.

4083 HEREDITY, EVOLUTION, RACE AND SOCIETY
(3-0) 3 hours credit. Prerequisite: BIO 1103, 1111 or consent of instructor. May not be applied to a major in this Division.
A study of variation and evolutionary change in relation to
human thought, experience, cultural evolution, diversity and mating systems.
4202 DYNAMICS OF MOTION II
(2-0) 2 hours credit. Prerequisite: BIO 3752.
Analysis and evaluation of movement disorders and the use of assistive devices for their prevention and correction. A continuation of BIO 3752 .
4211 DYNAMICS OF MOTION II LABORATORY
(0-3) 1 hour credit.
Must be taken concurrently with BIO 4202.

## 4222 ADVANCED CONCEPTS AND PROCEDURES IN PHYSICAL

 THERAPY(2-0) 2 hours credit. Prerequisite: Approval of Physical Therapy Admissions Committee.
Advanced training in developing rehabilitation treatment plans for comprehensive patient care.

4231 ADVANCED CONCEPTS AND PROCEDURES IN PHYSICAL THERAPY LABORATORY
(0-3) 1 hour credit.
Must be taken concurrently with BIO 4222.
4243 PHYSIOLOGICAL ECOLOGY
(3-0) 3 hours credit. Prerequisites: BIO 3213, 3221, 3242, 3251.

An integration of physiological and biochemical solutions and mechanisms to environmental problems at the organismic level.

4251 PHYSIOLOGICAL ECOLOGY LABORATORY
(0-3) 1 hour credit.
Must be taken concurrently with BIO 4243.
4333 POPULATION GENETICS
(3-0) 3 hours credit. Prerequisites: BIO 2313, 2321.
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, 2321, 3513, 3521. Molecular approach to structure, replication, mutation and phenotypic expression of genetic material.
4353 COMPARATIVE PHYSIOLOGY
(3-0) 3 hours credit. Prerequisites: BIO 3413, 3421.
A phylogenetic study of physiologic adaptation in animals.
4361 COMPARATIVE PHYSIOLOGY LABORATORY
(0-3) 1 hour credit.
Must be taken concurrently with BIO 4353.
A laboratory course illustrating the principles presented in BIO 4353.

## 4413 MAMMALIAN PHYSIOLOGY

(3-0) 3 hours credit. Prerequisite: BIO 3413, 3421 and consent of instructor.
Physiology of mammalian organs and organ systems.
4421 MAMMALIAN PHYSIOLOGY LABORATORY
(0-3) 1 hour credit.
Must be taken concurrently with BIO 4413.
4433 NEUROBIOLOGY
(3-0) 3 hours credit. Prerequisites: BIO 3413, 3421.
Anatomy and physiology of nervous systems, the mechanisms of neuronal functions.
4443 ENDOCRINOLOGY
(3-0) 3 hours credit. Prerequisites: BIO 3413, 3421, 3513, 3521.

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.
4451 ENDOCRINOLOGY LABORATORY
(0-3) 1 hour credit.
Must be taken concurrently with BIO 4443.
4463 HUMAN NEUROSCIENCES
(3-0) 3 hours credit. Prerequisite: BIO 3413 or 3463.
Structure and function of the human nervous system.
4471 HUMAN NEUROSCIENCES LABORATORY
(0-3) 1 hour credit.
Must be taken concurrently with BIO 4463.
4493 AIR POLLUTION AND INDUSTRIAL HYGIENE
(3-0) 3 hours credit. Prerequisites: BIO 1213, CHE 2003 and upper-division standing.
Discussion of the sources, quantities, effects of sampling and control of airborne pollutants in ambient air and industrial environments.

## 4523 INTERMEDIARY METABOLISM

(3-0) 3 hours credit. Prerequisites: BIO 3513, 3521.
A detailed consideration of metabolic pathways, energy metabolism and their regulation.
4531 INTERMEDIARY METABOLISM LABORATORY (0-3) 1 hour credit.
Must be taken concurrently with BIO 4523.
4543 BIOCHEMICAL TECHNIQUES
(0-6) 3 hours credit. Prerequisites: BIO 3513, 3521.
Laboratory experience in methods of biochemical fractionation, purification and analysis of components.
4603 PLANT PHYSIOLOGY
(3-0) 3 hours credit. Prerequisites: BIO 2343, 2351, CHE 2203,
2212.
Principles of organization of cellular activity and molecular structure of protoplasm; with emphasis on nutrition, translocation, mineral metabolism, respiration and photosynthesis.

## 4611 PLANT PHYSIOLOGY LABORATORY

(0-3) 1 hour credit. Must be taken concurrently with BIO 4603.
4622 BIOLOGICAL LITERATURE
(2-0) 2 hours credit. Prerequisite: senior standing.
Survey of selected biological references with emphasis on utilization of journals and scientific writing.

## 4723 VIROLOGY

(3-0) 3 hours credit. Prerequisites: BIO 3713, 3721, 3513, 3521. A study of the diversity of viruses and biochemical mechanisms for their replication.

## 4731 VIROLOGY LABORATORY

(0-3) 1 hour credit.
Must be taken with or following BIO 4723.

## 4743 IMMUNOLOGY

(3-0) 3 hours credit. Prerequisites: BIO 3713, 3721, 3513, 3521. A study of the properties of antigens and antibodies, current concepts of humoral and cell-mediated immunity and the cells involved.
4751 IMMUNOLOGY LABORATORY
(0-3) 1 hour credit.
Must be taken concurrently with BIO 4743.
4763 PARASITOLOGY
(3-0) 3 hours credit. Prerequisites: BIO 3713, 3721.
A study of the animal parasites of humans and related hosts with emphasis on their epidemiology, life cycles, pathology and control.
4771 PARASITOLOGY LABORATORY
(0-3) 1 hour credit.
Must be taken concurrently with BIO 4763.
4782 PATHOGENIC MICROORGANISMS
(2-0) 2 hours credit. Prerequisites: BIO 3713, 3721.
A consideration of medically important microorganisms and their interaction with animal and human hosts.
4792 PATHOGENIC MICROORGANISMS LABORATORY (0-6) 2 hours credit.
Must be taken concurrently with BIO 4782.
4802 OCCUPATIONAL THERAPY THEORY AND TREATMENT PLANNING
(2-0) 2 hours credit. Prerequisite: Approval of Occupational Therapy Admissions Committee. Overview of life tasks and adaptive skills of the developing human; treatment planning and professional communications with field observations.

## 4811 OCCUPATIONAL THERAPY THEORY AND PLANNING LABORATORY <br> (0-3) 1 hour credit. <br> Must be taken concurrently with BIO 4802. <br> 4823 OCCUPATIONAL THERAPY: MANAGEMENT AND CONSULTATION <br> (3-0) 3 hours credit. Prerequisite: Approval of Occupational Therapy Admissions Committee. <br> Planning, organizing, supervising, and implementing occupational therapy services as a line function and as a consultant; legal and ethical considerations. <br> 4836 CLINICAL MEDICINE <br> (6-0) 6 hours credit. Prerequisites: BIO 3463 and approval of the appropriate Allied Health Admissions Committee. <br> Lectures covering the various areas of medicine and surgery emphasizing the conditions commonly encountered in physical medicine and rehabilitation. <br> 4843 ADVANCED CLINICAL MICROBIOLOGY <br> (2-6) 3 hours credit. Prerequisite: Approval of Medical Technology Admissions Committee. An integrated lecture and laboratory with emphasis on abnormal microbial flora found in diseased humans.

4854 ADVANCED CLINICAL CHEMISTRY
(2-9) 3 hours credit. Prerequisite: Approval of Medical Technology Admissions Committee. An integrated lecture and laboratory with emphasis on special clinical chemistries, toxicology, and clinical chemistry of abnormal or diseased states.

## 4863 ADVANCED CLINICAL HEMATOLOGY

(2-6) 3 hours credit. Prerequisite: Approval of Medical Technology Admissions Committee. An integrated lecture and laboratory with emphasis on blood pictures, bone marrows and hematological findings of diseased states.

## 4871 PRECLINICAL TRAINING

(0-5) 1 hour credit. Prerequisite: Approval of the Allied Health Admissions Committee in Physical Therapy.
Observations and practical experience in a clinical setting. May be repeated for credit to a total of two hours by permission.
4884 ADVANCED IMMUNOHEMATOLOGY AND SEROLOGY
(2-9) 4 hours credit. Prerequisite: Approval of Medical Technology Admissions Committee.
An integral lecture and laboratory with emphasis on unusual antibodies and incompatibilities.
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. For students needing specialized work. May be repeated for credit, but not more than 6 hours will apply to the bachelor's degree.
4923 SPECIAL PROJECT
(2-9) 3 hours credit. Prerequisite: Consent of Division Director. An intensive supervised student project.
4933 CLINICAL EDUCATION
(0-15) 3 hours credit. Prerequisite: Approval of the Allied Health Admissions Committee in Physical Therapy.
Supervised training in a treatment setting to fulfill professional curriculum requirements. May be repeated for credit to a total of six hours.
4943 FIELD WORK EXPERIENCE
(0-15) 3 hours credit. Prerequisite: Approval of the Allied Health Admissions Committee in Occupational Therapy.
In-depth experience in and responsibility for the delivery of health care services to patient/clients. May be repeated for credit to a total of fifteen hours.

## 4953 SPECIAL STUDIES IN BIOLOGY

(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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.
4973 PROSEMINAR
(3-0) 3 hours credit. Prerequisite: Consent of Division Director. Presentation and discussion of current scientific literature.

## DIVISION OF EARTH AND PHYSICAL SCIENCES

The degree programs offered by this Division reflect its policy of providing comprehensive education of the highest quality, individualized to the needs and interests of the student. Completion of a core curriculum permits entry into one of several highly specialized areas in Applied Science (Applied Geology, Applied Physics, Food Technology, ${ }^{49}$ Polymer Science) or Chemistry. A major in any of these prepares the student for positions in industry and government as well as entry into professional and graduate schools. The recommended programs for majors concentrate much of the specialty in the early years, thereby permitting increased specialization later in the university career.

A major in any of the Applied Science concentrations provides a sound background for completion of an engineering degree program with a minimum of duplication in course material.
The Bachelor of Science in Applied Science has three major goals: (1) to prepare a student for employment in one of the concentrations (Applied Geology, Applied Physics, Food Technology ${ }^{50}$ and Polymer Science), (2) to provide the fundamental courses enabling a student to transfer to The University of Texas at Austin to complete a degree program in Civil Engineering, Environmental Engineering, Chemical Engineering, Electrical Engineering or Engineering Science, and (3) to provide the background necessary for graduate study in a variety of science and engineering specialty areas.

## A. Applied Geology

The severe shortages occurring in the materials needed to maintain an industrial civilization call for a growth in manpower and technology in the area of Applied Geology. Graduates of this program work in mineral exploration and development, water resources, environmental geology

[^67]and other applications. In addition, the program provides a strong background for continued study at the graduate level.
B. Applied Physics

The Applied Physics concentration is intended for students who wish to pursue an industrial career involving the numerous practical applications of physics. Modern discoveries such as radar, transistors, and computers are exemplary of such training. The program emphasizes a unique combination of fundamental concepts of physics with the vast potential for their industrial applications. Graduates trained under this program find employment opportunities in areas such as newer forms of energy, newer forms of communication and transportation and newer industrial aspects of sound and light. Industries dealing with satellite communications, solar energy utilization, and efficient conversion of chemical energy into mechanical energy are among those job opportunities for graduates of this concentration. The basic physics component of this concentration remains sufficiently strong to meet the needs of students who plan graduate work in physics, as well as those planning graduate work in other sciences and medicine.
C. Food Technology ${ }^{51}$

The Food Technology concentration is formulated on the basis of the broad-based food industry in the nation and in the State of Texas. Graduates in this area find opportunities in the food industries. Examples are the production of cotton seed oil, peanut butter, cotton seed protein, dairy products, fruits, meat and meat by-products.

Major upper-division courses required for this concentration will appear in the next issue of the Undergraduate Catalog. Students interested in this concentration should consult the Director of the Division of Earth and Physical Sciences.

[^68]
## D. Polymer Science

The Polymer Science concentration is formulated on the basis of relevance to local and national needs, estimated present and future job market trends, and local resources in the petrochemical industries. Many industrial polymers are derived from petroleum. Examples are paints and coatings, synthetic fibers, polymer foams, photographic films and printing inks. Transportation, construction, furniture and bedding, flotation, packaging, footwear and numerous other consumer needs are strongly dependent upon a polymer-science base.
For those students who seek a formal engineering degree, these curricula offer an opportunity to obtain a major part of their engineering training at The University of Texas at San Antonio prior to transfer. For example, the program enables UT San Antonio graduates in Applied Science to earn a second bachelor's degree at The University of Texas at Austin in Petroleum, Environmental and Civil Engineering (Applied Geology), Electrical Engineering or Engineering Science (Applied Physics) or Chemical Engineering (Polymer Science and Food Technology).

For those students who plan to transfer to an engineering curriculum prior to completing the Bachelor of Science in Applied Science degree, a sequence of courses, tailored to the engineering program of interest, will be recommended by the Advisor.

## BACHELOR OF SCIENCE DEGREE IN APPLIED SCIENCE

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, is $128 .{ }^{52}$

All candidates for the degree must complete the following core of 33 semester hours in the sciences and mathematics:

| AS | 2902 | Introduction to Applied Science or |
| :--- | :--- | :--- |
| AS | 2912 | Introduction to Engineering |
| AS | 4923 | Special Studies Project |
| AS | 4933 | Practicum in Applied Science |
| CHE | 1103 | Introductory Chemistry |
| CHE | 2012 | Inorganic Qualitative and Quantitative Analysis |
| CHE | 2003 | Chemical Principles |
| MAT | 1213 | Calculus I |
| MAT | 1223 | Calculus II |
| CS | 1713 | Introduction to Computer Science |
| PHY | 1903 | Technical Physics I |
| PHY | 1911 | Technical Physics I Laboratory |
| PHY 1923 | Technical Physics II |  |
| PHY | 1931 | Technical Physics II Laboratory |

In addition, students must complete 45 semester hours selected with approval of the students' Advisor from one of the following Applied Science concentrations:

## Applied Geology

A. 35 semester hours in the major, 21 of which must be at the upper-division level.

1. 23 semester hours of required courses are:

AS 1002 Interpreting the Earth
AS 1011 Interpreting the Earth Laboratory
AS 1022 Earth History and Stratigraphy
AS 1031 Earth History and Stratigraphy Laboratory
AS 2002 Earth Materials I

[^69]AS 2012 Earth Materials I Laboratory
AS 3022 Earth Materials II
AS 3032 Earth Materials II Laboratory
AS 3102 Structural Geology: Map and Photo Analysis
AS 3111 Structural Geology: Map and Photo Analysis Laboratory
AS 3122 Surface Processes and Sedimentary Geology
AS 3131 Surface Processes and Sedimentary Geology Laboratory
AS 4943 Field Methods in Geology
2. 12 additional semester hours of approved elective courses in Applied Science at the upper-division level are required from the following:
AS 3142 Economic Geology I: Metals and Industrial Minerals
AS 3163 Oceanography
AS 3182 Economic Geology II: Fuels
AS 3191 Economic Geology II: Fuels - Laboratory
AS 4022 Engineering Geology
AS 4042 Hydrogeology
AS 4053 Hydrology
AS 4062 Principles of Environmental Geology
B. 10 semester hours of approved support work at the upperdivision level.

## Applied Physics

A. 39 semester hours in the major, all of which must be at the upper-division level.

1. 16 semester hours of required courses are:

AS 3223 Electronics
AS 3231 Electronics Laboratory
AS 3263 Microphysics
AS 3283 Electricity and Magnetism
AS 3293 Thermodynamics and Statistical Mechanics
AS 3383 Dynamics
2. 23 additional semester hours of approved elective courses in Applied Science ${ }^{53}$ at the upper-division

[^70]level are required from the following:
AS 3203 Circuit Analysis
AS 3211 Circuit Analysis Laboratory
AS 3273 Statics
AS 3303 Alternative Energy Sources
AS 3312 Experimental Physics I
AS 3323 Wave Motion
AS 3332 Experimental Physics II
AS 3363 Biophysics I
AS 3373 Biophysics II
AS 4263 Introduction to Quantum Mechanics
AS 4283 Electromagnetic Radiation
AS 4293 Fluid Mechanics
AS 4323 Acoustics
AS 4331 Acoustics Laboratory
AS 4363 Nuclear Energy: Fission and Fusion
AS 4373 General Geophysics
AS 4382 Exploration Geophysics
AS 4391 Exploration Geophysics Laboratory
B. 6 semester hours of required support work in Mathematics:

MAT 2213 Calculus III
MAT 3243 Calculus for Applications

## Polymer Science

A. 19 semester hours in the major, all of which must be at the upper-division level.

1. 12 semester hours of required courses are:

AS 3603 Polymer Science I
AS 3611 Polymer Science I Laboratory
AS 3623 Polymer Science II
AS 3631 Polymer Science II Laboratory
AS 4653 Polymer Technology
AS 4661 Polymer Technology Laboratory
2. 7 additional semester hours of approved elective courses in Applied Science at the upper-division level to be chosen from the following:

AS 3643 Natural and Synthetic Organic Polymers
AS 3651 Natural and Synthetic Organic Polymers Laboratory

AS 4623 Coatings Technology
AS 4703 Organic Chemistry of Coatings
AS 4723 Corrosion
AS 4743 Industrial and Commercial Applications of Polymers
B. 26 semester hours of support work, 21 of which must be at the upper-division level.

1. 20 semester hours of required courses are:

CHE 2203 Organic Chemistry I
CHE 2212 Organic Qualitative Analysis
CHE 3003 Organic Chemistry II
CHE 3012 Organic Quantitative Analysis
CHE 3203 Physical Chemistry I
CHE 3212 Physical Chemistry Laboratory
CHE 3223 Physical Chemistry II
CHE 3232 Instrumental Analysis
2. 6 additional semester hours or approved upper-division coursework are required in physical chemistry, organic chemistry, biochemistry, biology, physics, and/or 4000 -level polymer science courses.

## COURSE DESCRIPTIONS

## APPLIED SCIENCE

(AS)
1002 INTERPRETING THE EARTH
(2-0) 2 hours credit. Concurrent registration for AS 1011 required; exceptions with consent of instructor.
The Earth as a dynamic planet; relation of Earth's present day processes to its materials, structure and internal constitution. Nature of minerals and rocks, the hydrosphere, tectonics, and surface features of Earth.
1011 INTERPRETING THE EARTH LABORATORY
(0-3) 1 hour credit. Concurrent registration for AS 1002 required; exceptions with consent of instructor.
Relation of Earth's present day processes to its materials, structure and internal constitution. Field trips and laboratory study of minerals, rocks, maps and air and satellite photos.
1022 EARTH HISTORY AND STRATIGRAPHY
(2-0) 2 hours credit. Prerequisites: AS 1002 and 1011. Concurrent registration for AS 1031 required; exceptions with consent of instructor.
Formation and evolution of the Earth, its life forms, and the major features of its surface.

1031 EARTH HISTORY AND STRATIGRAPHY LABORATORY (0-3) 1 hour credit. Prerequisites: AS 1002 and 1011. Concurrent registration for AS 1022 required; exceptions with consent of instructor.
Laboratory study of fossils and rock sequences; interpretation of Earth history.
1902 ENGINEERING DRAWING
(1-3) 2 hours credit.
Freehand and instrument drawing; shape and size description; pictorial methods; freehand lettering; charts and graphs.
2002 EARTH MATERIALS I
(2-0) 2 hours credit. Concurrent registration for AS 2012 required; exceptions with consent of instructor.
Crystallography, chemistry, physical properties and origin of minerals. Principles and methods of optical crystallography.
2012 EARTH MATERIALS I LABORATORY
(0-6) 2 hours credit. Concurrent registration for AS 2002 required; exceptions with consent of instructor.
Laboratory study of crystal models, minerals, and use of the petrographic microscope for the identification of minerals in immersion liquids and in thin section.
2902 INTRODUCTION TO APPLIED SCIENCE
(2-0) 2 hours credit.
Discussions which compare and contrast the nature of, and the difference between, the basic and applied sciences. Some fundamental skills, necessary in all quantitative sciences, are also considered (e.g., basic theory of errors, units, etc.)

## 2912 INTRODUCTION TO ENGINEERING

(2-0) 2 hours credit.
Introduction to engineering as a career. Case studies are used to illustrate the scope and nature of the professional activities of engineers. Alternative approaches to engineering problem solving and design by use of engineering principles and modern developments are considered.
2951 SPECIAL INTEREST TOPICS
(1-0) 1 hour credit.
Special interest geology courses including topics such as geology of Texas, volcanoes and their activity, crystals and gems, geology of Mexico and Central America, and geological investigation of the moon and planets. May be repeated for credit when the topics vary to a maximum of six hours.
3022 EARTH MATERIALS II
(2-0) 2 hours credit. Prerequisites: AS 2002 and 2012. Concurrent registration for AS 3032 required; exceptions with consent of instructor.
Description, occurrence, and origin of igneous, metamorphic, and sedimentary rocks.

EARTH MATERIALS II LABORATORY
(0-6) 2 hours credit. Prerequisites: AS 2002 and 2012. Concurrent registration for AS 3022 required; exceptions with consent of instructor.
Laboratory study of rocks in hand specimen and thin section.
3102 STRUCTURAL GEOLOGY: MAP AND PHOTO ANALYSIS (2-0) 2 hours credit. Prerequisites: AS 1002 and 1011. Concurrent registration for AS 3011 required; exceptions with the consent of instructor.
Response of earth materials to natural stresses. Description and origin of rock structures.
3111 STRUCTURAL GEOLOGY: MAP AND PHOTO ANALYSIS LABORATORY
(0-3) 1 hour credit. Prerequisites: AS 1002 and 1011. Concurrent registration for AS 3002 required; exceptions with consent of instructor.
Laboratory study of structural interpretation using maps, crosssections, air photos, and descriptive geometric and stereographic methods.
3122 SURFACE PROCESSES AND SEDIMENTARY GEOLOGY (2-0) 2 hours credit. Prerequisites: AS 2022 and 2032. Concurrent registration for AS 3031 required; exceptions with consent of instructor.
Processes of erosion, transportation and deposition that transform the surface of the continents and form bodies of sedimentary rock and their primary structures.
3131 SURFACE PROCESSES AND SEDIMENTARY GEOLOGY LABORATORY
(0-3) 1 hour credit. Prerequisites: AS 2022 and 2032. Concurrent registration for AS 3022 required; exceptions with consent of instructor.
Field trips and laboratory studies of sedimentary processes and their products.
3142 ECONOMIC GEOLOGY I: METALS AND INDUSTRIAL MINERALS
(2-0) 2 hours credit. Prerequisites: AS 1002 and 1011.
Ore and industrial mineral genesis. Description and distribution of the major mineral deposits.
3163 OCEANOGRAPHY
(3-0) 3 hours credit. Prerequisite: AS 3122.
General oceanography, with emphasis on marine geology and especially the continental margins.
3182 ECONOMIC GEOLOGY II: FUELS
(2-0) 2 hours credit. Prerequisites: AS 1002, 1011, 1022, and 1031.
Concurrent registration for AS 3091 required; exceptions with consent of instructor.
Geology of petroleum, natural gas, coal, uranium; geothermal energy sources.

3191 ECONOMIC GEOLOGY II: FUELS LABORATORY
(0-3) 1 hour credit. Prerequisites: AS 1002, 1011, 1022, and 1031. Concurrent registration for AS 3082 required; exceptions with consent of instructor.
Laboratory studies of samples, maps and logs. Preparation of sample logs and subsurface maps.
3203 CIRCUIT ANALYSIS
(3-0) 3 hours credit. Prerequisites: PHY 1923, CS 1713 and MAT 2213. AS 3211 should be taken concurrently.

Steady state analysis of linear DC and AC networks. The course emphasizes matrix analysis and computer methods.

## 3211 CIRCUIT ANALYSIS LABORATORY

(0-3) 1 hour credit. Prerequisite or concurrent enrollment: AS 3203.
Laboratory to accompany AS 3203.
3223 ELECTRONICS
(3-0) 3 hours credit. Prerequisite: PHY 1923. AS 3231 should be taken concurrently.
Introduction to DC and AC circuits, electronic components and their uses in basic circuits for instrumentation commonly encountered in the scientific laboratory.

## 3231 ELECTRONICS LABORATORY

(0-3) 1 hour credit. Prerequisite or concurrent enrollment: AS 3223.
Laboratory to accompany AS 3223.
3243 ELECTRONIC CIRCUITS
(3-0) 3 hours credit. Prerequisite: AS 3223. AS 3251 should be taken concurrently.
Design of linear amplifiers, power supplies and other basic electronic instrumentation in common use.

## 3251 ELECTRONIC CIRCUITS LABORATORY

(0-3) 1 hour credit. Prerequisite or concurrent enrollment: AS 3243.

Laboratory to accompany AS 3243.
3263 MICROPHYSICS
(3-0) 3 hours credit. Prerequisite: PHY 1923. Prerequisite or concurrent enrollment: MAT 2213.
Atomic, molecular, nuclear, and solid-state physics; basic concepts, principles and applications.

## 3273 STATICS

(3-0) 3 hours credit. Prerequisite: PHY 1903 and MAT 1223.
Vector algebra, force systems, free body diagrams. Engineering applications of equilibrium, centroids, moments of inertia.

[^71]Theory and applications of electrostatics, currents, magnetic fields. Introduction to Maxwell's equations.
3293 THERMODYNAMICS AND STATISTICAL MECHANICS
(3-0) 3 hours credit. Prerequisites: PHY 1923, CHE 2003, and MAT 2213.
Heat, kinetic theory of gases, laws of thermodynamics and their practical applications. Elements of statistical mechanics.
3303 ALTERNATIVE ENERGY SOURCES
(3-0) 3 hours credit. Prerequisites: PHY 1923 and CHE 2003. AS 3312 should be taken concurrently.
Solar, wind and tidal energy. Energy storage problems. Basic physics, current technology and some economic considerations.
3312 EXPERIMENTAL PHYSICS I
(0-6) 2 hours credit. Prerequisite or concurrent enrollment: AS 3303.
Laboratory to accompany AS 3303. Experiments applicable to energy studies. May include field trips.

## 3323 WAVE MOTION

(3-0) 3 hours credit. Prerequisites: MAT 2213 and an upper division Physics lecture course. AS 3332 should be taken concurrently.
The essential features of wave motion and its applications primarily in physical optics. Optical correlation techniques, lasers, holography, fiber optics, magneto- and electro-optical phenomena and their applications are covered as time permits.
3332 EXPERIMENTAL PHYSICS II
(0-6) 2 hours credit. Prerequisite or concurrent enrollment: AS 3323.
Laboratory to accompany AS 3323. Experiments mainly in optics.

## 3363 BIOPHYSICS I

(3-0) 3 hours credit. Prerequisites: CHE 2003, PHY 1923 or PHY 1823, and MAT 1223.
Study of biological systems from the physicist's point of view. Topics are: introduction to atomic structure, molecular bonds, concepts of molecular biophysics, macro-molecules, interaction of radiation with biological materials.

3373 BIOPHYSICS II
(3-0) 3 hours credit. Prerequisite: AS 3363.
Study of biological systems from a physicist's point of view. Topics are: molecular tranformations and methods of regulation, survey of physical experimental techniques in molecular biophysics, macroscopic structures in the context of molecular biophysics, and thermodynamics of living systems.
3383 DYNAMICS
(3-0) 3 hours credit. Prerequisite: PHY 1923. Prerequisite or concurrent enrollment: MAT 2213.
Kinematics and dynamics of a particle, systems of particles, rigid body motion in a plane. Applications are emphasized.

3603 POLYMER SCIENCE I
(3-0) 3 hours credit. Prerequisite: CHE 3203.
Basic principles of polymer science; kinetics and mechanisms of polymerization and copolymerizations; methods of polymerization; molecular weight determinations and characterization of polymers; solution properties, polymer reactions, crosslinking, graft and block copolymerizations; polymer degradation and stabilization.
3611 POLYMER SCIENCE I LABORATORY
(0-3) 1 hour credit. Prerequisite: AS 3603 or concurrent registration.
Laboratory projects illustrating and extending the concepts discussed in AS 3603.
3623 POLYMER SCIENCE II
(3-0) 3 hours credit. Prerequisite: AS 3603.
Structural and physical aspects of polymers; molecular basis for polymer properties and behavior; the rubbery, glassy and crystalline states; viscoelectricity and rubber elasticity; glass transition; structure, morphology, mechanical, optical and electrical properties.
3631 POLYMER SCIENCE II LABORATORY
(0-3) 1 hour credit. Prerequisite: AS 3623 or concurrent registration.
Laboratory projects illustrating and extending the concepts discussed in AS 3623.

3643 NATURAL AND SYNTHETIC ORGANIC POLYMERS
(3-0) 3 hours credit. Prerequisite: AS 3623.
Preparation, structure and properties of addition and condensation polymers; polymerization by ring opening; block and graft polymers. Structure and properties of cellulose, proteins, rubber and their derivatives.
3651 NATURAL AND SYNTHETIC ORGANIC POLYMERS LABORATORY
(0-3) 1 hour credit. Prerequisite: AS 3643 or concurrent registration.
Laboratory projects illustrating and extending the concepts discussed in AS 3643.
4022 ENGINEERING GEOLOGY
(2-0) 2 hours credit. Prerequisite: AS 1002 and 1011 and consent of instructor.
Geologic factors in the construction of large structures and excavations. Physical properties of natural materials. Case studies.
4042 HYDROGEOLOGY
(2-0) 2 hours credit. Prerequisites: AS 1002 and 1011 and consent of instructor.
Hydrologic cycle and the theory of underground water. Recharge and discharge of aquifers; water quality; exploration and development of ground water supplies.

## 4053 HYDROLOGY

(3-0) 3 hours credit. Prerequisite: AS 4293 or consent of instructor. The examination of various components of the hydrologic cycle in the atmosphere and outer crust of the earth. Emphasis is placed on surface waters through analysis of hydrologic data relating to rainfall, runoff, infiltration and evaporation.

## 4062 PRINCIPLES OF ENVIRONMENTAL GEOLOGY

(2-0) 2 hours credit. Prerequisites: AS 1002 and 1011 and consent of instructor.
Geologic factors important to city and regional planning. Land capability studies; geologic hazards.

## 4263 INTRODUCTION TO QUANTUM MECHANICS

(3-0) 3 hours credit. Prerequisites: AS 3263 and MAT 3243.
Wave packets, uncertainty principle, Schrodinger equation, onedimensional problems, the hydrogen atom and angular momentum.

4283 ELECTROMAGNETIC RADIATION
(3-0) 3 hours credit. Prerequisite: AS 3283.
Maxwell's equations, electromagnetic waves, interaction of electromagnetic radiation with matter, such as in reflection and refraction, waveguides and scattering of plane waves.
4293 FLUID MECHANICS
(3-0) 3 hours credit. Prerequisites: AS 3273 and MAT 1223.
Dynamical properties of fluids from basic equations of motion; behavior of fluids in actual situations: The atmosphere and the ocean.

## 4323 ACOUSTICS

(3-0) 3 hours credit. Prerequisites: PHY 1923 and MAT 2213. AS 4331 should be taken concurrently.
Applications of infrasound and ultrasound, including sonar and biomedical applications. Noise suppression methods.

## 4331 ACOUSTICS LABORATORY

(0-3) 1 hour credit. Prerequisite or concurrent enrollment: AS 4323.

Laboratory to accompany AS 4323.
4363 NUCLEAR ENERGY: FISSION AND FUSION
(3-0) 3 hours credit. Prerequisite: AS 3263.
Review of the physics of the nucleus. Fission: survey of nuclear reactor technology, and consideration of potential hazards versus benefits. Fusion: physics of electro-magnetism and statistical mechanics necessary to a qualitative understanding of the plasma state of matter; current technology surveyed. Comparison with other energy sources.
4373 GENERAL GEOPHYSICS
(3-0) 3 hours credit. Prerequisites: AS 1002, 1011, PHY 1923 and consent of instructor.
Geomagnetism, gravity, seismology, and heat flow. Interior of the earth and tectonics.

4382 EXPLORATION GEOPHYSICS
(2-0) 2 hours credit. Prerequisite: AS 4373. Concurrent registration for AS 4391 required; exceptions with consent of instructor. Principles of geophysical prospecting. Magnetic, gravity and seismic methods.
4391 EXPLORATION GEOPHYSICS - LABORATORY
(0-2) 1 hour credit. Prerequisite: AS 4373. Concurrent registration for AS 4382 required; exceptions with consent of instructor.
Planning and execution of exploration programs and intepretation of the results of magnetic, gravity and seismic surveying.
4623 COATINGS TECHNOLOGY
(3-0) 3 hours credit. Prerequisite: AS 3623.
Convertible and nonconvertible coatings; solvents, plasticizers, lacquers, varnishes, formulation, pigmentation; film properties, chemical resistance, adhesion, hardness, flexibility, abrasion resistance, strength, color, opacity gloss; electrocoating; radiation and photo-curing. Pigmented coatings (dispersion, characteristics, vehicle characteristics, formulation, manufacture, application); extender pigments; decorative paints and industrial finishes; corrosion and chemical resistant paint systems.
4653 POLYMER TECHNOLOGY
(3-0) 3 hours credit. Prerequisites: AS 3643 and AS 3651.
Finishing of polymers; thermosets; molding powders, laminates; polymer foams; coatings, drying oils, alkyds, epoxy resins, urethanes, natural and synthetic rubber processing; vulcanization and oxidation of polyolefins and polydiones; polymer latices. Film and fiber formation; melt, wet and dry spinning, orientation; adhesion; adhesive systems, polymer-plasticizer interaction, polymer-fiber interactions, reinforced systems, packaging materials.
4661 POLYMER TECHNOLOGY LABORATORY
(0-3) 1 hour credit. Prerequisite: AS 4653 or concurrent registration.
Laboratory projects illustrating and extending the concepts discussed in AS 4653.
4703 ORGANIC CHEMISTRY OF COATINGS
(3-0) 3 hours credit. Prerequisite: AS 3623.
Chemistry of autoxidation, glyceride oils; varnishes; and resins, including alkyd, epoxy, amino and phenol formaldehyde, rubber and silicone resins; acrylic and vinyl coatings; polyurethanes and copolymers. Radiation curing, electrodeposition, photo-curable coatings.
4723 CORROSION
(3-0) 3 hours credit. Prerequisite: AS 3623.
Electrochemical aspects, reaction mechanisms, thermodynamics and kinetics of corrosion processes; prevention of corrosion, cathodic and anodic protection; inhibitors, passivators; coatings.

4743 INDUSTRIAL AND COMMERCIAL APPLICATIONS OF POLYMERS
(3-0) 3 hours credit. Prerequisite: AS 3623.
Mechanical, electrical and thermal properties of engineering plastics; applications as materials of construction; polymers in biology and biomedical engineering; space technology; specialty polymers for high temperature applications, environmental effects on polymers; rain erosion, weathering, corrosive environment, biological environment; radiation effects.

## 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. For students needing specialized work. May be repeated for credit, but not more than 6 hours will apply to the bachelor's degree.
4923 SPECIAL PROJECT
3 hours credit. Prerequisite: Consent of Division Director.
A special studies laboratory research or library readings project resulting in a report. Limited to students in their final year of undergraduate study.
4931-3 PRACTICUM IN APPLIED SCIENCE
1-3 hours credit. Prerequisite: Consent of Division Director.
A twelve-week summer program of research and/or supervised applications of theory in an industrial environment.
4943 FIELD METHODS IN GEOLOGY
(0-9) 3 hours credit. Prerequisites: AS 1002 and 1011.
Use of surveying methods and topographic and air photo bases for geologic mapping. Description, recording, and interpretation of field relationships.
4953 SPECIAL STUDIES IN APPLIED SCIENCE
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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 PHYSICS <br> (PHY)

## 1603 <br> PRACTICAL PHYSICS

(3-0) 3 hours credit. Prerequisite: High school algebra.
A one-semester course in selected topics of particular interest to personnel in the auxiliary health professions and nursing.

The orientation is towards the practical aspects of physics as may be found in laboratory applications of physics.
1703 PHYSICS OF ENERGY AND THE ENVIRONMENT (3-0) 3 hours credit.
The topics considered, and some of their inter-relations, are: the automobile and mass transportation, common sources of energy, electrical power generation, nuclear, solar and geothermal energy, communications, air, water and noise pollution. Use of mathematics is limited.
1723 LIGHT, COLOR AND PHOTOGRAPHY
(3-0) 3 hours credit.
A non-mathematical study of the basic concepts of optics and their applications in everyday life. Perception of light and color, lasers and other topics of interest to non-scientists, especially artists and photographers, are discussed.
1803 PHYSICS FOR LIFE SCIENCES I
(3-0) 3 hours credit. Prerequisite: Working knowledge of high school algebra. PHY 1811 should be taken concurrently.
The principles of physics with applications and problem solving useful to biology and pre-medical students. Topics are mechanics and wave phenomena.
1811 PHYSICS FOR LIFE SCIENCES I LABORATORY
(0-3) 1 hour credit. Prerequisite or concurrent enrollment in PHY 1803.
Laboratory to accompany PHY 1803.
1823 PHYSICS FOR LIFE SCIENCES II
(3-0) 3 hours credit. Prerequisite: PHY 1803. PHY 1831 should be taken concurrently.
The principles of physics with applications and problem solving useful to biology and pre-medical students. Topics are electricity and magnetism, optics and modern physics.
1831 PHYSICS FOR LIFE SCIENCES II LABORATORY
(0-3) 1 hour credit. Prerequisite or concurrent enrollment in PHY 1823.
Laboratory to accompany PHY 1823.
1903 TECHNICAL PHYSICS I
(3-0) 3 hours credit. Prerequisite or concurrent enrollment in MAT 1213 and concurrent enrollment in PHY 1911.
The basic concepts and methods of physics. Topics are mechanics and wave phenomena.
1911 TECHNICAL PHYSICS I LABORATORY
(0-3) 1 hour credit. Prerequisite or concurrent enrollment in PHY 1903.

Laboratory to accompany PHY 1903.
1923 TECHNICAL PHYSICS II
(3-0) 3 hours credit. Prerequisites: PHY 1903 and MAT 1223. The latter may be taken concurrently.

A continuation of PHY 1903. Topics covered are electricity and magnetism, optics and an introduction to modern physics.
1931 TECHNICAL PHYSICS II LABORATORY
(0-3) 1 hour credit. Prerequisite or concurrent enrollment in PHY 1923.
Laboratory to accompany PHY 1923.
3103 OUTER SPACE: FRONTIER OR CURIOSITY?
(3-0) 3 hours credit. Prerequisite: Upper-division standing. Brief history including recent Pioneer fly-bys, quasars, black holes and neutron stars. Implications for man, his nature and place therein. Science fiction and outer space; extra terrestrial life.

3403 PHYSICS FOR MEDICAL TECHNOLOGY
(3-0) 3 hours credit. Prerequisite: Working knowledge of high school algebra.
A one-semester course primarily for students in the medical technology program. Areas of physics covered are electricity and magnetism, electric circuits, electronics and optics. PHY 3411 should be taken concurrently.
3411 PHYSICS FOR MEDICAL TECHNOLOGY LABORATORY (0-3) 1 hour credit. Prerequisite or concurrent enrollment in PHY 3403.
Laboratory to accompany PHY 3403.
4103 CLASSICAL CONCEPTS IN PHYSICS
(3-0) 3 hours credit. Prerequisite: PHY 1923.
Framework of mechanics, thermodynamics and electromagnetism studied with attention to historical and philosophical aspects. Some applications are considered.

## COURSE DESCRIPTIONS

## ASTRONOMY

(AST)
1013 INTRODUCTION TO ASTRONOMY I
(3-0) 3 hours credit.
A descriptive course including the development of astronomy, and its methods, the motions, laws and evolution of the solar system. Occasional evening viewing sessions are held.
1023 INTRODUCTION TO ASTRONOMY II
(3-0) 3 hours credit. Prerequisite: AST 1013 or consent of instructor.
The 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.

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. This course, though optional, is of most value when taken concurrently with AST 1023.

## BACHELOR OF SCIENCE DEGREE IN CHEMISTRY

The minimum number of semester hours required for this degree, including the 50 semester hours of General Education Requirements, is $128 .{ }^{54}$ All candidates for the degree must complete:
A. 39 semester hours in Chemistry, 26 of which must be at the upper-division level.

1. 31 semester hours of required courses are:

CHE 1103 Introductory Chemistry
CHE 2003 Chemical Principles
CHE 2012 Inorganic Qualitative and Quantitative Analysis
CHE 2203 Organic Chemistry I
CHE 2212 Organic Qualitative Analysis
CHE 3003 Organic Chemistry II
CHE 3012 Organic Quantitative Analysis
CHE 3203 Physical Chemistry I
CHE 3212 Physical Chemistry Laboratory
CHE 3223 Physical Chemistry II
CHE 3232 Instrumental Analysis
CHE 4923 Special Project in Chemistry
2. 8 additional semester hours of approved elective Chemistry at the upper-division level are required.
B. 29 semester hours of support work in Science and Mathematics.

1. 20 semester hours of required courses are:

PHY 1903 Technical Physics I
PHY 1911 Technical Physics I Laboratory
PHY 1923 Technical Physics II
PHY 1931 Technical Physics II Laboratory
MAT 1213 Calculus I
MAT 1223 Calculus II
C. 10 semester hours of free electives.

MAT 2213 Calculus III or

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## CS 1723 Information Structures I

CS 1713 Introduction to Computer Science
2. 9 additional hours of elective support work are required in courses in the College of Sciences and Mathematics, as approved by the Advisor.

# COURSE DESCRIPTIONS 

## CHEMISTRY

(CHE)

## 1103 INTRODUCTORY CHEMISTRY

(3-0) 3 hours credit.
An introduction to descriptive inorganic chemistry and atomicmolecular structure. Including such fundamental concepts as the periodic system of elements, valency, chemical bonding, reactions and reaction mechanisms, stoichiometry, equilibria, acids and bases, thermochemistry, molecular-kinetic theory, and states of matter.

## 1111 INTRODUCTORY CHEMISTRY LABORATORY

(0-3) 1 hour credit. Prerequisite or concurrent enrollment in CHE 1103.

An introduction to the basic operations of the chemical laboratory with examples chosen from inorganic chemistry. This course is designed for dental auxiliary students and physical therapists; it may not be applied to a major in chemistry; biology or medical technology.

## 1122 INTRODUCTORY CHEMISTRY LABORATORY WORKSHOP

 (0-6) 2 hours credit. Prerequisite 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 and is strongly recommended for students planning advanced course work in chemistry.
1153 THE CHEMISTRY OF FASHION
(3-0) 3 hours credit. May not be applied to a major in chemistry. A survey of the chemical nature of synthetic fibers, fabrics, scents, dyes, cosmetics, and toiletries.
1173 ALCHEMY AND THE SOURCES OF MODERN CHEMISTRY (3-0) 3 hours credit. May not be applied to a major in chemistry. Scientific content of magic, witchcraft, alchemy, and iatrochemistry. Origins and development of ideas concerning composition and transformations of matter: metallurgy, ceramics, fermentation, etc. Readings will include primary materials selected from Renaissance and modern literary and scientific sources.

## 2003 CHEMICAL PRINCIPLES

(3-0) 3 hours credit. Prerequisite: CHE 1103. CHE 1122 is recommended.
Primarily for science majors. Elementary inorganic and physical chemistry: a continuation of descriptive inorganic chemistry, coordination chemistry, solutions and electrolytes, redox processes, elementary thermodynamics, chemical kinetics, and
elementary electrochemistry and nuclear chemistry; introduction to organic chemistry.

## 2012 INORGANIC QUALITATIVE AND QUANTITATIVE ANALYSIS

(0-6) 2 hours credit. Prerequisite: CHE 2003 or concurrent registration.
Techniques of qualitative and quantitative chemical analysis, illustrated primarily via inorganic chemical systems and their reactions.

## 2093 INTRODUCTION TO INFORMATION SCIENCE

(3-0) 3 hours credit. Prerequisites: CHE 2003 and CS 1711.
A survey of information science and its methods, the information science concept, major manual and computer-based systems, and the relevance of information science methods to physical science needs.

## 2103 ELEMENTARY ORGANIC AND BIOCHEMISTRY

(3-0) 3 hours credit. Prerequisite: CHE 2012 or consent of instructor. May not be applied to a major in Chemistry. A one semester survey of the structures and reactions of some important functional groups of organic Chemistry. The relationship of these functional groups to the Chemistry of lipids, Carbohydrates, nucleic acids and proteins.

2111 ORGANIC AND BIOCHEMISTRY LABORATORY
(0-3) 1 hour credit. Prerequisite: CHE 2103 or concurrent registration. May not be applied to a major in Chemistry. Laboratory examination of the properties of some simple organic and biological chemicals; solubility, crystallization, organic reactions, titration, enzyme action, sugars, vitamins.
2203 ORGANIC CHEMISTRY I
(3-0) 3 hours credit. Prerequisites: CHE 2003 and CHE 2012. Primarily for science majors.
An elementary study of structure, reactions, and reaction mechanisms associated with organic compounds, e.g., aliphatic and aromatic hydrocarbons, alcohols, ethers, organic halogen compounds, aldehydes, and ketones.

## 2212 ORGANIC QUALITATIVE ANALYSIS

(0-6) 2 hours credit. Prerequisite: CHE 2203 or concurrent registration. Primarily for science majors.
Determination of physical constants of organic compounds; separation methods: vacuum distillation, crystallization, column chromatography, and gas chromatography; organic elemental analysis, functional group study and qualitative analysis.

ORGANIC CHEMISTRY II
(3-0) 3 hours credit. Prerequisites: CHE 2203; CHE 2212; or concurrent registration.
Continuing study of fundamentals of structure, stereo-chemistry, reactions and reaction mechanisms of carbonyl compounds and
their derivatives; organic compounds containing nitrogen, phosphorus and sulphur; polyfunctional organic compounds; including an introduction to biochemistry. A continuation of CHE 2203.

## 3012 ORGANIC QUANTITATIVE ANALYSIS

(0-6) 2 hours credit. Prerequisite: CHE 2212; CHE 3003 or concurrent registration; or consent of instructor.
Continuing laboratory study of quantitative analysis of organic reactions, multi-step synthetic procedures, and molecular structure; qualitative and quantitative use of infrared, ultraviolet, and proton nuclear magnetic resonance spectrometry; introduction to mass spectrometry.

## 3143 MEDICINAL CHEMISTRY, PHARMACOLOGY AND FOLKLORE MEDICINE

(3-0) 3 hours credit. Prerequisites: CHE 3003 and CHE 3012. Primarily for science majors.
Lecture/seminar course which provides in-depth examination of selected examples of naturally occurring drugs (alkaloids, terpenoids, and other natural products), their sources, modes of physiological activity and active analogues.
3193 PHYSICAL CHEMISTRY FOR LIFE SCIENCES
(3-0) 3 hours credit. Prerequisites: CHE 2203, BIO 3143, BIO 3421, MAT 1213. May not be applied to a major in chemistry.
Selected topics from physical chemistry with special emphasis on biological systems and applications. Topics covered include thermodynamics, energetics, kinetics, spectroscopy, nuclear chemistry and macromolecules.
3203 PHYSICAL CHEMISTRY I
(3-0) 3 hours credit. Prerequisites: CHE 2003, CHE 2012, MAT 1223, PHY 1923, and PHY 1931; at least one semester of organic chemistry is also recommended.
States of matter, gas laws, equations of state, inter-molecular interactions; thermodynamics and physical equilibria, elements of molecular-kinetic theory and statistical mechanics; physicochemical properties of solutions, chemical equilibria, phase equilibria, and changes of state.

## 3212 PHYSICAL CHEMISTRY LABORATORY

(0-6) 2 hours credit. Prerequisite: CHE 3203.
Experimental study of thermodynamics and electrochemistry, spectroscopy, and reaction kinetics.
3223 PHYSICAL CHEMISTRY II
(3-0) 3 hours credit. Prerequisite: CHE 3203.
Chemical kinetics, electrolytes and electrochemistry, elements of quantum mechanics, chemical bonds, spectroscopy, and photochemistry. A continuation of CHE 3203.

## 3232 INSTRUMENTAL ANALYSIS

(0-6) 2 hours credit. Prerequisites: CHE 3012; CHE 3212 and CHE 3223; or concurrent registration.

Electrochemical methods; use of modern spectrometric and chromatographic instrumentation in separation, purification, and/or quantitative characterization of chemical systems.

## 3252 CHEMISTRY IN INDUSTRY

(2-0) 2 hours credit. Prerequisite: CHE 3003 and CHE 3203 or concurrent registration; or consent of instructor.
The roles and problems of chemistry and chemists in the chemical industry: laboratory and operations management; basic research and product development; production, quality control, pollution and waste materials control, and safety; advertising, sales, and patents; the governmental/industrial interface; economic considerations, employment practices, and professional societies will also be explored.

## 3333 MARINE CHEMISTRY

(3-0) 3 hours credit. Prerequisite: CHE 3003 and CHE 3203 or concurrent registration; or consent of instructor.
Fundamental concepts of marine chemistry; structure and properties of water; elemental composition of sea water, the carbonate system; marine organic chemistry; a review of marine sediments.

## 3352 MINERAL ANALYSIS

(2-0) 2 hours credit. Prerequisite: CHE 2003, CHE 2012, AS 2002, AS 2012, and concurrent registration for CHE 3361; or consent of instructor.
Theory of x-ray diffraction, spectrographic, and other methods of analysis of earth materials.
3361 MINERAL ANALYSIS LABORATORY
(0-3) 1 hour credit. Prerequisite: concurrent registration for CHE 3352 or consent of instructor.
Methods and techniques of analyzing earth materials.
3373 GEOCHEMISTRY
(3-0) 3 hours credit. Prerequisites: CHE 3003 and CHE 3203; 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.

## 3423 INFORMATION SOURCES

(3-0) 3 hours credit. Prerequisite: CHE 2093.
A survey of reference and bibliographic sources for the physical sciences: catalogs and indexing; abstracting services for books, journals, documents and technical reports; bibliographic controls of the scientific literature.

## 3953 INTRODUCTION TO RESEARCH TECHNIQUES

(1-6) 3 hours credit. Prerequisite: Upper-division standing and consent of instructor.
Practical introduction to techniques and methodology of chemical research.

## 4223 ADVANCED BIOCHEMISTRY

(3-0) 3 hours credit. Prerequisite: BIO 3513, 3521 and CHE 3003, 3012.

Chemical aspects of regulation and control mechanisms; mem-brane-related phenomena; oxidative phosphorylation and photosynthesis; transport mechanisms; contractility of muscle.

4231 PHYSICAL TECHNIQUES IN BIOCHEMISTRY
(0-3) 1 hour credit. Prerequisite: CHE 4223 or concurrent registration.
Applications of UV-visible and NMR spectroscopy, electrophoresis, gas chromatography, mass spectrometry and other physical techniques to biochemistry.

4243 ORGANIC CHEMISTRY III
(3-0) 3 hours credit. Prerequisites: CHE 3003 and CHE 3223; CHE 3203 or consent of instructor.
Advanced mechanistic and synthetic aspects of organic reactions. Molecular rearrangements, organic molecular orbital theory and its application to pericyclic reactions. A continuation of CHE 3003.

4253 PHYSICAL CHEMISTRY III
(3-0) 3 hours credit. Prerequisites: CHE 3003, CHE 3223 and CHE 3232; or consent of instructer.
Relations between structure of molecules and physico-chemical properties of gases, liquids and solids - quantum mechanical and statistico-thermodynamical approach.

## 4263 INORGANIC CHEMISTRY I

(3-0) 3 hours credit. Prerequisite: CHE 3203.
A study of the elements and their periodic properties; acid-base theory, crystalline state, coordination chemistry, non-aqueous solvents and other advanced topics.
4273 INORGANIC CHEMISTRY II
(3-0) 3 hours credit. Prerequisite: CHE 4263 or consent of instructor.
An advanced study of atomic and molecular structure, ionic crystals, metal complexes, acid-base theory and other subjects. A continuation of CHE 4263.

4282 INORGANIC PREPARATIONS
(0-6) 2 hours credit. Prerequisite: CHE 3232 or consent of instructor.
A laboratory study of coordination compounds and inorganic structure.
4293 NUCLEAR CHEMISTRY AND PHYSICS
(3-0) 3 hours credit. Prerequisites: CHE 3203 and 3223.
A study of nuclear reactions, radiation detection and measurement, and chemical applications.
4301 NUCLEAR CHEMISTRY AND PHYSICS LABORATORY (0-3) 1 hour credit. Prerequisite: CHE 4293 or concurrent registration and consent of instructor.

A laboratory study of nuclear reactions, radiation detection and measurement, and chemical applications.
4311 GLASSBLOWING
(0-3) 1 hour credit. Prerequisite: CHE 2212, CHE 3203, and consent of the instructor.
Techniques used in constructing glass scientific apparatus.
4321 CHEMICAL LITERATURE
(1-0) 1 hour credit. Prerequisite: CHE 3003 and CHE 3203.
A survey of important chemical reference works and periodicals and practice in their use.

4343 QUANTUM CHEMISTRY
(3-0) 3 hours credit. Prerequisite: MAT 3243; CHE 4253 or AS
4263 or concurrent registration with either of these; or consent of instructor.
Electronic structure of atoms and molecules, ab initio and semiempirical methods, variational and perturbational techniques, time dependent perturbations, optical transitions in atoms and molecules.
4372 EXPLORATION GEOCHEMISTRY
(2-0) 2 hours credit. Prerequisite: CHE 3373.
Principles and methods of geochemical prospecting. Trace element analysis.
4402 ABSTRACTING AND INDEXING
(2-0) 2 hours credit. Prerequisite: CHE 3423.
A survey of abstracting and indexing methods, automatic indexing technology, effectiveness of indexing; the indexing thesauri and their construction.

4413 PATENT SEARCH AND PREPARATION
(3-0) 3 hours credit. Prerequisite: CHE 3423.
National systems for patent control; retrieval of patent information in science and technology. Patentability, the legal environment, preparation of patent applications.

4503 WATER AND WASTEWATER TREATMENT
(3-0) 3 hours credit. Prerequisites: CHE 2003 and AS 4293 or consent of the instructor.
The application of chemical, biochemical, physical and mathematical processes to water treatment, wastewater treatment and pollution control. Recommended for students contemplating an engineering degree.

## 4911-3 INDEPENDENT STUDY

3 hours credit. Prerequisites: Permission in writing (form available) of the insructor, 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 needing specialized work. May be repeated for credit, but not more than 6 hours will apply to the bachelor's degree.

4923 SPECIAL PROJECT IN CHEMISTRY
3 hours credit. Prerequisite: Consent of Division Director.
A special laboratory research or library readings project resulting in a report, limited to students in their final year of undergraduate study.
4931-3 INTERNSHIP IN APPLIED CHEMICAL OPERATIONS
1-3 hours credit. Prerequisites: CHE 3252, CHE 3012, and CHE 3232 or concurrent registration; and consent of Division Director. Practical introduction to industrial and/or similar applied chemistry operations, via supervised extracollegiate internship, resulting in a report.
4953 SPECIAL STUDIES IN CHEMISTRY
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies 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.
4971 PROSEMINAR
(1-0) 1 hour credit. Prerequisite: CHE 3003 and CHE 3203.
Oral reports on current publications in chemistry and chemical technology. May be repeated for credit when topics vary, with consent of the Division Director.

## DIVISION OF MATHEMATICS, COMPUTER SCIENCE, AND SYSTEMS DESIGN

The aim of the Division of Mathematics, Computer Science, and Systems Design is to give the student a broad foundation of knowledge across the areas of mathematics, statistics, and computer science.
The Division offers a Bachelor of Science Degree in Mathematics, Computer Science, and Systems Design. Courses, in addition to those required for the degree, may be chosen so that the student's work is concentrated in the areas of mathematics, applied mathematics, statistics, computer science, systems science, process control, actuarial science, or any combination thereof.

# BACHELOR OF SCIENCE DEGREE IN MATHEMATICS, COMPUTER SCIENCE, AND SYSTEMS DESIGN 

The minimum number of semester hours required for this degree, including the 50 hours of General Education Requirements, is $126 .{ }^{55}$

All candidates for the degree must complete:
A. 47 semester hours in the major, in addition to the 4 hours of General Education Requirements in Mathematics of which 27 must be at the upper-division level. ${ }^{56}$

1. 21 semester hours of required courses are:

MAT 1213 Calculus I
MAT 1223 Calculus II
MAT 2213 Calculus III
MAT 3513 Probability and Statistics
MAT 3523 Statistical Methods
CS 1713 Introduction to Computer Science
CS 1723 Information Structures I
2. 26 additional semester hours of electives are required in the major, 21 of which must be at the upper-division level and none may be selected from courses numbered between 1000 and 1999.
B. 29 semester hours of free electives.

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# COURSE DESCRIPTIONS <br> MATHEMATICS <br> (MAT) 

1011 ALGEBRA
(1-0) 1 hour credit.
Aspects of college algebra. Includes: exponents; arithmetic and factorization of polynomials; rational expressions; negative and rational exponents; scientific notation; radicals solving linear and quadratic equations; linear inequalities; absolute values; Cartesian coordinates, distance formula, linear equations; relations, functions, graphing functions. Credit cannot be earned for both MAT 1011 and MAT 1143.
1022 FUNDAMENTALS OF CALCULUS
(2-0) 2 hours credit. Prerequisite: MAT 1011.
Derivatives of functions and their interpretations; formulas for derivatives; curve sketching using derivatives; maximum and minimum problems; exponentials and logarithmic functions and their derivatives; implicit differentiation; partial derivatives and application; anti-derivatives; indefinite integrals; integration formulas; definite integrals and application. Credit cannot be earned for both MAT 1022 and MAT 1143.
1031 APPLIED LINEAR ALGEBRA
(1-0) 1 hour credit. Prerequisite: MAT 1011.
Systems of linear equations, solution by elimination; systems of linear inequalities; introduction to linear programming, vectors and matrices, determinants, inverses of matrices, applications.
Credit cannot be earned for both MAT 1031 and CS 1054.
1051 PROBABILITY AND FINITE MATH
(1-0) 1 hour credit. Prerequisite: MAT 1011.
Events; sample spaces, partitioning the sample space; probability functions; probabilities of events; calculating probabilities, conditional probabilities and independent events; relative frequency interpretation of probability. Credit cannot be earned for both MAT 1051 and MAT 1153.
1062 STATISTICS
(2-0) 2 hours credit. Prerequisite: MAT 1051.
Relative frequency interpretation of probability and related notions such as distribution functions; random variables; expected values; descriptive statistics; some common distributions; the binomial, Poisson, normal and sampling distributions from the normal; interval estimates; tests of hypotheses. Credit cannot be earned for both MAT 1062 and MAT 1153.
1092 ELEMENTARY FUNCTIONS
(2-0) 2 hours credit. Prerequisite: MAT 1011 or the equivalent.
Polynomial and rational functions, exponential functions, logarithmic functions, trigonometric functions, functions of several variables.

## 1103 CONSUMER MATHEMATICS

(3-0) 3 hours credit.

A course designed to give the necessary mathematical tools for coping with modern technological society. Topics include linear equations and inequalities, ratios, proportion and variation, mathematics of finance.
1112 MATHEMATICS FOR ELEMENTARY EDUCATION MAJORS I
(2-0) 2 hours credit. Prerequisite: Must have a declared major of Elementary Education.
Sets, positive integers and zero, mathematical systems, negative integers, rational numbers, irrational numbers.

## 1122 MATHEMATICS FOR ELEMENTARY EDUCATION MAJORS

 II(2-0) 2 hours credit. Prerequisites: MAT 1112 and must have a declared major of Elementary Education.
The real and complex number systems.

## 1143 ALGEBRA AND CALCULUS FOR BUSINESS

(3-0) 3 hours credit.
Aspects of college algebra and calculus for business application. Includes: exponents; arithmetic and factorization of polynomials; rational expressions; negative and rational exponents; linear equations; relations; functions; graphing functions; derivatives of functions and their interpretations; formulas for derivatives; curve sketching using derivatives; maximum and minimum problems; exponentials and logarithmic functions and their derivatives; implicit differentiation; definite integrals and application. Credit may not be earned for both MAT 1011 and MAT 1143, nor can it be earned for both MAT 1022 and MAT 1143.
1153 INTRODUCTORY PROBABILITY AND STATISTICS
(3-0) 3 hours credit. Prerequisite: MAT 1011 or MAT 1143. Events, sample spaces, partitioning the sample space; probability functions; probabilities of events; calculating probabilities, conditional probabilities and independent events; relative frequency interpretation of probability. Relative frequency interpretation of probability and related notions such as distribution functions; random variables; expected values; descriptive statistics; some common distributions; the binomial, Poisson, normal and sampling distributions from the normal; interval estimates; tests of hypotheses. Credit cannot be earned for both MAT 1051 and MAT 1153 nor can it be earned for both MAT 1062 and 1153.

## 1213 CALCULUS I

(3-0) 3 hours credit. Prerequisites: MAT 1011 and MAT 1092 or the equivalents.
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.

## 1223 CALCULUS II

(3-0) 3 hours credit. Prerequisite: MAT 1213.
The Riemann integral and the fundamental theorem of calculus.

Transcendental functions, methods of integration and applications of the integral.
2013 STATISTICAL METHODS IN THE LIFE AND SOCIAL SCIENCES I
(3-0) 3 hours credit. Prerequisite: MAT 1153.
Open to students from all disciplines. Analysis of frequency data, simple linear regression, one-way analysis of variance and other simple linear models. Use of packaged programs.

## 2213 CALCULUS III

(3-0) 3 hours credit. Prerequisite: MAT 1223.
Topics in differential and integral calculus. Taylor series, power series, convergence tests, vectors, functions of several variables, partial derivatives, multiple integrals.

## 2233 MATRIX 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.

## 2923 MATHEMATICS OF FINANCE

(3-0) 3 hours of credit. Prerequisite: MAT 1153.
Theory of rates of interest, discount, present value, annuities. Determination of prices and value of mortgages, bonds, shares of stock.
3013 STATISTICAL METHODS IN THE LIFE AND SOCIAL SCIENCES II
(3-0) 3 hours credit. Prerequisites: MAT 2013 and CS 1713 or CS 1073.
An introduction to multivariate statistical methods; the multinormal distribution; tests concerning means; multivariate analysis of variance; principal components and factor analysis; use of existing computer program packages in analyzing multivariable data. Emphasis on applications and examples in the life and social sciences.
3113 ALGEBRA FOR ELEMENTARY TEACHERS
(3-0) 3 hours credit. Prerequisite: MAT 1122 and must have a declared major of Elementary Education.
Linear equations, quadratic equations, systems of equations, and inequalities.
3123 GEOMETRY FOR ELEMENTARY TEACHERS
(3-0) 3 hours credit. Prerequisite: MAT 1122 and must have a declared major of Elementary Education.
The nature of geometry from an intuitive and from a formal point of view, with applications. Topics include: congruence, measurement, parallelism, similarity.

## 3131 FUNCTIONS AND LIMITS

(1-0) 1 hour credit. Prerequisite: MAT 1011.
An in-depth study of mathematical functions incorporating the concept of the limit of a function.

## 3213 FOUNDATIONS OF ANALYSIS

(3-0) 3 hours credit. Prerequisite: MAT 2213.
A rigorous development of the foundations of real analysis; basic point set topology; limits; continuity. Emphasis on theorem proving and mathematical rigor.
3223 COMPLEX VARIABLES
(3-0) 3 hours credit. Prerequisite: MAT 2213.
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 2213.
An introduction to the concepts of modern algebra by way of the integers. Emphasis on theorem proving and mathematical rigor.

## 3243 CALCULUS FOR APPLICATIONS

(3-0) 3 hours credit. Prerequisite: MAT 2213.
Topics include: line integrals, Green's theorem, Stokes' theorem, Fourier series, Laplace transforms, complex variables.
3513 PROBABILITY AND STATISTICS
(3-0) 3 hours credit. Prerequisite or corequisite: MAT 2213. MAT 2013 recommended but not required.
Axioms of probability, probability functions and density functions, random variables, functions of random variables and their sampling distributions.
3523 STATISTICAL METHODS
(3-0) 3 hours credit. Prerequisites: MAT 3513 and CS 1713.
Methodology of applied statistics; tests for randomness and independence, simple and compound tests of hypotheses, confidence interval and point estimation, simple linear models.
3613 DIFFERENTIAL EQUATIONS I
(3-0) 3 hours credit. Prerequisite or concurrent enrollment in MAT 2213.
Basic notions of differential equations, solution of first order equations and linear equations with constant coefficients, $n^{\text {th }}$ order initial value problems, power series solutions of differential equations.
3623 DIFFERENTIAL EQUATIONS II
(3-0) 3 hours credit. Prerequisite: MAT 3613.
Continuation of MAT 3613. Topics include stability, partial differential equations and boundary value problems.
3633 NUMERICAL ANALYSIS I
(3-0) 3 hours credit. Prerequisites: MAT 2213 and CS 1713.
Solution of linear and non-linear equations, curve-fitting, eigenvalue problems.

## 3643 NUMERICAL ANALYSIS II

(3-0) 3 hours credit. Prerequisite: MAT 3633.
Numerical solution of ordinary and partial differential equations.

## 3933 MATHEMATICS OF INSURANCE

(3-0) 3 hours credit. Prerequisite: MAT 3513.
Probability theory applied to problems involving life and death, costs of life assurances, life annuities, pension, reserves.

## 4112 MATHEMATICAL TOPICS FOR ELEMENTARY TEACHERS

 (2-0) 2 hours credit. This course cannot be applied to the major in Mathematics, Computer Science, and Systems Design. Selected mathematical topics of an advanced nature relevant to the modern elementary mathematics curriculum.4123 HISTORY OF MATHEMATICS (3-0) 3 hours credit.
A survey of mathematical explorations developed through selected historical issues and biographies.

## 4213 REAL ANALYSIS I

(3-0) 3 hours credit. Prerequisite: MAT 3213.
An in-depth study of the calculus of functions of several variables. Topics include: the Berstein Polynomial Theorem, Stone-Weierstrass Theorem and the derivative in $\mathbf{R}_{\mathrm{p}}$.

## 4223 REAL ANALYSIS II

(3-0) 3 hours credit. Prerequisite: MAT 4213.
The Riemann-Stieltjes integral and related topics, which include: the bounded convergence theorem, the Riesz representation theorem and the main theorems of integral calculus in $R$ and $\mathrm{R}_{\mathrm{p}}$.
4233 MODERN ABSTRACT ALGEBRA I (3-0) 3 hours credit. Prerequisite: MAT 2213. MAT 3233 recommended.
An in-depth study of groups and rings.
4243 MODERN ABSTRACT ALGEBRA II
(3-0) 3 hours credit. Prerequisite: MAT 4233.
Topics in field theory and vector spaces.
4253 NUMBER THEORY
(3-0) 3 hours credit. Prerequisite: MAT 2213.
The theory of primes, congruences and related topics.
4263 GEOMETRY
(3-0) 3 hours credit. Prerequisite: MAT 2213
Topics in projective, affine and non-Euclidean geometry.
4273 TOPOLOGY
(3-0) 3 hours credit. Prerequisite: MAT 2213.
Set theory including cardinal and ordinal numbers. Topological properties of the real line and metric spaces.

## 4513 INTRODUCTION TO SAMPLE SURVEY THEORY AND

 METHODS.(3-0) 3 hours credit. Prerequisite: MAT 3523.
Basic tools, simple random sampling, stratified random sampling, ratio and regression estimates, systematic sampling,
cluster sampling, unequal probability sampling, two-stage and multistage sampling, non-sampling errors.

## 4523 STATISTICAL DESIGN OF EXPERIMENTS

(3-0) 3 hours credit. Prerequisite or corequisite: MAT 3523.
Concepts of randomization, replication, orthogonality, blocking, confounding, transformations; various designs such as completely randomized blocks, latin squares, balanced incomplete block, factorial and fractional factorial especially $2^{k}$ and $2^{\mathrm{k}-\mathrm{b}}$ designs.
4533 NON-PARAMETRIC STATISTICAL METHODS (3-0) 3 hours credit. Prerequisite or corequisite: MAT 3523.
A survey of non-parametric methods; order statistics, tests based on runs, goodness of fit tests, one sample, two sample and paired sample techniques, location and scale tests.
4543 INTRODUCTION TO STOCHASTIC PROCESSES
(3-0) 3 hours credit. Prerequisite: MAT 3513.
An introduction to the theory and applications of stochastic processes with emphasis on Markov processes.
4553 INTRODUCTION TO MULTIVARIATE-STATISTICAL ANALYSIS
(3-0) 3 hours credit. Prerequisites: MAT 3523 and MAT 2233. Introduction to the theory and methodology of multivariate statistics.
4563 THEORY OF RELIABILITY AND LIFE TESTING (3-0) 3 hours credit. Corequisite: MAT 3523.
Structural reliability, failure data analysis, point estimates and interval estimates for the reliability of components, sampling plans for failure data, maintenance policies, models for reliability growth.
4573 APPLIED REGRESSION ANALYSIS
(3-0) 3 hours credit. Prerequisite: MAT 2233.
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, non-linear regression.

## 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. For students needing specialized work. May be repeated for credit, but not more than 6 hours will apply to the bachelor's degree.

## 4953 SPECIAL STUDIES IN MATHEMATICS

(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies courses may be repeated for credit when the topics vary, but not more than 6 hours within any one area will apply to a bachelor's degree.

## COURSE DESCRIPTONS COMPUTER SCIENCE

(CS)
1043 INTRODUCTORY COMPUTER PROGRAMMING FOR BUSINESS APPLICATIONS
(2-2) 3 hours credit. Prerequisite: MAT 1011.
Introductory programming. Sorting and ranking; plotting; inventory control. Credit cannot be earned for both CS 1043 and CS 1054.

1054 LINEAR ALGEBRA AND PROGRAMMING FOR BUSINESS
(3-2) 4 hours credit. Prerequisite: MAT 1011 or MAT 1143.
Systems of linear equations, solution by elimination; systems of linear inequalities; introduction to linear programming, vectors and matrices, determinant, inverses of matrices, applications. Introductory programming for business applications; sorting and ranking; plotting; inventory control. Credit cannot be earned for both MAT 1031 and CS 1054 nor can credit be earned for both CS 1043 and CS 1054 or for CS 1054 and CS 1073.
1073 INTRODUCTORY COMPUTER PROGRAMMING FOR SCIENTIFIC APPLICATIONS
(2-2) 3 hours credit. Prerequisite: MAT 1011.
Introductory programming. Sorting and ranking; plotting; numerical taxonomy. Solution of non-linear equations; linear regression. Solution of linear systems.
1133 COMPUTER LITERACY
(3-0) 3 hours credit.
A survey of Computer Science designed to give a general understanding of the computer, its uses and social impact. This course is designed for students not wishing to major in Mathematics, Computer Science, and Systems Design.

## 1713 INTRODUCTION TO COMPUTER SCIENCE

 (2-2) 3 hours credit. Prerequisite: MAT 1011.Introduction to basic concepts of computer science including algorithmic processes, functional design of computers, and data representation. Both numerical and non-numerical algorithms are discussed.

## 1723 INFORMATION STRUCTURES I

(2-2) 3 hours credit. Prerequisite: CS 1713.
Theory and application of single-cell and elementary multidimensional data structures; review of set theory and introduction to boolean algebra, the propositional calculus, and list processing.

## 2003 DATA ANALYSIS

(3-0) 3 hours credit. Prerequisite: MAT 1011.
Open to students from all disciplines. Emphasis on familiarization with numerical data, student computer interaction, and visual display of data. Data analysis techniques including: stem and
leaf plotting, box plotting, fitting lines and frequencies to medians, transformations to linearity.

## 2734 COMPUTER ORGANIZATION AND PROGRAMMING SYSTEMS <br> (3-2) 4 hours credit. Prerequisite: CS 1723. <br> Representation of programs, instructions, and data in modern computers, and the basic organization of computer systems.

2743 INFORMATION STRUCTURES II
(3-0) 3 hours credit. Prerequisite: CS 1723.
Theory and application of lists, trees, and graphs.
3713 ANALYSIS OF ALGORITHMS
(3-0) 3 hours credit. Prerequisite: CS 2743.
Analysis of the performance of algorithms and discussion of programming techniques and data structures used in the writing of effective algorithms.

3723 PROGRAMMING LANGUAGES
(3-0) 3 hours credit. Prerequisite: CS 2743.
Study of the concepts and features of programming languages, with examples drawn from procedure-oriented, list-processing, string-manipulation, business-processing, and simulation programming languages.
3773 PROGRAMMING METHODOLOGY
(3-0) 3 hours credit. Prerequisite: CS 2743.
Discussion of modular (structured) programming methods, programming style and program verification techniques.
3783 DATA BASE MANAGEMENT TECHNIQUES
(3-0) 3 hours credit. Prerequisite: CS 1723.
Discussion of file structures, random access devices, file creation, file maintenance, interface languages, and data base management systems.
3793 HEURISTIC PROGRAMMING AND ARTIFICIAL INTELLIGENCE
(3-0) 3 hours credit. Prerequisite: CS 2743.
Discussion of theorem proving by machine, computational linguistics, psychological modeling and computer games.

4103 COMPUTERS AND MATHEMATICS CURRICULA
(3-0) 3 hours credit. This course cannot be applied to a major in Mathematics, Computer Science, and Systems Design.
The course, for teachers of mathematics, will focus attention on the various computer-oriented curricula, hardware and software for educators, and economic considerations for equipment acquisition.
4163 COMPUTER CONCEPTS FOR EDUCATORS, ADMINISTRATORS, AND MANAGERS
(3-0) 3 hours credit. This course cannot be applied to a major in Mathematics, Computer Science, and Systems Design.
A non-technical course emphasizing the total environment of
human-computer interaction and the general educational value of learning to program and work with computers.
4713 COMPILER DESIGN
(3-0) 3 hours credit. Prerequisite: CS 3723.
Study of techniques used in the design and implementation of compilers.
4733 SEQUENTIAL MACHINES
(3-0) 3 hours credit. Prerequisite: CS 2743 and MAT 3233 or equivalents.
Discussion of finite-state machines, finite-state automata, Kleene's theorem, pushdown automata and Turing machines.

## 4743 FORMAL THEORY OF LANGUAGES AND AUTOMATA

(3-0) 3 hours credit. Prerequisite: CS 4733.
Relationships between languages and automata, regular grammars, context-free grammars, and their significance in language and compiler design.

## 4753 FUNDAMENTALS OF OPERATING SYSTEMS

 (3-0) 3 hours credit. Prerequisite: CS 3723.Topics discussed to include multiprogramming, multiprocessing, segmentation, paging, deadlocks, semaphores, and scheduling.
4783 INFORMATION STORAGE AND RETRIEVAL (3-0) 3 hours credit. Prerequisite: CS 3783.
Discussion of methods for storage and retrieval of large scale data bases.

## 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. For students needing specialized work. May be repeated for credit, but not more than 6 hours will apply to the bachelor's degree.
4953 SPECIAL STUDIES IN COMPUTER SCIENCE
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies courses may be repeated for credit when the topics vary, but not more than 6 hours within any one area will apply to a bachelor's degree.

## COURSE DESCRIPTIONS SYSTEMS DESIGN

(SD)

## 2815 DIGITAL CIRCUITS DESIGN I

(3-4) 5 hours credit. Prerequisite: CS 1723.
An introduction to moderm integrated digital computer circuits.

Basics of DTL, TTL, and MOS technologies. Hardware realizations of logical equations. Implementation of digital arithmetic.

## 2835 DIGITAL CIRCUITS DESIGN II

(3-4) 5 hours credit. Prerequisite: SD 2815.
Design of synchronous sequential circuits. State minimization techniques. Design of small synchronous processor.
2853 DATA ACQUISITION
(2-2) 3 hours credit. Prerequisite: CS 1713.
Operating characteristics of digital-to-analog and analog-todigital converters. Programming techniques used to interface a minicomputer to scientific laboratory instrumentation.
2873 REAL-TIME PROCESS CONTROL
(2-2) 3 hours credit. Prerequisite: SD 2853.
Operating principles of real-time disk operating systems for minicomputers. Programming techniques for on-line interactive data acquisition, monitoring, and process control applications.
3843 MINICOMPUTER SYSTEMS ARCHITECTURE
(3-0) 3 hours credit. Prerequisite: SD 2835.
A presentation of the hardware organization and systems architecture of state-of-the-art minicomputer systems. Topics include instruction decoding and central processor organization, memory organization, floating-point processor organization, input/output functions and direct memory access, writable control store organization and micro-programming.
3853 INSTRUMENTATION CIRCUITS DESIGN
(3-0) 3 hours credit. Prerequisites: SD 2815, SD 2853, PHY 1923. Functional characteristics of state-of-the-art integrated operational amplifiers, regulated power supplies, digital-to-analog and analog-to-digital converters, isolation amplifiers, serial transmitters, design of hardware configurations to interface scientific and industrial instrumentation to a minicomputer.

## 3863 REAL-TIME OPERATING SYSTEMS FOR MINI-

 COMPUTERS(3-0) 3 hours credit. Prerequisites: SD 3843 and SD 2873.
A study in the design of real-time operating systems for minicomputers. Memory management. Task scheduling in a multitask environment, input/output scheduling, and spooling.
3873 ANALOG SIMULATION
(2-2) 3 hours credit. Prerequisite: MAT 1223.
Operational amplifier principles, summers, integrators, multipliers, magnitude and time scaling, the inverse function principle for operational amplifiers. Techniques for simulation of mechanical, electrical, and biological systems.
4613 OPERATIONS RESEARCH I
(3-0) 3 hours credit. Prerequisite: MAT 2213.
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. Introduction to dynamic programming.

## 4623 OPERATIONS RESEARCH II

(3-0) 3 hours credit. Prerequisite: MAT 3513 or equivalent. Introduction to probabilistic analysis and models in operations research. Decision analysis, Markov chains, queueing models.

## 4633 SIMULATION

(3-0) 3 hours credit. Prerequisite or corequisite: SD 4623.
Construction and use of simulation models on a digital computer. Monte Carlo techniques and associated statistical methods.
4643 SYSTEMS DESIGN LABORATORY
(0-6) 3 hours credit. Prerequisite or corequisite: SD 4623.
A project oriented course designed to give students experience in applying system analysis and design procedures. Subject matter may include development, evaluation and implementation of models for socio-technical systems, such as health care systems, water resource systems, and urban systems. Activities include written project proposal and technical report. May be repeated for credit. Not more than 6 hours can be counted for a degree.

## 4803 MICROPROCESSOR LABORATORY I

(0-6) 3 hours credit. Prerequisite: SD 3843.
Principles of large-scale integration. Organization and systems architecture of state-of-the-art microprocessors. Large scale integration of random access memory and programmable readonly memory. Assemblers, compilers, and operating systems for microprocessors.

## 4813 MICROPROCESSOR LABORATORY II

(0-6) 3 hours credit. Prerequisite: SD 4803.
Students execute projects dealing with the design and implementation of microprocessor software for selected applications in the area of process control.
4823 SYSTEM ANALYSIS
(3-0) 3 hours credit. Prerequisite: MAT 2213.
Mathematical concepts relevant to the formulation of models for physical systems. Initial value problems. Laplace transforms and the concept of transfer function. Detailed analysis of simple control systems for position and velocity teaching. Stability. The course deals mainly with linear systems.
4833 OPTIMAL CONTROL
(3-0) 3 hours credit. Prerequisite: SD 4823.
Stability and Liapunov's method. Formulation of state equations for continuous and discrete systems. Formulation of the optimal control problem. Pontryagin's maximum principle. Dynamic programming; adaptive control systems.
4853 COMPUTER INTERFACES
(3-0) 3 hours credit. Prerequisite: SD 4803.
Basic characteristics and design considerations of printer, tape,
disk controllers, multiplexers and other devices for computer communications and teleprocessing.
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. For students needing specialized work. May be repeated for credit, but not more than 6 hours will apply to the bachelor's degree.
4953 SPECIAL STUDIES IN SYSTEMS DESIGN (3-0) 3 hours credit. Prerequisite: Consent of instructor. An organized course offering specialized study not normally or not often available as part of the regular course offerings. Special Studies courses may be repeated for credit when topics vary, but not more than 6 hours within any one area will apply to a bachelor's degree.

Appendix

## A.

## BORROWING AND FINE REGULATIONS OF THE JOHN PEACE LIBRARY

Qualified borrowers are of three types: general, special, and limited borrowers.

General Borrowers:
(1) Enrolled students at UTSA, UTHSC, UT Nursing School at San Antonio, and
(2) Members of the UTSA non-professional staff. Students auditing only must secure a Limited Borrower's Card if they wish to borrow books.

Special Borrowers:
(1) Members of the Board of Regents of The University of of Texas System;
(2) Members of the administration, faculty and professional staff of The University of Texas System;
(3) Members of the UTSA Associates and The University of Texas at San Antonio Development Board; and
(4) Members of the professional staff of the Southwest Research Consortium.

Limited Borrowers:
(1) Faculty of institutions belonging to CORAL;
(2) Students of institutions belonging to CORAL and holding a valid CORAL checkout card; and
(3) Holders of a Limited Borrower's Card.

The UTSA Library is open to the public for consultation. By depositing $\$ 15.00$ a Texas resident may obtain a Limited Borrower's Card for borrowing unrestricted materials in person; this deposit is also required of non-students who are auditing UTSA courses. The fee is waived for retired UT System faculty and professional staff, but all limited borrowers, except faculty of institutions belonging to CORAL, must obtain a card for identification purposes. Persons holding a Limited Borrower's Card are charged a fee of $\$ 2.00$ (plus copying costs, if any) for each inter-library loan request.

Fines are charged for materials that are overdue, lost, or damaged.

Fines for Overdue Materials:
Borrowers are subject to the following fines for failing to return materials on or before the due date. All fines are to be paid at the Circulation Desk. Students with outstanding fines have a hold placed on their records and are not allowed to register again until the fines have been paid. Faculty and staff may have paychecks withheld until fines have been paid.
A. Two-hour materials - $\$ .25$ per hour or fraction thereof per item. Maximum accumulation of $\$ 10.00$ per item.
B. Two-day materials - $\$ 1.00$ per day or fraction thereof per item up to a maximum accumulation of $\$ 10.00$ per item.
C. One-week and two-week materials $-\$ .05$ per day or fraction thereof per item for the first seven days and $\$ .25$ per day thereafter to a maximum accumulation of $\$ 10.00$ per item.
D. Books recalled for reserve or for use by another borrower - $\$ 1.00$ per day or fraction thereof, commencing with the fifth calendar day after recall notice is mailed.
Fines for Loss or Damage:
All borrowers are charged for lost items. The charge for the item is the retail price listed in Books in Print or if the price is not available there, the charge is $\$ .05$ per page plus $\$ 2.25$ for binding (based on University Microfilms Books on Demand charges). If the item has been damaged rather than lost and the material is repairable, a suitable assessment for repairs is made.

Whenever an item is presumed by the library to be lost, borrowers are liable for a processing fee of $\$ 3.00$.

Fines accumulate until the time at which the item is reported or presumed lost. Items are presumed by the library to be lost when no response is made to the second overdue or recall notice.

## B.

## PREPROFESSIONAL COURSES OF STUDY IN LAW AND THE HEALTH FIELDS

The University of Texas at San Antonio does not offer specific prelaw, premedical, predental or prenursing programs; rather students select courses of study in preparation for admission to law, medical, dental, and nursing schools in terms of individual preferences and in terms of specific program requirements of individual professional schools.

The semester hour and grade requirements set forth below are minimum requirements, and satisfaction of these requirements does not assure admission to any such professional schools, since application for admission far exceed spaces available.

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 UT San Antonio's Prelaw Advisory Committee. Information on the procedures for admission to law schools and the Law School Admissions Test (LSAT) is also available from the committee. Appointments to consult with members of the committee may be made though the Office of the Division of Social Sciences.

Preparation for medical school. In general, medical school admission committees do not state a preference about an undergraduate major field, leaving the student free to choose, after conferences with his or her advisor, a degree program suited to the student's special abilities and interests.
Admission requirements for The University of Texas Medical Schools are representative of admission requirements for most
other American medical schools. A minimum of 90 semester hours of college work is required including six semester hours of college English; two years of college biology (one year may be completed by examination for advanced standing, but one year must be completed in residence at a college and must include formal laboratory work); one-half year of college calculus; one year of college physics for science majors; two years of college chemistry (one year of general chemistry and one year of organic chemistry as required for science majors, each year to include the corresponding laboratory experience). A grade of "C" or better is required in these courses. All students are required to take the Medical College Admissions Test (MCAT). For specific requirements for admission to other medical schools, students should read the current edition of Admission Requirements of Medical Colleges, available in the Office of the Division of Allied Health and Life Science at UT San Antonio.

Preparation for dental school. Admission requirements for The University of Texas Dental Schools are also representative of admission requirements for most other American dental schools. A minimum of 60 semester hours of successfully completed college credit is required. These requirements are as follows: six semester hours of college English, two years of biology (one year may be completed by examination for advanced standing, but one year must be completed in residence at a college and must include formal laboratory work); one year of physics as required for science majors; two years of chemistry (one year of general chemistry, and one year of organic chemistry as required for science majors, each year to include the corresponding laboratory experience). All students are required to take the Dental Aptitude Test (DAT). For specific requirements for admission to other dental schools the student should read the current edition of Admission Requirements for American Dental Schools and the catalogs of the various dental schools, also available in the Office of the Division of Allied Health and Life Sciences.

Additional information on preprofessional courses of study in medicine and dentistry can be obtained at the Office of the Division of Allied Health and Life Sciences and through the Chairman of the Health Related Professions Advisory committee at UT San Antonio.

Preparation for nursing school. Admission requirements for The University of Texas System School of Nursing are likewise representative of admission requirements for most other American nursing schools. A minimum of 60 semester hours of college work from an accredited college or university 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.

An overall minimum grade-point average of 2.0 is necessary. At least 2.0 is necessary in all required courses. For specific requirements for admission to other nursing schools, students should contact the School of Nursing in question. For admission to the UT School of Nursing at San Antonio, students should contact the Admission Office of the Health Science Center at San Antonio.

## RULES AND REGULATIONS FOR DETERMINING RESIDENCE STATUS

A student entering The University of Texas at San Antonio for the first time, or a student re-entering The University after an absence of more than one semester, should carefully read the rules governing the determination of residence, as stated below, so that he may be prepared, in the event of his classification as a nonresident of Texas, to pay the required tuition fee. This fee must be paid at the time of registration.

Chapter 54, Subtitle A, Title 3 of the Texas Education Code sets forth the regulations governing nonresident students in institutions of senior collegiate rank, effective January 20, 1973.

## I. Minors*

Statute: Section 54.052(b) An individual, under twenty-one (21) years of age, who is living away from his family, and whose family resides in another state or has not resided in Texas for the 12 -month period immediately preceding the date of registration shall be classified as a nonresident student;

Section 54.052(c) An individual, twenty-one (21) years of age or under, whose family has not resided in Texas for the 12-month period immediately preceding the date of registration shall be classified as a nonresident student regardless of whether he has become the legal ward of residents of Texas or has been adopted by residents of Texas while he is attending an educational institution in Texas, or within a 12-month period before his attendance, or under circumstances indicating that the guardianship or adoption was for the purpose of obtaining status as a resident student;

Section 54.055 An individual, 21 years of age or under, whose parents were formerly residents of Texas is entitled to pay the resident tuition fee following the parents' change of legal residence to another state, as long as the individual remains continuously enrolled in a regular session in a state-supported institution of higher education.

## A. Death or Divorce of Parents

The legal residence of a minor under 21 years of age is usually that of the father. Upon the death of the father, the legal residence of the minor is that of the mother. Upon divorce or legal separation of the parents, the residence of the minor is determined by the residence of the parent with whom the minor is making his home at the time of registration.

## B. Custody by Court Order

If the custody of the minor has been granted by court order (e.g., divorce decree, child custody action, guardianship or adoption proceedings) to some person other than the parent, the residence of that person shall control; provided, however, that such grant of custody was not ordered during or within a year prior to the minor's enrollment in an institution of higher education (defined as any public junior college, public senior college or university, medical or dental unit or other agency of higher education) and was granted under circumstances indicating that such guardianship was not for the purpose of obtaining status as a resident student.

If the minor is not making his home with either parent, and there is no court-appointed guardian, the residence of the parent with whom the minor last resided shall be presumed to control. If, however, the minor has made his home with, and has been dependent upon a grandparent for more than a year prior to enrollment in an institution of higher education, the residence of that natural guardian shall be regarded as his residence. The residence of a person other than a parent or a natural or legal guardian, who may furnish funds for payment of tuition, fees, or living expenses shall in no way affect the residence classification of a minor.

[^74]
## C. Abandoned Child

In the case of an abandoned child, the residence of a person who has stood in loco parentis for a period of time may determine the residence of such abandoned child. The fact of abandonment must be clearly established and must not have been for the purpose of affecting the residence of the minor, and the minor must have actually resided in the home of such person for two years immediately prior to registering in an institution of higher education in Texas and such person must have provided substantially all of the minor's support. In the event that the in loco parentis relationship has not existed for the full two year period, a lesser period of time is acceptable in unusual hardship cases, such as death of both parents.

## D. Orphan

An orphan who has lived for longer than a year in an established orphan's home in Texas operated by a fraternal, religious, or civic organization and has been graduated from the orphan's home shall be considered a resident of Texas provided such orphan remains in Texas from the time of such graduation until he enters an institution of higher education.

## E. Emancipated Child

Under certain circumstances, a minor may become emancipated or freed from parental control. If the minor's parents have ceased to exercise parental control and responsibility, if the minor is responsible for all of his or her own decisions and affairs, and if the minor is financially independent of parents, the minor may establish emancipation. A minor is financially independent if he or she receives less than $\$ 600$ a year from parents, and if the parents do not claim the minor as a dependent. If emancipation is clearly proven, the residence classification of the minor is determined by the residence of the minor rather than the residence of the parents, and after 12 months in Texas under such circumstances, the minor may be classified as a resident, if he or she otherwise satisfies the statutory requirements applicable to those over 21 (e.g., see presumption arising from residence while a student). Proof of emancipation is the responsibility of the minor.

## F. Married Minors

A minor who is married shall have the power and capacity of a single person of full age and is entitled to select his or her own place of legal residence. After 12 months' residence in Texas under such circumstances, the minor may be classified as a resident if he or she otherwise satisfies the statutory requirements applicable to those over 21 years of age. The residence classification for tuition purposes of a nonresident who marries a Texas resident shall be governed by the provisions of the tuition statute (Texas Education Code, S 54.056) and of these rules and regulations as hereinafter set out.

## G. Minors Whose Parents Moved to Another State or Foreign Country

If the parents of a minor who is enrolled as a resident student move their legal residence to another state or foreign country, on or after August 15, 1971, the minor shall be classified as a nonresident at all subsequent registration periods. Under the provisions of Section 54.055, the minor will be entitled to pay the resident tuition fee as long as he remains continuously enrolled in a regular session in a public institution of higher education. The minor student must re-enroll for the next available regular semester immediately following the parents' change of legal residence to another state.
If the parents of a minor move to another state or foreign country, or reside outside the state or in a foreign country at the time of enrolling in an institution of higher education, but claim legal residence in Texas, conclusive evidence must be presented that the father is still claiming legal residence in the State of Texas and that he has the present intent to return to the state. A certificate from the employer of the parents that the move outside the state was temporary and that there are definite plans to return the parents to Texas by a determinable future date may be considered in this connection.

If a minor whose parents have moved their legal residence to another state or foreign country resides in Texas for 12 consecutive months following his or her 21st birthday whose actions clearly indicate intention to establish permanent residence in the state, the minor may be classified as a resident student
effective with the beginning of the term or semester following his or her 22nd** birthday despite the fact the minor's entire period of residence in Texas has been as a student.

When the parents of a minor who have established their legal residence in another state or foreign country return and reestabish their legal residence in Texas, the minor must be classified as a nonresident until the first registration after the parents have resided in the state for a 12 -month period following their return.

## II. Residence of Individuals Over Twenty-One

Statute: Section 54.052(d) An individual, twenty-one (21) years of age or over, who has come from outside Texas and who is gainfully employed in Texas for a 12 -month period immediately preceding registration in an educational institution shall be classified as a resident student as long as he continues to maintain a legal residence in Texas; and

Section 54.052(e) An individual, twenty-one (21) years of age or over, who resides out of the state or who has come from outside Texas and who registers in an educational institution before having resided in Texas for a 12-month period shall be classified as a nonresident student.

Section 54.054 A nonresident student classification is presumed to be correct as long as the residence of the individual in the state is primarily for the purpose of attending an educational institution. After residing in Texas for at least twelve (12) months, a nonresident student may be reclassified as a resident student as provided in the rules and regulations adopted by the Coordinating Board, Texas College and University System. Any individual reclassified as a resident student is entitled to pay the tuition fee for a resident of Texas at any subsequent registration as long as he continues to maintain his legal residence in Texas.

## Establishment of Residence

Any individual 21 years of age or over who moves into the state

[^75]and who is gainfully employed within the state for a period of 12 months prior to enrolling in an educational institution (defined as any institution of higher education, public or private, above the high school level), is entitled to classification as a resident. If such 12 months' residence, however, can be shown not to have been for the purpose of establishing legal residence in the state but to have been for some other purpose, the individual is not entitled to be classified as a resident. Any student registering in an educational institution prior to having resided in the state for 12 months immediately preceding registration shall be classified as a nonresident for tuition purposes.
A person classified as a nonresident student upon his first enrollment in an institution of higher education is presumed to be a nonresident for the period during which he or she continues as a student. If such nonresident student withdraws from school and resides in the state while gainfully employed for a period of 12 months, upon re-entry into an institution of higher education the student will be entitled to be reclassified as a resident for tuition purposes. Accumulations of summer and other vacation periods do not satisfy this requirement. Reclassification to residence status after residing in the state for 12 months cannot be based solely upon the student's or the student's spouse's employment, registration to vote, registration of a motor vehicle and payment of personal property taxes thereon, or the securing of a Texas driver's license. The presumption of a "nonresident" is not a conclusive presumption, however, and other facts may be considered to determine if the presumption has been overcome. Material to this determination is business or personal facts or actions unequivocally indicative of fixed intention to reside permanently in the state. Such facts may include, but are not limited to, the length of residence and full-time employment prior to registering in the institution, the fact of the full-time employment and the nature of such employment (regular industrial, business or professional employment as distinguished from student-type employment) while a student, purchase of a homestead with substantial downpayment, dependency upon a parent or guardian who has resided in Texas for at least 12 months immediately preceding the student's registration, and marriage to a resident of Texas. All of these facts are weighed in the light of the fact that a student's residence while in school is primarily for the purpose of education and not to establish residence, and that decisions of
an individual as to residence are generally made after the completion of an education and not before.

## III. Married Students

Statute: Section 54.056 A nonresident who marries and remains married to a resident of Texas, classified as such under this Act at the time of the marriage and at the time the nonresident registers, is entitled to pay the resident tuition fee regardless of the length of time he has lived in Texas, and any student who is a resident of Texas who marries a nonresident is entitled to pay the resident tuition fee as long as he does not adopt the legal residence of the spouse in another state.

## Nonresident Who Marries a Resident of Texas

The nonresident male or female student who marries a resident of Texas is entitled to pay the resident tuition at the registration period next following the date of marriage upon submission of evidence of such marriage and of the spouse's legal residence in Texas. Such marriage evidence is a certified copy of the marriage license or other certified documentary evidence of marriage as filed with the county clerk. The legal residence of a husband and wife are normally presumed to be the same; however, it is possible for either the husband or wife to establish a residence different from the other spouse. In such a situation, the normal standards are followed. (See II.) In the event a nonresident student marries a resident of Texas and subsequently is divorced within 12 months, such nonresident student shall be classified as a nonresident for all enrollment periods subsequent to the date of such divorce; provided, however, the nonresident may establish Texas residence pursuant to normal standards. (See II.)

## IV. Military Personnel and Veterans

Statute: Section 54.058(a) Military personnel are classified as provided by this section in the following manner:
(b) An officer, enlisted man or woman, selectee or draftee of the Army, Army Reserve, Army National Guard, Air National Guard, Texas State Guard, Air Force, Air Force Reserve, Navy, Navy Reserve, Marine Corps, Marine Corps Reserve, Coast Guard, orCoast Guard Reserve of the United States, who
is assigned to duty in Texas is entitled to register himself, his spouse, and their children in a state institution of higher education by paying the tuition fee and other fees or charges required of Texas residents, without regard to the length of time he has been assigned to duty or resided within the state. However, out-of-state Army National Guard or Air National Guard members attending training with Texas Army or Air National Guard members under National Guard Bureau regulations may not be exempted from nonresident tuition by virtue of that training status nor may out-of-state Army, Air Force, Navy, Marine Corps, or Coast Guard Reserves training with units in Texas under similar regulations be exempted from nonresident tuition by virtue of such training status. It is the intent of the legislature that only those members of the Army or Air National Guard, Texas State Guard, or other reserve forces mentioned above to be exempted from the nonresident tuition fee and other fees and charges only when they become members of Texas units of the military organizations mentioned above.
(c) As long as they reside continuously in Texas, the spouse and children of a member of the Armed Forces of the United States who has been assigned to duty elsewhere immediately following assignment to duty in Texas are entitled to pay the tuition fees and other fees or charges provided for Texas residents.
(d) If nonresident military personnel are attending an institution of higher education under a contract between the institution and any branch of the Armed Forces of the United States, in which the tuition of the member of the military is paid in full by the United States Government, the student shall pay the nonresident tuition fee;***
(e) A Texas institution of higher education may charge to the United States Government the nonresident tuition fee for a veteran enrolled under the provisions of a Federal law or regulation authorizing educational or training benefits for veterans;
(f) The spouse and children of a member of the Armed Forces of the United States who dies or is killed are entitled to pay the

[^76]resident tuition fee, if the wife and children become residents of Texas within 60 days of the date of death; and
(g) If a member of the Armed Forces of the United States is stationed outside Texas and his spouse and children establish residence in Texas by residing in Texas and by filing with the Texas institution of higher education at which they plan to register a letter of intent to establish residence in Texas, the institution of higher education shall permit the spouse and children to pay the tuition, fees and other charges provided for Texas residents without regard to length of time that they have resided within the State.

## A. Certification of Assignment to Duty in Texas

Subsection (b) provides that military personnel assigned to duty within the State of Texas, their husband or wife as the case may be and their dependent children, shall be entitled to pay the same tuition as a resident of Texas regardless of the length of their physical presence in the state. To be entitled to pay the resident tuition fees, such military personnel shall submit at the time of each registration a statement from their commanding officer or personnel officer certifying that they are then assigned to duty in Texas and that same will be in effect at the time of such registration in an institution of higher education. This subsection also provides that a nonresident member of an out-of-state National Guard unit who is temporarily training with a Texas National Guard unit will not be entitled to pay the resident tuition.

## B. Spouse and Children of Member of Armed Services

Subsection (c) provides that the spouse and dependent children of a member of the armed forces assigned to duty outside the State of Texas immediately after assignment in Texas may be entitled to pay the resident tuition as long as they reside continuously in Texas.
Subsection (g) provides that the spouse and dependent children of a member of the armed forces who is assigned to duty outside the State of Texas may be entitled to pay the resident tuition if they reside in Texas and file with the institution of higher education at which a child or spouse plans to register a letter of intent, an affidavit or other evidence satisfactory to the
institution stating they intend to become permanent residents of Texas.

Subsection (f) provides that a member of the immediate family (which shall include spouse or dependent children) of a member of the armed forces who dies or is killed in action while in military service may qualify to pay the resident tuition if they become residents of Texas within 60 days of the date of death. To qualify under this provision, the student shall submit to the institution of higher education satisfactory evidence establishing the date of death and residence in Texas.

The military personnel spouse and dependent children enumerated in (b), (c), (f), and (g) are classified as nonresidents but shall be entitled to pay the resident tuition regardless of their length of residence in Texas if they comply with the provisions of the statute and these rules and regulations.

## C. Nonresidents Attending College Under Federal Benefits Programs for Veterans

Subsection (e) provides that the institution of higher education may charge the nonresident tuition fee for a nonresident veteran to the United States Government under the provisions of any federal law or regulation authorizing educational or training benefits for veterans.

## D. Legal Residence of Person in Military Service

A person in military service is presumed to maintain during his or her entire period of active service the same legal residence which was in effect at the time of entering military service. A person stationed in a state on military service is presumed not to estabish a legal residence in that state because his or her presence is not voluntary but under military orders. It is possible for a member of the military service to abandon his domicile of original entry into the service and to select another, but to show establishment of a new domicile during the term of active service, there must be clear and unequivocal proof of such intent. An extended period of service alone is not suffic-
ient. The purchase of residential property is not conclusive evidence unless coupled with other facts indicating an intent to put down roots in the community and to reside there after termination of military service. Evidence which will be considered in determining this requisite intent includes, but is not limited to a substantial investment in a residence and the claiming of a homestead exemption thereon, registration to vote, and voting in local elections, registration of an automobile in Texas and payment of personal property taxes thereon, obtaining a Texas driver's license, maintaining checking accounts, savings accounts, and safety deposit boxes in Texas banks, existence of wills or other legal documents indicating residence in Texas, change of home-of-record and designation of Texas as the place of legal residence for income tax purposes on military personnel records, business transactions or activities not normally engaged in by military personnel, membership in professional or other state organizations, and marriage to a resident of Texas. Purchase of property during terminal years of military service preceding retirement generally is given greater weight than a similar purchase made prior to such terminal period.

## E. Residence Classification of Veterans Upon Separation from Military Service

A person who enrolls in an institution of higher education following separation from military service must be classified as a nonresident student unless, (1) the individual was a legal resident of Texas at the time of entry into military service and has not relinquished that residence, (2) the individual can prove that during military service he or she has, in fact, established a bona fide, legal residence in Texas at a time at least 12 months prior to registration, or (3) the individual has resided in Texas other than as a student for 12 months prior to registration and subsequent to discharge from service. The nonresident classification is a presumption, however, which can be overcome pursuant to the guidelines and standards for establishing Texas residence.(See II.)

## V. Employees of Institutions of Higher Education Other Than Students

Statute: Section 54.059 A teacher, professor, or other employees of a Texas institution of higher education is entitled to register himself, his spouse, and their children in a state institution of higher education by paying the tuition fee and other fees or charges required for Texas residents without regard to the length of time he has resided in Texas. A teacher, professor, or other employee of a Texas institution of higher education is any person employed at least one-half time on a regular monthly salary basis by a state institution of higher education.

A person employed at least half-time on a regular monthly salary basis (not an hourly employee) by any public institution of higher education, with an effective date of employment on the 12th class day of a regular semester or the 4th class day of a summer term, may pay the same tuition as a resident of Texas for self, husband or wife as the case may be and their children, regardless of the length of residence in the state. To be entitled to pay the resident tuition fees such employee must submit prior to the time of each registration a statement certifying employment from the Director of Personnel or a designated representative of the institution of higher education by which he is employed.

## VI. Student Employees

Statute: Section 54.051(o) A teaching assistant, research assistant, or other student employee of any institution covered by this section is entitled to register himself, his spouse, and their children in a state institution of higher education by paying the tuition fees and other fees or charges required for Texas residents, without regard to the length of time he had resided in Texas; provided that said student employee is employed at least one-half time in a position which relates to his degree program under rules and regulations established by the employer institution. This exemption shall continue for students employed two consecutive semesters through the summer session following such employment if the institution is unable to provide employment and, as determined under standards established by the institution, if the employee has satisfactorily completed his employment.

A student employed at least half-time by any public institution of higher education in a degree program related position, with an effective date of employment on or before the 12th class day of a regular semester, or the 4 th class day of a summer term, may pay the same tuition as a resident of Texas for him or herself, spouse, and their children regardless of the length of residence in the state. The institution which employs the student shall determine whether or not the student's job relates to his or her degree program. If a student is employed by an institution of higher education for consecutive Fall and Spring semesters and he was further eligible to pay the tuition charged to Texas residents during those Fall and Spring semesters because of the provisions of this subsection, then the student may continue to pay the resident tuition rate during the summer session following the Spring employment if the institution is unable to provide employment and if the student's employment was satisfactorily completed.

## VII. Competitive Scholarships

Statute: Section 54.051(p) A student who holds a competitive scholarship of at least $\$ 200$ for the academic year or summer for which he is enrolled and who is either a nonresident or a citizen of a country other than the United States of America is entitled to pay the fees and charges required of Texas residents without regard to the length of time he has resided in Texas, provided that he must compete with other students, including Texas residents, for the scholarship and that the scholarship must be awarded by a scholarship committee officially recognized by the administration of the institution of higher education. ${ }^{* * * *}$

An official scholarship committee or committees of a public institution of higher education may award competitive scholarships in amounts of $\$ 200$ or more for the academic year, the summer session or both. If a nonresident or foreign student, in competition with other students, including Texas residents, obtains one of these competitive scholarships, the student may pay the same tuition as a resident of Texas during the registra-

[^77]tion period in which the scholarship is in effect. The student must present a statement from the official scholarship committee certifying the period of time during which the scholarship will be in effect.****

## VIII. Reciprocity Clause Applicable to Junior Colleges, Upper Level Institutions

Statute: Section 54.060 Resident of Bordering State: Tuition. The nonresident tuition fee prescribed in this chapter does not apply to a nonresident student who is a resident of a state situated adjacent to Texas and who registers in any Texas public junior college situated in a county immediately adjacent to the state in which the nonresident student resides. The nonresident junior college student described in this section shall pay an amount equivalent to the amount charged a Texas student registered at a similar school in the state in which the nonresident student resides. The nonresident student described in this section shall pay equivalent fees and charges to those charged Texas students registered at a similar institution in the state in which the nonresident student resides, when such student registers at a Texas public senior upper level (those institutions offering only junior, senior, and graduate level programs) institution of higher education located within the Texas public junior college district from which the nonresident student has graduated or completed 45 semester credit hours.

A nonresident, who is a resident of a state of the United States bordering Texas, is entitled to pay Texas resident rates upon registering in any Texas public junior college if the district of such college includes any part of a county that is immediately adjacent to the state in which the nonresident resides, providing that Texas residents are entitled to pay in-state fees and charges at a similar school in the bordering state.

The nonresident student described in this rule shall be entitled to pay Texas resident rates at a Texas public senior upper level institution of higher education (those institutions offering only junior, senior and graduate level programs) which is located within the Texas public junior college district from which the nonresident student has graduated or completed 45 semester credit hours, provided that a Texas resident is entitled to pay in-state fees and charges at a similar institution in the bordering state.

## IX. Citizens of Any Country Other Than the United States of America

Statute: Section 54.057 An alien who is living in this country under a visa permitting permanent residence or who has filed with the proper Federal immigration authorities a declaration of intention to become a citizen has the same privilege of qualifying for resident status for fee purposes under this Act as has a citizen of the United States. A resident alien residing in a junior college district located immediately adjacent to Texas boundary lines shall be charged the resident tuition by that junior college.

An alien living in the United States under a visa permitting permanent residence, or one who has filed with the proper Federal authorities a declaration of intention to become a citizen, has the same privilege of qualifying for Texas resident status for tuition purposes as has a citizen of the United States.

Statute: Section 54.051(h) Tuition for students who are citizens of any country other than the United States of America is the same as tuition required of other nonresident students. However, the governing board of an institution of higher education may set a lower fee for a foreign student, based on financial need, as authorized by rules and policies of the Coordinating Board, Texas College and University System. The lower fee in any case shall be not less than $\$ 14$ per semester credit hour, and the total of such charge shall be not less than $\$ 200$ per semester or 12 -week summer session, and not less than $\$ 100$ per 6 -week summer term. However, if a student is a citizen of a country that charges citizens of the United States tuition at publicly funded colleges and universities in an amount which is equal to or less than $\$ 200$ per semester or 12-week summer session or comparable period, or $\$ 100$ per 6 -week summer term or comparable period, as determined by the Coordinating Board, Texas College and University System, the student shall be charged $\$ 14$ per semester credit hour, but not less than $\$ 200$ per semester or 12 -week summer session nor less than $\$ 100$ per six-week summer term .*****

[^78]Statute: Section 54.051(i) Tuition for students who are citizens of any country other than the United States of America registered in a medical or dental branch, school or college is the same as tuition required of other nonresident students. However, the governing board of an institution of higher education may set a lower fee for a foreign student, based on financial need, as authorized by rules and policies of the Coordinating Board, Texas College and University System. The lower fee in any case may not be less than $\$ 800$ per academic year of 12 months. However, if a student is a citizen of a country that charges citizens of the United States in an amount which is equal to or less than $\$ 800$ per academic year of 12 months or comparable period, as determined by the Coordinating Board, Texas College and University System, the student shall be charged $\$ 800$ per academic year of 12 months. *

The governing boards of institutions of higher education may establish lower tuition fees for certain foreign students than those charged to other nonresident students. If lower fees are established, such lower fees must be based upon the financial need of the individual foreign student. Procedures for determining the financial need of a foreign student are the same as those procedures established by the Coordinating Board for determining the financial need of applicants for Hinson-Hazlewood College Student Loans. In no event may such lower tuition fees be less than $\$ 14$ per semester credit hour and the total of such tuition charge shall not be less than $\$ 200$ per semester or 12 -week summer session and not less than $\$ 100$ per 6 -week summer term. Tuition fees for foreign students registered in a medical or dental branch, school or college shall not be less than $\$ 800$ per academic year of 12 months.

Foreign students who are citizens of a country in which tuition charges for citizens of the United States at publicly funded colleges and universities in that country are equal to or less than $\$ 200$ per semester or 12 -week summer session or comparable period of $\$ 100$ per 6 -week summer term or comparable period, except as otherwise hereinafter provided, shall be charged $\$ 14$ per semester credit hour but not less than $\$ 200$ per semester

[^79]or 12 -week summer session nor less than $\$ 100$ per 6 -week summer term.

Foreign students registered in a medical or dental branch, who are citizens of a country in which tuition charges at a publicly funded medical or dental branch, school or college are equal to or less than $\$ 800$ per academic year of 12 months or comparable period, shall be charged $\$ 800$ per 12 -month academic year.

The Coordinating Board, Texas College and University System shall periodically certify to the chief executive officer of institutions of higher education the names of countries whose citizens will qualify for the tuition fee set forth in the above two paragraphs.*

## X. Student Responsibilities

## A. Student Responsibility to Register Under Proper Classification

The responsibility of registering under the proper residence classification is that of the student. If there is any question as to right to classification as resident of Texas, it is the student's obligation, prior to or at the time of his registration, to raise the question with the administrative officials of the institution in which he or she is registering and have such officially determined.

## B. Notification Upon Becoming A Nonresident

Every student who is classified as a resident student but who becomes a nonresident at any time by virtue of a change of legal residence by the student's own action or by the person controlling the student's domicile is required to notify the proper administrative officials of his or her institution at once.

## XI. Official Change of Residence Status

## A. Application for Reclassification

Every student classified as a nonresident student shall be considered to retain that status until he or she makes written application for reclassification in the form prescribed by the institution and shall have been officially reclassified in writing as a resident of Texas by the proper administrative officers of the institution.

## B. Reclassification as a Nonresident

Every person who has been classified as a resident of Texas' shall be reclassified as a nonresident student whenever he or she shall report, or there is found to exist, circumstances indicating a change in legal residence to another state. If any student who has been classified as a resident of Texas shall be found to have been erroneously so classified, that student shall be reclassified as a nonresident and shall be required to pay the difference between the resident and nonresident fees for those semesters in which he or she was so erroneously classified. In addition, the student shall be required to pay back all monies borrowed from the Texas Opportunity Plan Fund.

## C. Reclassification as a Resident

If any student has been erroneously classified as a nonresident student and subsequently proves to the satisfaction of the appropriate officials of an institution of higher education that he or she should have been classified as a resident student, that student shall be reclassified as a resident of Texas and shall be entitled to a refund of the difference between the resident and nonresident fees for the semester in which he or she was so erroneously classified.

## XII. Penalties

Statute: Section 54.053 The governing board of each institution required by this Act to charge a nonresident tuition or registration fee is subject to the rules, regulations, and interpretations issued by the Coordinating Board, Texas College and University System, for the administration of the nonresident tuition provisions of this Act. The rules, regulations, and interpretations promulgated by the Coordinating Board shall be furnished to the presidents or administrative heads of all Texas public senior and junior colleges and universities.

Section 54.061 The governing board of an institution of higher education may assess and collect from each nonresident student who fails to comply with the rules and regulations of the boards concerning nonresident fees a penalty not to exceed $\$ 10$ a semester.

Student Compliance with Institutional Rules and Regulations
Each institution has been authorized by statute to assess and collect from each nonresident student failing to comply with the provisions of the tuition statute and with these interpretations concerning nonresident fees a penalty not to exceed $\$ 10.00$ a semester. In addition, if a student has obtained residence classification by virtue of deliberate concealment of facts, or misrepresentation of fact, that student may be subject to appropriate disciplinary action, in accordance with the rules and regulations that may be adopted by the governing boards of the respective institutions of higher education.

## D.

## COURSES APPLICABLE TO THE GENERAL EDUCATION REQUIREMENTS IN HISTORY AND GOVERNMENT

The State of Texas stipulates that coursework taken for the Bachelor's degree should include (a) six semester hours of United States history, three of which may be Texas history, and (b) six semester hours of courses treating the United States constitution and the constitution of the State of Texas. The UT San Antonio courses which apply to these requirements are listed below:
A. United States and Texas History
HIS 1013 United States Political History,
1775-1865: The Development of
American Political Institutions
and the Era of Constitutional
Crisis $\quad$ (U.S.)
HIS 2053 History of Texas Since 1836 ..... (Texas)
HIS 3013 The American Experience ..... (U.S.)
HIS 3023 American Independence and ..... (U.S.)National Unity, 1760-1820
HIS 3043 Populism and Progressivism ..... (U.S.)
HIS 3053 Jacksonian Democracy and $\mathrm{Na}-$ ..... (U.S.) tional Expansion, 1820-1860
HIS 3093 United States Constitutional ..... (U.S.) and Legal History
HIS 3123 History of Texas: The Colonial ..... (Texas) and Mexican Periods and the War of Independence
B. United States and Texas Government
POL 1013 Introduction to American Pol- ..... (U.S.) itics
POL 1023 The Politics of the American Economy
POL 2013 The Political Systems of the United States and Mexico ..... (U.S.)
POL 2023 Civil Liberties in American Law and Practice ..... (U.S.)
POL 2033 The Origins of the American Constitutional System ..... (U.S.)
POL 3303 Executive-Legislative Re- lations in the United States
POL 3323 Constitutional Law ..... (U.S.)(U.S.)(U.S.)
POL 1033 American State Politics ..... (Texas)
POL 1043 Introduction to Texas Politics ..... (Texas)
POL 2043 Contemporary Public Policy in Texas ..... (Texas)
POL 2053 Federalism in the United States and Mexico ..... (Texas)
POL 3313 The American Federal System

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## THE UNIVERSITY OF TEXAS AT SAN ANTONIO

## INFORMATION DIRECTORY


Teacher Certification Program . . . . Assistant Dean for TeacherCertification and Placement
Transfer of Credit ..... Registrar
Transcripts ..... Registrar
Veterans' Affairs ..... Registrar
Withdrawal from University ..... Registrar


[^0]:    *A more detailed calendar for registration, orientation, and advisement will be issued by the Registrar.

[^1]:    *A more detailed calendar for registration, orientation, and advisement will be issued by the Registrar.

[^2]:    *A more detailed calendar for registration, orientation, and advisement will be issued by the Registrar.

[^3]:    'See Borrowing Regulations of the John Peace Library in the Appendix of this catalog.

[^4]:    ${ }^{1}$ All tuition charges and fees are subject to change without notice.
    ${ }^{2}$ See Exemption from Tuition and Fees in this section of the catalog.

[^5]:    ${ }^{7}$ A detailed description of the residence regulations is offered in the Appendix of this catalog.

[^6]:    ${ }^{8}$ See Exemption from Tuition and Fees in this section of the catalog.
    ${ }^{9}$ See Exemption for Tuition and Fees in this section of the catalog.

[^7]:    ${ }^{10}$ Borrowing and fine regulations of the John Peace Library are set forth in the Appendix of this catalog.

[^8]:    "These refund percentages are applicable to tuition, the supplementary fees, the student use fee, laboratory fees, and the student service fee.

[^9]:    'Fees for services of the Career Planning and Placement Center are set forth in Section III of this catalog.

[^10]:    ${ }^{2}$ Fees for the Teacher Placement Service are set forth in Section III of this catalog.

[^11]:    ${ }^{1}$ When there are more qualified applicants than can be accommodated, The University may control enrollment by limiting the admission of first-time freshmen and other new students.
    ${ }^{2}$ Applicants furnishing results on the General Educational Development Test are required to have an average standard score of 45 or above on the five tests in the battery and to have no scores less than 35 on any of the five tests.

[^12]:    ${ }^{3}$ Students enrolling in UT San Antonio courses in which they have prior knowledge are encouraged to earn credit toward graduation through the Credit by Examination Program. (See the Credit by Examination Section of this catalog.)
    ${ }^{\wedge}$ A unit represents a year of study in one subject at an accredited secondary school.

[^13]:    ${ }^{5}$ For high schools on a calendar using other than the semester system, determination of eligibility may be made at the end of the term which is the next to the last term prior to graduation.

[^14]:    ${ }^{6}$ In the event there are more qualified applicants for admission than can be accommodated by The University, it may be necessary to restrict admission and/or enrollment. All applicants are, therefore, encouraged to apply for admission at the earliest possible time.

[^15]:    ${ }^{7}$ A complete list of certification programs is contained in a brochure available from the Office of Teacher Certification and Placement.

[^16]:    'Students are held individually responsible for meeting all requirements as indicated in this catalog. Failure to read and comply with policies, regulations, and procedures does not exempt a student from whatever penalties he/she may incur.

    The policies, regulations, and procedures stated in this catalog are subject to change without prior notice, if necessary, so that University policies are consistent with the policies of the Board of Regents of The University of Texas System.

[^17]:    ${ }^{2}$ During the first week of classes in a semester, or the first two class days in a summer term, a special student should seek approval of the course instructor and Dean of the College in which the course is offered. A certificate only student should seek approval of the course instructor and the Assistant Dean for Certification and Teacher Placement.

    After the first week of classes and through the twelfth class day of any semester, or on the third or fourth class day of any summer term, a special student and a certificate only student should seek the additional approval of the Dean of the College in which the course is offered.
    ${ }^{3}$ Undergraduates seeking to add a graduate course in any of these time periods must obtain the special approvals specified in the sections "Enrollment in Graduate Courses for Undergraduate Credit" and "Enrollment in Graduate Courses for Graduate Credit" in this catalog.

[^18]:    ${ }^{1}$ A single course can be applied to only one of the following: 1) general education requirements, 2) requirements for the major, 3) requirements for support work, 4) requirements for free electives.
    ${ }^{2}$ Free Electives, as used in this catalog, are any semester hours of credit accepted by UT San Antonio in transfer or awarded by UT San Antonio which, for degree purposes, are not applied to general education, major, or supportwork requirements.

[^19]:    ${ }^{3}$ For certain degrees offered at UT San Antonio, general education requirements are restricted. Students should be alert to this possibility and should consult the specific degree requirements established by the individual Colleges and Divisions and set out under the degree plans described in Section IX of this catalog.
    'A maximum of three semester hours in history can be earned by examination.
    ${ }^{5}$ A maximum of three semester hours in government or political science can be earned by examination.
    ${ }^{6}$ Undergraduate students from non-English speaking countries are not required to complete the foreign language requirement for a baccalaureate degree at UT San Antonio. Students from such countries are required, instead, to complete an additional nine hours of free electives.

[^20]:    ${ }^{7}$ Physical Activities courses do not apply to this requirement, nor may the General Education Requirements under Group C, education electives, be applied to these requirements by teacher certification students.

[^21]:    ${ }^{\text {" "Residence" is defined as credit earned at the UT System component which }}$ ultimately grants the degree. Residence credit does not include courses taken by extension or correspondence. Credit earned by examination other than by challenging UT San Antonio courses, does not apply to residence requirements.

[^22]:    ${ }^{9}$ Where vocational-technical courses support an individual's degree program, free-elective credit may be given upon the approvals of the Dean of the College in which the student is majoring and of the Vice President for Academic Affairs. Consideration to such free-elective credit is given only upon the written written request of the student.

[^23]:    ${ }^{10}$ See Degree Requirements in this section of the catalog and the Army ROTC Program which contains specific information on the maximum number of hours of military science that can be counted as free electives for the various degrees available at UT San Antonio.

[^24]:    ${ }^{11}$ Credit cannot be earned by examination 1) for courses which are used to fulfill the statutory history and government General Education Requirements in excess of 3 semester hours in history and 3 semester hours in government or political science or 2) for courses in a degree program for which no appropriate examination exists or which consist of materials that cannot be tested by means of examination.

[^25]:    ${ }^{1}$ Course offerings in undergraduate degree programs may be postponed if enrollments or resource and space limitations do not warrant their implementation.

[^26]:    'The 50 hours of General Education Requirements are distributed in the College of Business as set out above under General Education Requirements as Applied in the College of Business.

[^27]:    ${ }^{7}$ The 50 hours of General Education Requirements are distributed in the College of Business as set out above under General Education Requirements as Applied in the College of Business.

[^28]:    The 50 hours of General Education Requirements are distributed in the College of Business as set out above under General Education Requirements as Applied in the College of Business.

[^29]:    The 50 hours of General Education Requirements are distributed in the College of Business as set out above under General Education Requirements as Applied in the College of Business.
    ${ }^{5}$ Thirty-nine of the total semester hours required for the degree must be at the upper-division level.

[^30]:    ${ }^{T}$ The 50 hours of General Education Requirements are distributed in the College of Business as set out above under General Education Requirements as Applied in the College of Business.

[^31]:    ${ }^{7}$ The 50 hours of General Education Requirements are distributed in the College of Business as set out above under General Education Requirements as Applied in the College of Business.

[^32]:    ${ }^{\text {Y }}$ The 50 hours of General Education Requirements are distributed in the College of Business as set out above under General Education Requirements as Applied in the College of Business.

[^33]:    ${ }^{9}$ The 50 hours of General Education Requirements are distributed in the College of Business as set out above under General Education Requirements as Applied in the College of Business.

[^34]:    ${ }^{10}$ The 50 hours of General Education Requirements are Distributed in the College of Business as set out above under General Education Requirements as Applied in the College of Business.

[^35]:    4883 SMALL BUSINESS MANAGEMENT
    (3-0) 3 hours credit. Prerequisite: Upper-division standing or consent of instructor.
    Focuses on the operation of small businesses. Analysis of the accounting, finance, production, and marketing functions as they pertain to entrepreneurial endeavors. Develops overall managerial awareness.

[^36]:    "Thirty-nine of the total semester hours required for the degree must be at the upper-division level.

[^37]:    ${ }^{12}$ The 12 semester hours in printmaking may be selected from the combined lithography and intaglio areas.

[^38]:    ${ }^{13}$ The BFA Degree with a concentration in Architectural Design is not offered in 1976-78, although individual courses in this concentration may be scheduled. Class schedules for specific terms should be consulted.
    ${ }^{14}$ Information on lower-division courses available at other institutions which satisfy the requirements for this degree is available from the Division of Art and Design or from The University of Texas at San Antonio Admissions Office.

[^39]:    ${ }^{15}$ Thirty-nine of the total semester hours required for the degree must be at the upper-divison level.
    ${ }^{16}$ Same as footnote 15 above.

[^40]:    ${ }^{18}$ Thirty-nine of the total semester hours required for the degree must be at the upper-division level.

    All students who major in the College of Humanities and Social Sciences must complete ENG 1033 INTRODUCTION TO THE HUMANITIES or the equivalent.

[^41]:    ${ }^{19}$ Thirty-nine of the total semester hours required for the degree must be at the upper-division level.

    All students who major in the College of Humanities and Social Sciences must complete ENG 1033 INTRODUCTION TO THE HUMANITIES or the equivalent.

[^42]:    ${ }^{20}$ The Bachelor of Arts Degree in Russian is not offered in 1976-78, although individual courses in Russian may be scheduled. Class schedules for specific terms should be consulted.

[^43]:    ${ }^{2}$ See the sections on Credit by Examination and UT San Antonio Challenge Examinations in this catalog. Students should also consult the Credit by Examination Brochure.

[^44]:    ${ }^{22}$ All students who major in the College of Humanities and Social Sciences must complete ENG 1033 INTRODUCTION TO THE HUMANITIES or the equivalent.

[^45]:    ${ }^{23}$ All students who major in the College of Humanities and Social Sciences must complete ENG 1033 INTRODUCTION TO THE HUMANITIES or the equivalent.

[^46]:    ${ }^{24}$ The Bachelor of Arts Degree in Russian is not offered in 1976-78, although individual courses in Russian may be scheduled. Class schedules for specific terms should be consulted.
    ${ }^{25} \mathrm{All}$ students who major in the College of Humanities and Social Sciences must complete ENG 1033 INTRODUCTION TO THE HUMANITIES or the equivalent.

[^47]:    ${ }^{26}$ All students who major in the College of Humanities and Social Sciences must complete ENG 1033 INTRODUCTION TO THE HUMANITIES or the equivalent.

[^48]:    4363 SPANISH LITERATURE FROM THE CIVIL WAR (1936)TO THE PRESENT
    (3-0) 3 hours credit. Prerequisite: SPN 3313.

[^49]:    1. Urban Society

    The city is a fundamental social phenomenon associated

[^50]:    ${ }^{27}$ Thirty-nine of the total semester hours required for the degree must be at the upper-division level.

    All students who major in the College of Humanities and Social Sciences must complete ENG 1033 INTRODUCTION TO THE HUMANITIES or the equivalent.

[^51]:    ${ }^{2}$ The Bachelor of Arts Degree in Geography is not offered in 1976-78, although individual courses in geography may be scheduled. Class schedules for specific terms should be consulted.
    ${ }^{29}$ Thirty-nine of the total semester hours required for the degree must be at the upper-division level.

    All students who major in the College of Humanities and Social Sciences must complete ENG 1033 INTRODUCTION TO THE HUMANITIES or the equivalent.

[^52]:    ${ }^{30}$ Thirty-nine of the total semester hours required for the degree must be at the upper-division level.

    All students who major in the College of Humanities and Social Sciences must complete ENG 1033 INTRODUCTION TO THE HUMANITIES or the equivalent.

[^53]:    ${ }^{31}$ Thirty-nine of the total semester hours required for the degree must be at the upper-division level.

    All students who major in the College of Humanities and Social Sciences must complete ENG 1033 INTRODUCTION TO THE HUMANITIES or the equivalent.

[^54]:    ${ }^{32}$ Thirty-nine of the total semester hours required for the degree must be at the upper-division level.

    All students who major in the college of Humanities and Social Sciences must complete ENG 1033 INTRODUCTION TO THE HUMANITIES or the equivalent.

[^55]:    ${ }^{33}$ Thirty-nine of the total semester hours required for the degree must be at the upper-division level.

    All students who major in the College of Humanities and Social Sciences must complete ENG 1033 INTRODUCTON TO THE HUMANITIES or the equivalent.

[^56]:    3033 INTRODUCTION TO TEACHING ENGLISH AS A SECOND/ FOREIGN LANGUAGE
    (3-0) 3 hours credit. Prerequisite: ESL 3013 or consent of instructor.
    A study of the various theories and methods available for the teacher of English as a Second Language.
    4033 ENGLISH AS A SECOND LANGUAGE IN EARLY CHILDHOOD AND ELEMENTARY EDUCATION
    (3-0) 3 hours credit. Prerequisite: ESL 3013
    A course designed for examining, adapting, and utilizing approaches, methods, and techniques for English as a Second Language in early childhood and elementary school curriculum.

    ## 4043 ENGLISH AS A SECOND LANGUAGE IN SECONDARY AND

    ADULT EDUCATION(3-0) 3 hours credit. Prerequisite: ESL 3013.
    A course designed for examining, adapting, and utilizing approaches, methods, and techniques for English as a Second Language in secondary and adult education.

[^57]:    ${ }^{34}$ A complete list of Certification Programs is contained in a brochure available from the Office of Teacher Certification and Placement.

[^58]:    ${ }^{35}$ EDU 4043 and EDU 4063 may substitute for EDU 4046 . EDU 4086 or EDU 4083 and EDU 4043 may also substitute for EDU 4046. Students must inform the Director of Student Teaching of their plans to enroll in this course (these courses) one semester in advance.

[^59]:    ${ }^{36}$ Of the 15 hours of required electives listed as General Education Requirements, students must take three hours in Anatomy and Physiology and three hours in Kinesiology.

[^60]:    ${ }^{12}$ EDU 4043 and EDU 4063 may substitute for EDU 4046. EDU 4086 or EDU 4083 and EDU 4043 may also substitute for EDU 4046. Students must inform the Director of Student Teaching of their plans to enroll in this course (these courses) one semester in advance.
    ${ }^{3}$ For students seeking certification, 129 hours are required to complete the dual requirements of the degree and the certificate.

[^61]:    ${ }^{39}$ These courses and two others, Criminal Procedure and Evidence (3 semester hours) and Police-Community Relations ( 3 semester hours), are designated as the lower-division Law Enforcement core by the Texas Commission on Law Enforcement, Officer Standards, and Education.
    ${ }^{4}$ Students who enter the Criminal Justice Program at UT San Antonio without having completed these 12 hours must take them at a junior college or other approved lower-division program of their choice, as they are not offered at UT San Antonio. While completing these courses elsewhere, students may be enrolled concurrently at UT San Antonio.

    Students from a junior college or other approved lower-division program may transfer all 21 hours in the Law Enforcement core.

[^62]:    "Some of the 18 hours of military science required for the commission may be waived (without credit) for prior military service and/or junior ROTC.
    ${ }^{4}$ When fewer than 9 hours are allowed, the limitation results from the number of free elective hours available in the given degree program. Nevertheless, students in these degree programs may still enroll in the ROTC program.

[^63]:    ${ }^{43}$ Admission requirements for these professional schools are outlined in the Appendix of this catalog.

[^64]:    ${ }^{4}$ Thirty-nine of the total semester hours required for the degree must be at the upper-division level.

[^65]:    ${ }^{45}$ The clinical part of the program is scheduled to begin September, 1977.
    ${ }^{46}$ Six semester hours in Sociology in Group C electives and six semester hours in Fine and Applied Arts from Group A electives are selected as part of the General Education Requirements, with the approval of the student's Advisor.

[^66]:    "The clinical part of the program is scheduled to begin September, 1977.
    ${ }^{48}$ The student is required to complete 6 hours in Group A electives and 9 hours in Psychology and Sociology as Group C electives for General Education Requirements.

[^67]:    ${ }^{19}$ The Food Technology concentration is not offered in 1976-78. Students interested in this concentration should consult the Director of the Division of Earth and Physical Sciences.
    ${ }^{\text {s }}$ Same as footnote number 49 above.

[^68]:    ${ }^{3}$ Same as footnote number 49

[^69]:    ${ }^{52}$ Thirty-nine of the total credit hours required for the degree must be at the upper-division level.

[^70]:    ${ }^{63}$ With the consent of the student's Advisor, up to 12 hours may be in upperdivision Mathematics, Computer Science, Systems Design, or Chemistry courses.

[^71]:    3283 ELECTRICITY AND MAGNETISM
    (3-0) 3 hours credit. Prerequisite: PHY 1923. Prerequisite or concurrent enrollment: MAT 3243.

[^72]:    ${ }^{5}$ Thirty-nine of the total semester hours required for the degree must be at the upper-division level.

[^73]:    ${ }^{5}$ Thirty-nine of the total semester hours required for the degree must be at the upper-division level.
    ${ }^{56}$ The student who is not prepared to begin MAT 1213 must take MAT 1011, Algebra and/or MAT 1092, Elementary Functions.

[^74]:    *In accordance with provisions of Senate Bill 123, 63rd Texas Legislature, effective August 27, 1973, and with Attorney General's Opinion H-82, August 13, 1973, any refrence to age "twenty-one" in these Rules and Regulations for Determining Residency Status should be interpreted to mean age "eighteen".

[^75]:    **The reference to the 22 nd birthday should be interpreted as the 19 th birthday.

[^76]:    ***Subparagraph (d), Section 54.058 has been repealed by House Bill 736, 63rd Legislature, effective August 27, 1973.

[^77]:    ****These provisions apply only to foreign students who enter state colleges and universities for the first time after June 19, 1975.

[^78]:    *****These provisions apply only to foreign students who enter state colleges and universities for the first time after June 19, 1975.

[^79]:    ******These provisions apply only to foreign students who enter state colleges and universities for the first time after June 19, 1975.

