

GRADUATE CATALOG 1986-87

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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 and are in compliance with state and federal laws.

Students are held individually responsible for meeting all requirements as indicated in this catalog. Failure to read and comply with policies, regulations and procedures will not exempt a student from whatever penalties he or she may incur.

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

I. CALENDAR

THIS IS THE REVISED UNIVERSITY CALENDAR FOR THE FALL SEMESTER 1986

UNIVERSITY CALENDAR
Fall Semester, 1986

April 28-May 2.....Monday-Friday. Registration for Fall 1986.

June 1Sunday. Deadline for Foreign student admission applications for Fall Semester, 1986.

June 16Monday. Fall 1986 deadline for filing Petition for Reinstatement for students who have been academically dismissed a second or subsequent term.

June 16-20.....Monday-Friday. Continuing Registration for Fall 1986.

July 14-18.....Monday-Friday. Continuing Registration for Fall 1986.

August 1.....Friday. Deadline for applying for admission and providing supporting documents for Fall 1986.

August 8Friday. Last day to pay tuition and fees for Fall 1986 Registration.

August 26Tuesday. New Student Orientation.*

August 27.....Wednesday. New Student Orientation and New and Returning Former Student Registration.

August 28.....Thursday. Late Registration, Fall 1986.

August 29Friday. Last day to withdraw from Fall classes and receive a 100% refund of tuition and fees.

September 1Monday. Labor Day Holiday.

September 2.....Tuesday. Classes begin. Continuing Late Registration.

September 4.....Thursday. Last day of Late Registration.

September 8.....Monday. Last day to withdraw and receive an 80% refund of tuition and fees.

September 15.....Monday. Last day to withdraw and receive a 70% refund of tuition and fees. Last day to return textbooks to the bookstore for a full refund. Must have a sales receipt.

September 17.....Wednesday. Last day to: Add a class; Drop or Withdraw without a grade; choose credit/no credit grading option (Undergraduates only); drop a class and receive a refund. Census date.

THIS IS THE REVISED UNIVERSITY CALENDAR FOR THE FALL SEMESTER 1986

September 19 Friday. Second installment payment is due for students who elected to use the four payment plan. Last day for students to request Challenge Exams.

September 22..... Monday. Last day for students to withdraw and receive a 50% refund of tuition and fees.

September 29..... Monday. Last day to withdraw and receive a 25% refund of tuition and fees.

October 1..... Wednesday. Deadline for Fall 1986 degree candidates to apply for graduation.

October 15 Wednesday. Spring 1987 deadline for filing Petition of Reinstatement for students who have been academically dismissed a second or subsequent time. Foreign student admission application deadline for Spring Semester, 1987.

October 17 Friday. Third installment payment is due for students who elected to use the four payment plan. Final payment is due for students who elected to use the two payment plan.

October 31..... Friday. Last day for students to drop an individual course or withdraw from The University and receive an automatic "W". Deadline for submission of preliminary draft of thesis.

November 14 Friday. Final installment payment is due for students who elected to use the four payment plan.

November 25..... Tuesday. Deadline for submission of final copy of thesis.

November 27-29..... Thursday-Saturday. Thanksgiving holidays.

December 1..... Monday. Deadline for applying for admission and providing supporting documents for Spring Semester 1987.

December 8 Monday. Last day to withdraw from The University.

December 10..... Wednesday. Deadline to file approved thesis with Dean's Office.

December 15-20..... Monday-Saturday. Final Examinations.

December 20..... Saturday. Semester closes.

*For specific days and times contact The Office of Student Services.

*SPRING SEMESTER, 1987

November 17-21	Monday-Friday. Spring 1987 Registration for Continuing students.
December 1	Monday. Deadline for applying for admission and providing supporting documents for Spring 1987.
January 14	Wednesday. New and returning former student Registration.
January 15	Thursday. Late Registration.
January 19	Monday. Classes begin. Continuing Late Registration.
January 21	Wednesday. Last day of Late Registration.
January 23	Friday. Last day to withdraw and receive an 80% refund of tuition and fees.
January 30	Friday. Last day to withdraw and receive a 70% refund of tuition and fees.
February 3	Tuesday. Last day to add a class; drop or withdraw without a grade; drop a course and receive a refund. Census date.
February 6	Friday. Last day to withdraw and receive a 50% refund of tuition and fees.
February 13	Friday. Last day to withdraw and receive a 25% refund of tuition and fees.
February 16	Monday. Deadline for Spring 1987 degree candidates to apply for graduation.
March 1	Sunday. Foreign student admission application deadline for Summer 1987.
March 20	Friday. Last day to drop an individual course or withdraw from The University and receive an automatic grade of "W".
March 23-28	Monday-Saturday. Spring Vacation.
March 27	Friday. Deadline for submission of preliminary draft of thesis.
April 21	Tuesday. Deadline for submission of final copy of thesis.
May 4	Monday. Last day to withdraw from The University.
May 6	Wednesday. Deadline to file approved thesis with Dean's Office.
May 11-16	Monday-Saturday. Final Examinations.
May 16	Saturday. Semester closes.
May 17	Sunday. Commencement.

SUMMER SESSION, 1987

Dates to be announced later. Please consult the detailed calendar when published in the Summer Schedule of Classes issued by The Office of Admissions and Registrar.

*Some of the dates in the catalog calendar may be subject to change. A more detailed calendar will be published in the Schedule of Classes issued by The Registrar.

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Dwight F. Henderson, Professor, B.A., M.A., Ph.D., University of Texas at Austin

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

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

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

Woodruff D. Smith, Professor, A.B., Harvard University; A.M., Ph.D., University of Chicago

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

James R. Dykes, Associate Professor, B.A., Ph.D., The University of Texas at Austin

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

Gilberto M. Hinojosa, Associate Professor, B.A., Our Lady of the Snows; M.A., St. Mary's University; Ph.D., The University of Texas at Austin

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

Maria-Luisa Urdaneta, Associate Professor, B.A., M.A., University of Texas at Austin; Ph.D., Southern Methodist University

George D. Bishop, Assistant Professor, B.A., Hope College; M.S., Ph.D., Yale University

Stephen J. Blank, Assistant Professor, B.A., University of Pennsylvania; M.A., Ph.D., University of Chicago

Antonio Calabria, Assistant Professor, A.B., Brown University, Providence; M.A., Ph.D., University of California, Berkeley

Ann R. Eisenberg, Assistant Professor, B.A., M.A., Johns Hopkins University; Ph.D., University of California, Berkeley

Robert M. Hill, II, Assistant Professor, A.B., M.A., Ph.D., University of Pennsylvania

Alida C. Metcalf, Assistant Professor, A.B., Smith College; M.A., Ph.D., The University of Texas at Austin

Linda K. Pritchard, Assistant Professor, B.A., University of Michigan; M.A., Ph.D., University of Pittsburgh

James C. Schneider, Assistant Professor, B.A., St. Lawrence University; M.A., Ph.D., University of Wisconsin

Division of Bicultural-Bilingual Studies

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

Rodolfo Jacobson, Professor, M.A., Universidad de Panama; M.A., Ph.D., University of Michigan

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

Albar A. Pena, Professor, B.S., The University of Texas at Austin; M.A., Texas A&I University; Ph.D., The University of Texas at Austin

Mauricio E. Charpenel, Associate Professor, B.A., Central Missouri State; M.A., Universidad Nacional Autonoma de Mexico; M.L.S., Ph.D., The University of Texas at Austin

Robert D. Milk, Assistant Professor, B.A., M.A., Ph.D., Stanford University

Division of Education

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

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

Wayne W. Laughery, Professor, B.A., M.A., San Diego State College; Ed.D., Columbia University Teachers College

Berry Sutherland, Professor, B.S., The University of Texas at Austin; M.S., Ed.D., University of Houston

Elwood B. Traylor, Professor, B.A., Greenville College; M.A., Ph.D., Washington University at St. Louis

James W. Wagener, Professor, B.A., Southern Methodist University; M.A., Ph.D., The University of Texas at Austin

Paul H. Westmeyer, Professor, B.S., M.A., Ball State University; Ed.D., University of Illinois

L. Jean York, Professor, B.A., Kalamazoo College; M.Ed., Wayne State University; Ed.D., Indiana University

Ronnie N. Alexander, Associate Professor, B.S., M.A., Central State University; Ed.D., University of Kansas

Anthony J. Arabia, Associate Professor, A.B., M.Ed., M.L.S., Ph.D., University of Pittsburgh

George R. Colfer, Associate Professor, B.S., Lock Haven State College; M.S., Ithaca College; Ph.D., Texas A&M University

Gillian E. Cook, Associate Professor, B.A., Sir George Williams University; Ed.M., Ed.D., Harvard Graduate School of Education

Nicholas M. DeLuca, Associate Professor, B.A., Columbia University; M.A., Ed.D., State University of New York at Albany

Richard A. Diem, Associate Professor, B.S., Bradley University; M.S., Southern Illinois University; M.A., Colorado State University; Ph.D., Northwestern University

Barbara M. Gonzalez-Pino, Associate Professor, B.A., M.A., Ph.D., The University of Texas at Austin

Tony W. Johnson, Associate Professor, B.A., Western Carolina University; M.A., Ph.D., George Peabody College

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

Katherine Strickland, Associate Professor, B.A., M.S., University of Wisconsin; Ph.D., University of Florida

Sue Clark Wortham, Associate Professor, B.S., University of Houston; M.A., Southwest Texas State University; Ph.D., The University of Texas at Austin

Kenneth W. Wunderlich, Associate Professor, B.A., Ph.D., The University of Texas at Austin

Jesse Zapata, Associate Professor, A.A., San Antonio College; B.A., The University of Texas at Austin; M.Ed., Texas Tech University; Ph.D., Arizona State University

Diana M. Drake, Assistant Professor, B.A., Swarthmore College; Ed.M., Ed.D., Harvard Graduate School of Education

Larry B. Golden, Assistant Professor, B.Ed., University of Miami; M.S., City University of New York; Ph.D., Arizona State University

Rosalind Horowitz, Assistant Professor, B.S., M.A., Ph.D., University of Minnesota

William H. Teale, Assistant Professor, B.A., Pennsylvania State University; M.Ed., Ed.D., University of Virginia

Linda J. Whitson, Assistant Professor, B.A., Texas Tech University; M.S., Ph.D., Texas A&M University

Suzanne M. Winter, Assistant Professor, B.S., Southwest Texas State University; M.S., Corpus Christi State University; Ph.D., The University of Texas at Austin

Division of Social and Policy Sciences

Thomas J. Bellows, Professor, B.A., Augustana College; M.A., University of Florida; M.A., Ph.D., Yale University

Rudolph Gomez, Professor, B.S., Utah State University; M.A., Stanford University; Ph.D., University of Colorado

Ronald H. Rogers, Professor, B.S., Florida State University; M.S., Michigan State University; M.P.A., University of Southern California; Ph.D., Claremont Graduate School

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

James D. Calder, Associate Professor, B.A., University of Maryland; M.S., California State University, Long Beach; Ph.D., Claremont Graduate School

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

Richard J. Harris, Associate Professor, B.A., Macalester College, M.A., Ph.D., Cornell University

Richard C. Jones, Associate Professor, B.S., Austin Peay State University; M.A., Indiana University; Ph.D., Ohio State University

Richard A. Lawrence, Associate Professor, B.A., Bethel College; M.A., St. Mary's University, Ph.D., Sam Houston State University

Edgar W. Mills, Jr., Associate Professor, D.B., Ph.B., University of Chicago; Ph.D., Harvard University

Avelardo Valdez, Assistant Professor, B.A., B.S., M.A., University of Wisconsin, Milwaukee; M.A., Ph.D., University of California at Los Angeles

Roger C. Barnes, Assistant Professor, B.A., M.A., Ph.D., University of Kansas

John R. Bauer, Assistant Professor, B.A., M.A., St. Mary's University, Ph.D., Duke University

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

Nadine S. Koch, Assistant Professor, B.A., San Diego State University, M.S., Ph.D., Ohio State University

David A. Kowalewski, Assistant Professor, B.A., Mount Angel Seminary; M.A., University of Oklahoma; M.A., M.A., Ph.D., University of Kansas

Raymond R. Leal, Assistant Professor, B.S., University of Texas at Austin; M.A., University of Arkansas; Ph.D., Indiana University

Gary A. Mattson, B.A., State University of New York at Albany; M.P.A., City University of New York; M.C.P., University of Rhode Island; Ph.D., University of Delaware

Mark A. McBriarty, Assistant Professor, B.A., St. Josephs College, Pennsylvania; M.B.A., D.P.A., George Washington University

Judith S. McIlwee, Assistant Professor, B.A., San Diego State University; M.A., Ph.D., University of California, San Diego

Michael T. Miller, Assistant Professor, B.S., M.S., Ph.D., Texas A&M University

Jeffrey B. Roet, Assistant Professor, B.A., State University of New York; M.A., Ph.D., Northwestern University

Robert P. Twogood, Assistant Professor, B.A., New College, M.A., P.A., Ph.D., University of Virginia

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 the 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, approved the academic organization and degree programs recommended for the new university. These degree programs, additional degree programs subsequently approved, as well as additional changes in UT San Antonio's organizational structure are described in the institutional catalogs.

The second phase of campus construction was initiated in Summer 1977. This phase consisted of a classroom and office building; an addition to the Arts Building, including a sculpture and ceramics studio building; ten outdoor championship tennis courts; and an outdoor multi-purpose playing field with 400 meter running track.

The Student Representative Assembly had its constitution approved by the Board of Regents on October 1, 1976, and the first slate of officers was elected on November 22, 1976.

The Alumni Association was chartered in Fall, 1977.

MISSION

U. T. San Antonio, a comprehensive public urban university, is committed to freedom of inquiry and the creation of an environment in which people can teach, discover, learn and enrich their individual societal lives. Through its instructional, research and public service programs, U. T. San Antonio seeks to carry out its mission, to serve the needs of the multicultural population of San Antonio and the South Texas region, emphasizing programs that contribute to the technological and economic development

of the city and region. U. T. San Antonio also serves the broader geographical communities of the state, the nation and the world with selected programs reflecting specialized university strengths.

U. T. San Antonio, offering a wide range of academic degree programs leading to the bachelor's and master's degrees, and selected doctoral programs (upon approval), strives to guide students toward achieving knowledge and skills required to succeed in their chosen fields. In addition, The University provides the opportunity for all undergraduate students to develop those characteristics of a truly educated person through its general education requirements in social sciences, languages and culture, sciences and mathematics.

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

U. T. San Antonio emphasizes excellent teaching, research and creative activities, and scholarship. To this end, The University recruits and retains faculty who exemplify this balance. At the same time, it encourages faculty to engage in public service activities appropriate to their academic fields. U. T. San Antonio encourages and facilitates multidisciplinary instructional, research and public service efforts, where appropriate, through its administrative structure, degree programs and personnel policies.

Through its broad research efforts, U. T. San Antonio both creates new knowledge through its basic research programs and applies that knowledge to today's problems through its applied research activities. U. T. San Antonio seeks to facilitate the transfer of research findings into the work environment through continuing education and graduate level programs for maintaining and upgrading specialized skills of professionals employed in San Antonio and the South Texas region.

U. U. San Antonio seeks to enrich the cultural environment not only of The University but also of the community through its fine arts and humanities programming.

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 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 a liaison between the President's Office and faculty committees concerned with academic matters. The Vice President for Academic Affairs chairs the Deans' Council. 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 provides the President with advice and counsel on the general administrative services of The University and acts as liaison

between the President's Office and all University standing committees. This officer is responsible for sponsored research and contracts, affirmative action, and the duties performed by the Director of Media Resources, the Director of Libraries, and the Dean of Students. 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 four Colleges. The Deans report to the Vice President for Academic Affairs. 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 coordinated within each of the four colleges. Through the college deans, the University develops, promotes, coordinates, evaluates, and provides financial and logistical support for conferences, institutes, short courses, workshops, seminars, and special training programs. While no permanently assigned faculty are employed, instructors for the various activities are selected from one or more of the four 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 is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools as a Level III, General postsecondary institution.

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 1984 the collections of the library include 327,000 cataloged volumes; 130,000 federal, state and local documents; and 330,000 volume equivalents held in microform for a wide range of subjects. The library has approximately 2,200 subscriptions to periodicals and receives as a designated depository a wide variety of federal, state, and local documents. 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. Most notable among the special collections are the John Peace Collection of books and documents in the period of the Texas Republic and the Kathryn Stoner O'Connor Collection of early Texas and Mexican materials owned by the Sons of the Texas Republic, on permanent deposit in the Special Collections department.

The public service staff includes professional librarians with subject specialties who offer reference and bibliographic assistance to students and faculty. An on-line catalog and on-line computer searching is available as is a full range of inter-library loan services. Circulations, acquisitions and cataloging procedures are highly automated. The library is a member of OCLC, a national cataloging network. It is also a member of the Council on Research and Academic Libraries (CORAL), a library network which has as its goals the developing and strengthening of information resources and services in the greater San Antonio area.

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, music listening facilities, and a curriculum materials center. Carrels, group study rooms, lounges, and faculty studies are conveniently located throughout the building to provide ideal study conditions. Coin-operated copying equipment for paper and microform materials are available to library users.¹

INSTITUTE FOR THE ARTS AND HUMANITIES

The Institute for the Arts and Humanities is located in the College of Fine Arts and Humanities. The Institute activities encompass the fine arts (visual and performing arts) and humanities (art and architectural history, and art criticism, literature, dramatic literature and foreign languages). The goals of the Institute include providing assistance to faculty, students and other persons interested in pursuing research and further studies, and making available general information on the arts of Western Europe and the Americas.

The Institute fosters professional research in the fine arts and humanities. It provides opportunities for faculty and students in the College to continue their research and to serve the community of scholars within and outside The University.

RESEARCH CENTER FOR THE VISUAL ARTS

The activities of the Research Center for the Visual Arts encompass the visual arts, art and architectural history, and art criticism. The Center will have a primary focus on historical disciplines with special reference to the study of Iberian and Interamerican arts.

INSTITUTE FOR STUDIES IN BUSINESS

The Institute for Studies in Business is the research center of the College of Business. The major objective of the Institute is to offer the opportunity for students and faculty of The University to have an adequate environment for problem solving and community-related research. While the Institute 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 Institute 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.

INSTITUTE FOR RESEARCH IN SCIENCES AND ENGINEERING

The Institute for Research in Sciences and Engineering (IRSE) addresses the research functions of the College of Sciences and Engineering. The major goals of IRSE are to offer opportunities for expanded research in the science and engineering fields for faculty and graduate students, to nurture interdisciplinary, mission-oriented team

¹Additional information on the John Peace Library and on its borrowing regulations may be obtained in the library.

research projects, and to provide an educational opportunity whereby individual skills can be developed to fill employer's needs for scientific, engineering and technical fields. Although IRSE is a part of the College of Sciences and Engineering, it interacts with the faculty of the other Colleges and with the local research community through the Southwest Research Consortium.

IRSE serves as a focal point for science and engineering activities at The University by providing contract and grant management and by furnishing services and research support for faculty and students. Exceptional students have an opportunity to gain valuable work experience through the various research and educational programs supported by IRSE.

IRSE seeks to support the individual involved in research, as well as to nourish team research for projects requiring the strength of individuals drawn from many disciplines. Individual research projects are active in all areas of the College, ranging from the life sciences, chemistry, computer science and systems design, physics, civil engineering, electrical engineering, and mechanical engineering to geology.

CENTER FOR HUMAN ORIENTED SCIENCES AND ENGINEERING

Because of the strength of the team effort addressing the application of the sciences and engineering to problems relating to human characteristics and requirements involved in complex systems including both physical and social aspects of the environment, the Center for Human Oriented Sciences and Engineering (CHOSE) has been formed within IRSE. CHOSE emphasizes studies in applied mathematics and statistics, information and computer science, cognitive science including artificial intelligence and computer-aided instruction, and human physiology and performance.

Team efforts have been conducted in the past in diverse areas involving pharmaceutical chemistry, health related issues, and energy and environmental studies. When the effort is of appropriate magnitude, centers such as CHOSE will be formed as a mechanism for enhancing the research effort.

INSTITUTE FOR RESEARCH IN SOCIAL AND BEHAVIORAL SCIENCES

The Institute for Research in Social and Behavioral Sciences coordinates the activities of two Centers and two Offices located in the College of Social and Behavioral Sciences. The Center and Offices are designed to promote faculty and student research and to assist local agencies and citizens who need professional services from areas represented in the College.

THE CENTER FOR ARCHAEOLOGICAL RESEARCH

The Center for Archaeological Research (in the College of Social and Behavioral Sciences) was established in September, 1974. Among its objectives are: (1) to provide the opportunity for students to train in archaeology; (2) to promote archaeological research in the South and South Central Texas region; (3) to carry out archaeological surveys and assignments for federal and state agencies as required by legislation and executive orders; (4) to aid local agencies and citizens who need the services of trained archaeologists.

The Center's staff includes a number of graduate and undergraduate students, who, along with other Center personnel, have conducted archaeological investigations in various parts of Texas, particularly in the South, Southwest, and Central sections of the state. Results of these investigations are published in more than 150 volumes in the Center's four publication series: *Archaeological Survey Reports*, *Regional Studies*, *Special Reports*, and *Guidebooks in Archaeology*.

The Center has administered nearly 300 contracts and grants to date, among which was a two-year study of the archaeology and ethnohistory of the Spanish mission complex at Guerrero, Mexico, a multi-year study of the prehistory and history of the Choke Canyon Reservoir area in southern Texas, five seasons of excavation at the Maya site of Colha in Belize, Central America, and studies of the Rio Azul site in Guatemala. Several projects have also been carried out in Louisiana and New Mexico. In addition, the Center has helped to organize and support regional archaeological surveys and excavations and has participated in local, state, and international archaeological conferences.

In 1985, the Center launched its "Friends of Archaeology" program of public participation in archaeological research. Through the "Friends" program, the Center is able to provide seed grants for faculty and students, research assistant stipends for graduate and undergraduate anthropology majors, as well as the sponsorship of special lectures.

CENTER FOR LEARNING AND DEVELOPMENT RESEARCH IN EDUCATION

The Center for Learning and Development Research in Education, located in the College of Social and Behavioral Sciences, is designed to stimulate basic and applied research in learning and development, particularly as it applies 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 involves 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.

OFFICE OF PROFESSIONAL DEVELOPMENT IN EDUCATION

The Office of Professional Development in Education, located in the College of Social and Behavioral Sciences, is designed to promote professional development activities for educators. The development of advanced academic training programs (AAT), the coordination of UTSA faculty in staffing advanced academic training programs, the presentation of professional training programs for educators as identified by Chapter 75 of the Texas Education Code and the evaluation of advanced academic training programs are at the core of its activities. The office seeks to work with schools to develop advanced academic training programs that will fit the needs of both the professional educator and the local community.

Three delivery systems are available to meet these objectives: (1) graduate or undergraduate coursework for university credit in subject matter or professional education areas; (2) advanced academic training in subject matter areas; and (3) advanced academic training in areas such as classroom management training, pedagogy, and strategies and techniques for teaching.

Each of these programs can be offered on UTSA's campus, at HemisFair Plaza or at selected off-campus locales. Credit for graduate and undergraduate coursework is accumulated via standard academic procedures including conformity to graduate, special graduate or undergraduate admission requirements. All advanced academic training programs conform to Texas legislative guidelines whereby 15 hours of AAT is equivalent to 1 hour of graduate coursework.

OFFICE OF RESEARCH ON TEACHING PERFORMANCE

The Office of Research on Teaching Performance (in the College of Social and Behavioral Sciences) was established in response to the 1985 Texas educational reform legislation which mandates the performance appraisal of teachers. The Office has three main purposes: (1) to assist school districts with teacher evaluation, (2) to design and conduct research on teaching performance and its evaluation, and (3) to interpret and disseminate research findings on the processes of teaching and teacher evaluation to the profession and the public.

The Office makes available to school districts the consultative assistance of Education faculty for determining district needs in teacher evaluation, in developing immediate and long-range methods for evaluating teaching performance, and in using and assessing processes for teacher evaluation.

The Office promotes collaboration among researchers, teachers, and administrators in school settings and in other educating institutions for the design, support, and conduct of research into variables of teaching performance and teaching effectiveness.

A major purpose of the Office is to interpret research on teaching for the profession and the public. The Office designs and develops workshops, conferences, and media productions among other delivery systems, to broadly disseminate the meanings of research on teaching and to promote understanding of the complexities and dimensions of teaching performance.

COUNCIL ON GRADUATE EDUCATION

The Council on Graduate Education at The University of Texas at San Antonio is the governing body of the Graduate Faculty. The Council's responsibilities include: all matters of academic policy in the area of graduate education; establishment of qualifications for membership on the Graduate Faculty; review and approval of faculty members as recommended by the Committees on Graduate Studies, Division Directors and Deans of the Colleges to participate in the graduate program; coordination of graduate education in The University and maintenance of its quality by recommending minimum university-wide graduate academic standards; monitoring of the quality of graduate education through a periodic evaluation of graduate programs and review of and recommendation on proposals for new graduate programs and courses and revisions of existing programs and courses.

Members are elected to the Council on Graduate Education by the Members of the Graduate Faculty in Committees on Graduate Studies for each graduate degree program in The University. There is a student representative to the Council on Graduate Education from each College elected by the Members of the Graduate Faculty in each College and from these representatives, one student is elected to represent the Council on the University Assembly. The Vice President for Academic Affairs chairs the Council on Graduate Education and is the administrative officer responsible for graduate education.

THE UNIVERSITY BOOKSTORE

The University Bookstore, owned and operated by UT San Antonio, is located on the first level of the Science 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 FOOD SERVICE

Two cafeterias, one on the first level of the John Peace Library and one in the new University Center, provide complete food and beverage service to the entire University community. Owned and operated by The University, both cafeterias provide breakfast, lunch, dinner and snacks. Daily specials are available in all areas and a salad bar and vegetarian meals are also included. For a quick lunch, or a coffee break, The Subway is located on the first floor of the Humanities-Business Building. The University Food Service provides catering for large or small groups.

OFFICE OF MEDIA RESOURCES

The Office of Media Resources, located in the Multidisciplinary Studies Building, offers a variety of media services in support of academic activities. Some of the services include distribution of audio-visual equipment for classroom and research use, graphic art production including typesetting, laminating, overhead transparencies, and original art work; photographic services, television and audio production, public address sound support, and technical-consultative services for instructional and professional development.

COMPUTING RESOURCES

Presently, computing services at The University are provided by an IBM 4381, an IBM 4341, and a DEC VAX 11/780. These systems support administrative and academic activity with both on-line and batch capability. Approximately 300 full-screen terminals are directly attached to these systems. The on-line direct access storage capacity is 12.7 billion bytes (characters) of data.

On-line administrative processing is maintained through the use of the teleprocessing system COM-PLATE and the data base management system ADABAS. Computer related course assignments and faculty research are facilitated by both IBM's Conversational Monitoring System (CMS) and DEC's Virtual Machine System (VMS).

III. TUITION, FEES, CHARGES, PENALTIES AND DEPOSITS

PAYMENT AND REFUND POLICIES

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

PAYMENT

Students are entitled to enter class or laboratory only after payment of their tuition and fees has been arranged using one of the following alternatives:¹

- a) Full payment of tuition and fees in advance of the beginning of the semester.
- b) One-half payment of tuition and fees in advance of the beginning of the semester and one-half payment prior to the start of the eighth class week.
- c) One-fourth payment of tuition and fees in advance of the beginning of the semester and separate one-fourth payments prior to the fourth, eighth, and twelfth class weeks.

A student may choose (b) or (c) only during the fall and spring semesters and if the total amount due at Registration, after all credits have been applied, is \$100.00 or greater. A service charge of \$11.00 will be added to the students bill if alternative (b) or (c) is chosen.

No change in the payment plan chosen by the student at Registration will be allowed during the semester.

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

Refunds from the Add/Drop process will be prorated to remaining installments. Additional fees incurred from the Add/Drop process will be added to the balance due from Registration and the installment payments will be recalculated according to the installment plan chosen at Registration.

A late fee of \$10.00 will be added to the student's bill if an installment payment is not paid by the due date. A student who fails to make full payment prior to the end of the semester will not receive credit for the work done that semester and will not be allowed to register for future semesters until the delinquent amount is paid.

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.

Personal checks may be cashed in the University Bookstore for an amount up to \$5.00. 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 tuition² 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:

TUITION EACH SEMESTER

Number of Hours Taken ³	RESIDENTS OF TEXAS		NONRESIDENTS	
	Fiscal Year 85-86	Fiscal ⁴ Year 86-87	U.S. Citizens	Foreign Students
1	100.00	100.00	120.00	120.00
2	100.00	100.00	240.00	240.00
3	100.00	100.00	360.00	360.00
4	100.00	100.00	480.00	480.00
5	100.00	100.00	600.00	600.00
6	100.00	100.00	720.00	720.00
7	100.00	112.00	840.00	840.00
8	100.00	128.00	960.00	960.00
9	108.00	144.00	1,080.00	1,080.00
10	120.00	160.00	1,200.00	1,200.00
11	132.00	176.00	1,320.00	1,320.00
12	144.00	192.00	1,440.00	1,440.00
13	156.00	208.00	1,560.00	1,560.00
14	168.00	224.00	1,680.00	1,680.00
15	180.00	240.00	1,800.00	1,800.00
16	192.00	256.00	1,920.00	1,920.00
17	204.00	272.00	2,040.00	2,040.00
18	216.00	288.00	2,160.00	2,160.00
19	228.00	304.00	2,280.00	2,280.00
20	240.00	320.00	2,400.00	2,400.00
21	252.00	336.00	2,520.00	2,520.00
Each Addi- tional Hour	12.00	16.00	120.00	120.00

¹Tuition and fees are subject to change by Legislative action. Changes in tuition or fees will be effective upon date of enactment and will be reflected in fees and tuition charged.

²See Exemption from Tuition and Fees in this section of the catalog.

³Tuition for resident or nonresident students registered for thesis or dissertation credit only is \$12.00 for residents of Texas and \$120.00 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.

⁴Tuition rates for Fiscal Year 87-88 are the same as Fiscal Year 86-87.

TUITION SUMMER SESSION

Number of Hours Taken ⁵	RESIDENTS OF TEXAS				NONRESIDENTS	
	Each Summer Term		Entire Summer Session		U.S. Citizens	Foreign Students
	Fiscal Year 85-86	Fiscal Year 86-87	Fiscal Year 85-86	Fiscal Year 86-87		
1	50.00	50.00	100.00	100.00	120.00	120.00
2	50.00	50.00	100.00	100.00	240.00	240.00
3	50.00	50.00	100.00	100.00	360.00	360.00
4	50.00	64.00	100.00	100.00	480.00	480.00
5	60.00	80.00	100.00	100.00	600.00	600.00
6	72.00	96.00	100.00	100.00	720.00	720.00
7	84.00	112.00	100.00	112.00	840.00	840.00
8	96.00	128.00	100.00	128.00	960.00	960.00
9	108.00	144.00	108.00	144.00	1,080.00	1,080.00
10	120.00	160.00	120.00	160.00	1,200.00	1,200.00
11	132.00	176.00	132.00	176.00	1,320.00	1,320.00
12	144.00	192.00	144.00	192.00	1,440.00	1,440.00
13	156.00	208.00	156.00	208.00	1,560.00	1,560.00
14	168.00	224.00	168.00	224.00	1,680.00	1,680.00
Each Additional Hour	12.00	16.00	12.00	16.00	120.00	120.00

CONCURRENT TUITION

Students who register at more than one public institution of higher education in Texas concurrently **may** receive the benefits of a lower tuition rate. If at the time of registration, a student can produce evidence of having already paid his or her tuition at another public institution of higher education in Texas, the student should present such evidence at the Fee Assessment station during registration.

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.⁶ 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 without the express authorization of the Registrar.

⁵Tuition for resident or nonresident students registered for thesis or dissertation credit only is \$12.00 for residents of Texas and \$120.00 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.

⁶For residence regulations, consult the Office of Admissions and Registrar.

PENALTY 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 resident 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.

GENERAL FEE AND STUDENT SERVICES FEE

Each student who registers at UT San Antonio is required to pay general fees and service fees⁷ according to the number of semester credit hours for which registration is completed, as set forth in the table below:

SEMESTER HOURS	GENERAL FEE ⁸	STUDENT SERVICES FEE
1	6.00	7.50
2	12.00	15.00
3	18.00	22.50
4	24.00	30.00
5	30.00	37.50
6	36.00	45.00
7	42.00	52.50
8	48.00	60.00
9	54.00	67.50
10	60.00	75.00
11	66.00	82.50
12	72.00	90.00
13	78.00	90.00
14	84.00	90.00
15	90.00	90.00
Each Additional Hour	6.00	-0-

UNIVERSITY CENTER FEE

University Center Fees are as follows:

\$15.00 per student, each regular session; \$7.50 each summer session.

DEGREE APPLICATION FEE

A \$12.00 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 according to the specific dates listed under Application for the Degree. 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 exemption⁹ are not exempt from payment of this fee.

⁷See the Exemption from Tuition and Fees in this section of the catalog.

⁸The General Fee is authorized by statute for use and availability of University buildings and facilities.

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THESIS BINDING FEE

A fee of \$10.00 per copy is charged for binding the two official copies of the thesis to be filed with The University.

LATE REGISTRATION FEE

A late registration fee of \$5.00 is charged for the first day of late registration, and an additional \$2.50 per day is assessed 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 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

BAD CHECK CHARGE

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

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 \$3.00 is made for each UT San Antonio transcript to be processed and mailed within 48 hours. A charge of \$5.00 is required if the transcript is to be provided within 1 hour. 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.

COMMPUTER USE FEE

In certain courses a computer use fee of \$20.00 may be charged. The maximum fee is \$20.00 per semester. When a computer use fee is charged, the schedule of classes indicates the associated fee.

⁹See the Exemption from Tuition and Fees in this section of the catalog.

¹⁰Borrowing and fine regulations of the John Peace Library are available in the Library.

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.

All auditors of courses must register their vehicles and obtain parking permits from the University Police Traffic Office.

PARKING FEES

All vehicles parked on the campus must be in compliance with the *UTSA Parking and Traffic Regulations*. Copies of these regulations are available during registration, and in the University Police office and Bursar's office.

Parking fees for students are as follows:

Class G	\$15.00 General parking permit, if purchased during the fall semester 7.00 General parking permit, if purchased during the spring semester 2.00 General parking permit, if purchased during the summer session
Class C	\$ 8.00 Motorcycle, motor scooter, motorbike parking permit, if purchased during the fall semester 4.00 Motorcycle, motor scooter, motorbike parking permit, if purchased during the spring semester 2.00 Motorcycle, motor scooter, motorbike parking permit, if purchased during the summer session 2.00 Bicycle parking permit, if purchased any time during the academic year
Class M	\$10.00 Mini-car if purchased during the fall semester \$ 5.00 Mini-car if purchased during the spring session \$ 2.00 Mini-car if purchased during the summer session
Class P/S	Carpool fees vary by semester and by number of primary vehicles in carpool.

Handicapped parking permits are available upon presentation of acceptable medical proof that the operator or regularly transported student is currently disabled. Application

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for a Handicapped parking permit must be made in the University Police Traffic office. Disabled veterans with 60% disability and presenting their current license plate receipt shall not be required to pay a parking fee when registering their vehicle. Permanently disabled students who are unable to walk without the aid of a wheelchair or other mechanical device shall not be required to pay a parking fee but must present a copy of the County Handicapped Qualification in order to be eligible for a Handicapped parking permit.

Refunds for unused portions of parking permits must be requested on the "Refund Request Form" available in the University Police Traffic office. Refunds will be made in accordance with the current UTSA Parking & Traffic Regulations, Article II, Subdivision II, Section 7.

The University Police office reserves the right to deduct enforcement fees from any refund due the student.

Refer to the *UTSA Parking and Traffic Regulations* for information regarding the registration of more than one vehicle.

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 a physical education activity class. Lockers, locks, and towels are provided.

STUDENT GYMNASIUM AND FACILITY USE FEE

Students not registered for a physical education activity class who desire to use a locker and a lock may obtain it by paying a fee of \$2.00 for a semester or summer session or any part thereof. Towels are not provided.

TENNIS CENTER FEE

Students registered for an HPE activity class and those students who have paid the gymnasium and facility use fee may use the Tennis Center. In addition, dependents of full-time students, UTSA full-time faculty and staff and their dependents, and the general public may use the Tennis Center at specified hours and are charged fees according to the schedule listed below. By paying the Tennis Center fees, the person is entitled to use any of the other athletic facilities.

Student Dependents. The spouse and children of full-time students are entitled to use the Tennis Center and all other athletic facilities according to the schedule listed below. A full-time graduate student is one enrolled for at least 9 semester hours in the fall or spring semester and for 3 semester hours in a five-week summer session or 5 hours in a ten-week summer session.

CATEGORY	ANNUAL FEE
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1. Full-time student spouse	\$6.00 per semester or entire summer
2. Full-time student child	6.00 per semester or entire summer

Lockers and locks are provided. In order for a spouse or child to use the Tennis Center, the student, faculty or staff member must first pay his/her use fee. Children must be accompanied by a parent or guardian.

UTSA Personnel and Dependents. Full-time faculty and staff desiring to use the Tennis Center and all other athletic facilities are charged fees under the following schedule:

CATEGORY	ANNUAL FEE
1. Faculty-staff member	\$12.00
2. Faculty-staff spouse	12.00
3. Faculty-staff child	12.00 (maximum of \$40.00 per family)

General Public and Guests. The general public and guests of UTSA students and personnel may use the Tennis Center at certain hours for \$1.50 per person for a 1-1/2 hour reservation. Part-time faculty and staff, and dependents of part-time faculty, staff and students are also in the category of general public. The University of Texas Health Science Center at San Antonio faculty/staff/students and The Institute of Texan Cultures employees are also classified in the category of general public. The University reserves the right to give the general public lowest priority in use of the Tennis Center. General public and guest fees are payable at the Tennis Center office.

UTSA FACULTY AND STAFF GYMNASIUM AND FACILITY USE FEE

Faculty and staff gymnasium and facility use fees are required. Faculty and staff (including guests) desiring the use of the Convocation Center and Gymnasium and other recreational facilities (excluding Tennis Center) may use the facilities, at specified hours only, and are charged fees according to the following schedule. Lockers and locks are provided. In order for a spouse or child to use the facilities, the student, faculty, or staff member must first pay his/her use fee. Children must be accompanied by a parent or guardian.

CATEGORY	ANNUAL FEE
A. UTSA Personnel	
1) Faculty-staff member	\$12.00
2) Faculty-staff spouse	6.00
3) Faculty-staff child	3.00 (maximum of \$25.00 per family)
4) Student spouse	3.00
5) Student child	1.00
B. Guest Fee	\$ 1.00
Guest of UT San Antonio student, faculty member, or staff member	

These fees are non-refundable.

DUPLICATE FEE RECEIPT

A service charge of \$2.00 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.

DUPLICATE CLASS SCHEDULE

A service charge of \$2.00 is assessed for the issuance of a duplicate class schedule. This charge must be paid at the time the application for a duplicate class schedule is made.

CAREER PLANNING AND PLACEMENT REGISTRATION FEE

UT San Antonio students and alumni interested in a credential file for employment purposes or for application to graduate or professional school, are invited to use the services of the Career Planning and Placement Center. There is no registration fee for students currently attending UT San Antonio. There is a \$3.00 fee for alumni who are interested in using the Career Planning and Placement Center services after leaving UT San Antonio. Active registrants may make use of the full range of services offered by the Center, e.g., on-campus interviewing, part-time job service, resume and interview seminars, vacancy listings, direct job referral, and duplication and mailing of credential file materials to prospective employers.

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. Nonstudents and alumni will be charged an annual \$5.00 registration fee. The registrant receives the preparation, duplication and maintenance of three sets of credentials. A handling fee of \$5.00 plus copying charges will be assessed for each additional set requested.

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 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 and the fees to which such exemptions apply 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 will be 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 of the term in which they plan to utilize the exemption provision.

DESCRIPTION	ELIGIBILITY	FEES EXEMPTED
Accredited School Scholarship	Highest ranking graduate of an accredited Texas high school	Tuition during first two semesters (long session) following graduation

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DESCRIPTION	ELIGIBILITY	FEES EXEMPTED
Texas Ex-Servicemen	<ul style="list-style-type: none"> (1) Resided in Texas for 12 months prior to registration (2) A bona fide legal resident of Texas at time entered service (3) Served in armed forces in World War I, World War II, Korean Conflict, or the Cold War 	Tuition Laboratory fees Supplementary fees General fee
Children of Disabled Texas Firemen and Peace Officers	<ul style="list-style-type: none"> (4) Honorably discharged (5) Not eligible for Federal Educational benefits 	Tuition Required fees
Blind and Deaf Students	For children under 21 years of age of disabled full-paid or volunteer firemen, full-paid municipal, county, or state peace officers, or custodians of the Department of Corrections, or game wardens	Tuition Required fees General Property Deposit
Children of Texas Veterans	A blind disabled person, or a person whose sense of hearing is nonfunctional	Tuition Laboratory fees Supplementary fees General fee
Good Neighbor Scholarship	For children of members of the armed forces who were killed in action in World War II, Korean Conflict, or the Cold War, and to orphans of members of the Texas National Guard killed since January 1, 1946, while on active duty. Children cannot be eligible for Federal Educational benefits.	Tuition Required fees General Property Deposit
Firemen Enrolled in Fire Science Courses	<ul style="list-style-type: none"> (1) Native-born students from other nations of the American hemisphere—limited to 235 students each year (2) Furnish certified evidence of native-born citizenship and scholastic qualifications 	Tuition Required fees General Property Deposit
	Enrolled in course offered as part of fire science curriculum	Tuition Laboratory fees Supplementary fees General fee

NOTE: Required fees include laboratory fees, supplementary fees, the general fee, student services fee, and the University Center fee.

Children of Prisoners of War or Persons Missing in Action	Dependent person under 25 years of age who receives ma- jority of support from parent. Parent classified by Department of Defense as a Prisoner of War or Missing in Action at the time of registration	Tuition Required fees
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NOTE: Required fees include laboratory fees, supplementary fees, the general fee, student services fee, and the University Center fee.

REFUND POLICY AND ADJUSTMENT OF FEES FOR STUDENTS WITHDRAWING, ADDING, OR DROPPING COURSES

A student who officially withdraws from The University prior to the first class day will be refunded 100% of collected tuition and returnable fees.

In a semester, upon surrender of the student identification card, a student withdrawing officially a) during the first five class days receives a refund of 80 percent of the applicable portion of the tuition and fees; b) during the second five class days, 70 percent; c) during the third five class days, 50 percent; d) during the fourth five class days, 25 percent; e) after the fourth five class days, no refund.

Summer terms are considered as one session for refund/drop purposes. If courses are to be dropped in either term, please refer to census dates for refund purposes. A student who wishes to withdraw from the summer session must withdraw from the total courses registered for in both terms of the summer session. In the summer session, a student withdrawing officially a) during the first, second, or third class day receives a refund of 80 percent of the applicable portion of the tuition and fees; b) during the fourth, fifth, or sixth day, 50 percent; c) the seventh day of class and thereafter no refund.¹¹

A student who enrolls in The University for a given term and who is subsequently required to withdraw because of academic dismissal the previous term, receives a refund of all tuition and fees.

Refunds of tuition, applicable fees, general fees, and student service fees are made for courses dropped within the first twelve class days in the fall and spring or within 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 was registered provided the student remains enrolled for the semester or term. Tuition and applicable fees for added courses are collected daily, net of dropped courses, during the add/drop period.

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

No refunds are made until 15 days have elapsed from the census date. 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 days 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 re-admission 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 any 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 non-payment of tuition and fees.

¹¹These refund percentages are applicable to tuition, the supplementary fees, the general fee, laboratory fees, University Center fee, and the student services 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 *Institutional Rules on Student Services and Activities*.

The Regents' *Rules* and the *Institutional Rules on Student Services and Activities* 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 *Institutional Rules on Student Services and Activities* may be obtained in the Office of the Dean of Students.

STUDENT ACTIVITIES

Student activities revolve around a variety of student organizations reflecting the social, service, cultural, political and academic interests of the diverse student community. Student activities are designed to enhance classroom education, to assist students in developing leadership qualities, to develop interpersonal skills and to create a stimulating campus environment.

Programs coordinated from the Student Activities Office include the UTSA Alumni Association and University Center Programs and Student Activity Calendar. The *Student Handbook*, *Student Organizations Guide*, and *Parliamentary Procedure Simplified* are publications made available through this office. An inner-campus message center for registered student organizations is located by the Student Activities office.

STUDENT HEALTH SERVICES

The application for admission to The University of Texas at San Antonio includes a Health Information Form. This form must be completed by the student 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 students.

Services offered include individual sessions for personal, educational, and vocational concerns as well as services to couples with relationship difficulties. Group sessions are offered on a regular basis on topics such as assertion training, personal growth, and weight control.

In addition, self-help cassette tapes are available for listening in person or by phone on a variety of topics ranging from friendship-building to suicidal crisis.

Counseling psychologists in the Center deal with a variety of student concerns and utilize counseling techniques, psychological assessment, and other aids to assist students. 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, achievement tests, and intelligence tests may be scheduled by appointment in the Testing Center.

FINANCIAL AID

Programs to assist students and parents in financing an education at UT San Antonio are administered by the Office of Student Financial Aid. Students may apply for financial assistance through scholarship, grant, work study and loan programs.

Eligibility for the majority of financial aid programs is determined through an analysis of a family's financial need. This analysis is made after the student completes and submits a financial statement to an agency approved by the Federal government. Before a student can be considered for most forms of financial aid, he or she must:

1. be officially admitted to The University;
2. file a financial statement with an approved agency;
3. file a UT San Antonio Application for Financial Aid with the Office of Student Financial Aid; and
4. meet deadlines set by the Office of Student Financial Aid.
5. Student must make satisfactory academic progress to fulfill student financial aid requirements.

Financial aid programs available to graduate students include College Work Study, Texas Public Education-State Student Incentive Grant; the National Direct Student Loan, Teacher Education Loan, Future Teacher Loan, several Guaranteed Student Loan programs, and various scholarships.

Most of these financial aid programs have a limited amount of funds which are granted on a first-come, first-served basis. Therefore, students are strongly encouraged to complete their application by March 31st of each year.

Application forms and detailed instructions on applying are available through the Office of Student Financial Aid.

CAREER PLANNING AND PLACEMENT CENTER

The Career Planning and Placement Center offers a variety of services and programs in response to the placement needs of UT San Antonio students and alumni.¹

To assist students in career development activities, the Center provides information on employment opportunities related to their college majors.

This information includes an annual report on the placement activities of UT San Antonio graduating students, average starting salary, the type of positions accepted, and, when available, the relationship between fields of study and accepted positions.

The Center provides the following services: part-time and summer employment opportunities; career placement for students and alumni after graduation; and assistance in the selection of graduate or professional schools. Students and alumni may establish

¹Fees for services of the Career Planning and Placement Center are set forth in Section III of this catalog.

a placement file and use the on-campus interview schedule to meet with representatives from business, industry, and government to explore professional employment opportunities.

Placement programs available at the Center are designed to assist all students in the development of effective job hunting skills and methods, e.g., effective letter writing, launching broadcast mail campaigns, resume development, and interview-skills training. Students are seen on a "drop-in" or appointment basis at the Career Planning and Placement Center.

Students and alumni are encouraged to use the career, vocational, and educational counseling services of the Center and its Career Resource Library. Students who have not decided which college major they wish to pursue may participate in the life planning workshops, value clarification labs, decision-making seminars (labs) and career exploration symposia offered by the Center. Vocational testing, including aptitude and interest inventories, is also available.

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.

INTERCOLLEGIATE ATHLETICS

UT San Antonio fields mens' and womens' teams for intercollegiate competition in Division I of the NCAA. Mens' sports include: cross country, basketball, indoor track, volleyball, outdoor track, tennis, golf and rifle. Womens' sports include: cross country, volleyball, basketball, outdoor track and tennis.

INTRAMURAL AND RECREATIONAL ACTIVITIES

UT San Antonio offers a wide range of intramural programs and recreational activities. The facilities available in the Convocation Center and the Physical Education Building include gymnasiums for basketball and volleyball, weight machines, badminton and shuffleboard courts, and a jogging path. Also available is the 400-meter synthetic track with a grass playing infield and a tennis center. Students are able to participate in tennis, track, volleyball, badminton, shuffleboard, table tennis, softball, soccer and touch football.

LIVING ACCOMMODATIONS

A limited amount of on-campus housing is scheduled to be completed in Fall 1986. Information is available in the Office of the Dean of Students. Additionally, an off-campus housing directory is available in the Division of Student Services to assist students in finding living accommodations in the San Antonio community.

²Fees for the Teacher Placement Service are set forth in Section III of this catalog.

IDENTIFICATION CARDS

Student identification cards are mandatory. The card is non-transferable. 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, 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 the disclosure, review, release, and confidentiality of student records under the Family Educational Rights and Privacy Act of 1974, 20 U.S.C. Section 1232g, consult the *Institutional Rules on Student Services and Activities* 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 and with the academic advisement and registration procedures. This program is planned and implemented through the Division of Student Services.

LOST AND FOUND

All abandoned articles found on The University campus are turned in to the University Police office. Items can be claimed upon proper identification of ownership. Any article not claimed within sixty (60) days will be turned over to the Business Manager for final disposition.

HANDICAPPED STUDENTS

Handicapped students requiring special assistance should contact the Division of Student Services.

INTERNATIONAL STUDENTS

Foreign students who are enrolled at UT San Antonio should contact the Division of Student Services for assistance.

THE UNIVERSITY CENTER BUILDING

The University Center Building, located on the West paseo between the Humanities Business Building and the Physical Education Building, is scheduled for completion in spring 1986. The two-story building will house a lounge, cafeteria, recreation room, television rooms, and a cafe. Additionally, a large multi-purpose room, meeting rooms, and print shop are facilities to be offered in the center. A student activity complex on the second floor will provide office space for the University Center Program Council, Student Representative Assembly and work space for student organizations.

V. ADMISSION REQUIREMENTS

ADMISSION

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

ADMISSION AS A GRADUATE DEGREE-SEEKING STUDENT

A graduate degree-seeking student is one admitted to a graduate degree program. Some graduate degree programs specify additional admission requirements. The applicant should refer to the specific degree descriptions for any admission requirements in addition to the university-wide requirements listed here.

Unconditional Admission. Every Master's degree program at The University of Texas at San Antonio is based on the assumption that the students participating in it already possess a general college education to the baccalaureate degree level. In order to be eligible for unconditional admission to UT San Antonio as a degree-seeking student at the graduate level, an applicant must: (1) hold a baccalaureate degree from a regionally accredited college or university in the United States or have proof of equivalent training at a foreign institution; (2) have a "B" average (3.0 on a 4.0 scale) in the last 60 semester hours, or the equivalent, of course work for the baccalaureate degree as well as in all graduate level work previously taken; (3) have completed a minimum of 18 semester hours (12 of which must be upper-division) in the area in which the graduate degree is sought; (4) be accepted into the degree program;¹ (5) be in good standing at the last institution attended; and (6) submit scores from the Graduate Record Examination Aptitude Test (GRE) or, for those applying for the Master of Business Administration program, scores from the Graduate Management Admission Test (GMAT). These scores will be used as one element in the evaluation of applicants. Information on the GRE and GMAT and applications for the tests may be obtained from the Educational Testing Service, Princeton, New Jersey 08540. The institution code for The University of Texas at San Antonio is 6919-5 for the GRE and 6919 for the GMAT.

Conditional Admission. An applicant desiring to work toward a graduate degree in an area in which his or her previous preparation is insufficient to permit unconditional admission may be admitted conditionally to the graduate degree program with the stipulation that course work or other study as determined by the appropriate Committee on Graduate Studies, the Division Director, and the Dean, will be undertaken to remove deficiencies and that such make-up work will be in addition to the regular degree requirements. Any conditions placed on the student's admission are stated in the admission notice. An individual seeking admission as a graduate degree-seeking student whose grade-point average is less than that specified for unconditional admission may be admitted conditionally to a graduate degree program upon the recommendation of the appropriate Committee on Graduate Studies, the Division Director, and the Dean, who will assign conditions regarding the number of semester hours to be taken and the minimum grade-point average to be maintained before unconditional status may be attained. In no case may the grade-point average condition be lower than that required for a student to remain in The University as a graduate (degree-seeking, or special) student. (See the section on Academic Standing.) The student is expected to remove conditions by the end of the first full semester of enrollment. If they are not

¹An individual review of the applicant's background is made by the appropriate Committee on Graduate Studies, the Division Director, and the Dean for the program to which admission is being sought. A committee may be appointed to examine a student in his or her previous preparation before an application to enter the program is approved. No student is admitted in the absence of a favorable recommendation by the appropriate Committee on Graduate Studies, the Division Director of the program, and the Dean of the College.

met, the student may be barred from continuation in the graduate program. An applicant who fails to meet the requirements for unconditional admission and is admitted on a conditional basis may be admitted on academic probation.

If an applicant is not eligible for either unconditional or conditional admission, the applicant is denied admission as a graduate degree-seeking student. The appropriate Committee on Graduate Studies, the Division Director, and the Dean may recommend the applicant's admission or denial of admission as a Special Graduate Student (see below).

Note: For Teacher Certification a student must obtain admission as either a graduate degree-seeking student or a special graduate student.

ADMISSION AS A SPECIAL STUDENT AT THE GRADUATE LEVEL

A special student at the graduate level is one admitted to The University for the purpose of enrolling in graduate and/or undergraduate courses without entering a degree or certification program. All academic requirements of this catalog apply to special students. An applicant who does not elect to enter a graduate-level degree program must seek permission to be admitted to one of the colleges of The University. Special graduates seeking permission to take graduate courses in the College of Business must meet the same admission criteria as those students applying for admission to the graduate degree-seeking programs in the College of Business. To be eligible for admission as a special student at the graduate level, an applicant must: (1) be in good standing at the last institution attended; (2) possess at least a bachelor's degree from a regionally accredited college or university or an equivalent degree from a foreign institution; and (3) have grade-point averages of 3.0 or higher (on a 4.0 scale) in the last 60 hours of academic course work prior to receipt of the highest degree and 3.0 or higher in all academic course work since the degree.

Special students at the graduate level are eligible to take any graduate or undergraduate courses for which they have the necessary prerequisites, provided space is available, they have the approval of the course instructor, and permission from the Dean of the college in which the courses are taught. Students who wish to take a course in a college other than that to which they have been admitted must obtain the signed approval of the Dean of the college in which the course is taught. Students holding bachelor's degrees who are admitted as special undergraduate students may enroll in undergraduate courses only. If they wish to take courses at the graduate level, they must apply and be admitted as special graduate students.

A maximum of 12 hours credit earned as a special student may be applied toward a Master's degree, and only when the credits earned for these courses have been evaluated and approved for this purpose by the appropriate Committee on Graduate Studies, the Division Director, and the Dean of the college offering the degree program. When teacher certification is involved, approval by the Director, Office of Teacher Certification and Placement, is required before the student enrolls, to ensure that credit earned as a special student can be applied to a graduate-level teacher certification program. Students admitted as transient and subsequently as special students may not apply more than 12 semester hours of approved credit toward a Master's degree.

To continue in The University as a special student in a subsequent term, the student must meet the standards required to remain in The University as indicated in the section on Academic Standing.

ADMISSION AS A SUMMER TRANSIENT STUDENT AT THE GRADUATE LEVEL

An applicant who wishes to enroll for a summer session only, without pursuing a degree at The University of Texas at San Antonio should apply for admission as a transient

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student. In order to qualify as a summer transient student at the graduate level, the applicant must hold at least a baccalaureate degree from a regionally accredited college or university and be in good standing at the last institution attended.

Transient students (except in the College of Business) may register for any courses for which they have the necessary prerequisites and in which space is available. However, they must have the approval of the course instructor (s) and the Dean of the college in which the course is taught. A student registered in this capacity cannot register for the following term unless he or she has been admitted as a degree-seeking or special student.

A maximum of 6 hours of credit earned while a transient student may be applied to a degree program and only when the credits earned for these courses have been evaluated and approved for this purpose by the appropriate Committee on Graduate Studies, the Division Director, and the Dean of the College offering the degree program. When teacher certification is involved, approval by the Director, Office of Teacher Certification and Placement, is required before the student enrolls, to ensure that credit earned as a transient student can be applied to a graduate-level teacher certification program. Students admitted as transient and subsequently as special students may not apply more than 12 semester hours of approved credit toward a Master's degree.

ADMISSION OF INTERNATIONAL STUDENTS

The following admission requirements apply to all applicants for admission who are not citizens of the United States or whose previous education has been outside the United States. All applicants for admission as international students must:

1. Meet the graduate admission requirements for degree-seeking students. Applicants who will be on a student visa may not be admitted other than as degree-seeking students. (An I-20 form is not issued to transient or special students.)
2. Submit scores from the Test of English as a Foreign Language (TOEFL). Students needing to take this test should write to the Educational Testing Service, Box 899, Princeton, New Jersey 08540, requesting information on taking the TOEFL. The code for The University of Texas at San Antonio is 6919. A minimum score of 550 on the TOEFL is required. Subsequent English tests and preparation may be required by a student's advisor if more work in English is necessary. TOEFL scores are not required for international students from countries where English is the primary language of instruction and the language spoken in the home by the indigenous population, nor are TOEFL scores required for non-citizens of the United States graduating from United States high schools, colleges, or universities with at least a high school diploma or a baccalaureate or higher degree.
3. Submit a statement guaranteeing the student's ability to pay all expenses while a student at The University, if attendance under the 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.
4. Have applications and supporting credentials on file in the Office of Admissions and Registrar by application deadline: Fall, June 1; Spring, October 15; Summer, March 1.

The above admission criteria serve as guidelines for admission for international students. The credentials of each applicant are examined on an individual basis by the Admissions office, appropriate Committee on Graduate Studies, the Division Director, and the Dean responsible for the projected degree program with admission granted only to those who show promise of success in graduate study at The University of Texas at San Antonio.

ADMISSION PROCEDURES FOR TEACHER CERTIFICATION OR FOR CERTIFICATE ENDORSEMENTS AT THE GRADUATE LEVEL

Applicants who desire to work on teacher certification requirements and who hold a Bachelor's degree should apply for admission to the Division of Education in one of the categories described above — graduate degree-seeking student or special graduate student (not special undergraduate student). When unconditional admission has been granted, the student should apply to the Office of Teacher Certification, for an analysis of his transcripts and for an official outline of a program that will insure meeting the requirements to obtain a teacher's certificate or a certificate endorsement. In some cases it may be possible to meet certification requirements within a degree program; in other cases the student may need to take additional work for the certificate beyond that required for the Master's degree. The student's Program Advisor and the Office of Teacher Certification will assist the student in planning an appropriate program of study. Recommendations for teacher certification (to the Texas Education Agency) are made by the Office of Teacher Certification only after all requirements have been met and the student has officially requested such recommendation.

A brochure summarizing Education Certificate and Endorsement Requirements is available from the Office of Teacher Certification in the Division of Education.

APPLICATION DATES

Students applying for admission as degree-seeking, special, or transient students may apply for admission as early as nine months before the beginning of the term in which they wish to begin graduate study. Because of the time needed to prepare graduate summaries, students are encouraged to have their admission file complete at least one month or more prior to the application deadline. Application forms and instructions are available from the Admissions Office. The completed application form and all required supporting documents must be on file with the Admissions Office by August 1 for the Fall Semester, December 1 for the Spring Semester, and May 1 for the Summer Sessions. Failure to comply with these admission deadlines will cause deferment of admission until a subsequent term.

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, required transcripts, etc.) are on file in the Admissions Office, in accordance with admission deadlines, since admission is not considered 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 applicants who do not register are not retained.

DECLARATION OF PREVIOUS COLLEGE WORK ATTEMPTED

Students are not at liberty to disregard previous college work attempted. All students transferring to The University of Texas at San Antonio must list *all* colleges attended on their UT San Antonio application for admission. Failure to do so will result in disciplinary action against the student, including the possibility of permanent dismissal.

RE-ADMISSION POLICIES AND PROCEDURES

Former UT San Antonio students who have not been in attendance for one or more long semesters (Fall or Spring) must file an application for readmission.

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 academic status at the conclusion of the student's last UT San Antonio enrollment and any subsequent college or university work attempted.

VI. GENERAL ACADEMIC REGULATIONS

REGISTRATION

All students who attend classes at The University of Texas at San Antonio must be registered officially or must be approved as auditors. Registration instructions are included in the Schedule of Classes published for 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 admitted students to register during the allowed time indicated in the schedule of classes issued each 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 with the maximum amount being \$15.00 for any one term. This fee is non-refundable. Instructions for late registration are available at the Registrar's Office. Students are not permitted to register after the close of late registration.

Those students who register late are responsible for completing any work missed in the courses for which they enroll 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.

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, the student's advisor, and the Director of the Division in which the course is offered. A special or transient student should seek approval of the course instructor and Dean of the College in which the course is offered. A certification student [or "a student seeking certification only"] should seek approval of the course instructor and the Director, Office of Teacher Certification and Placement. After the first week of classes and through the twelfth class day of any semester, or on the third of fourth class day of any summer term, the additional approval of the Dean of the College in which the course is offered is required. A special or transient student and a certification student [or "a student seeking certification only"] should seek the additional approval of the Dean of the College in which the course is offered. 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. 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 nine weeks of a semester or the first three weeks of a summer term 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.*

Students may not drop an individual course later than the last day of the ninth week of classes or the first three weeks of a summer term.

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

During the first nine weeks of a semester or the first three weeks of a summer term, the instructor may drop a student from class for non-attendance. The student will receive a grade of "W". After these periods, the instructor may recommend to the Dean that a student be dropped from class when the instructor can show that unusual circumstances exist to warrant such action. The Dean, with the approval of the Vice President for Academic Affairs, may drop a student from class; the student will receive a grade of "W" if the student was passing at the time of the drop or a grade of "F" if the student was failing at the time of the drop.

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 not be obtained and fees paid until 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 term, 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.

ACADEMIC STANDING

A student's academic standing, whether the student is degree-seeking, certificate only, special or transient, is defined as: good standing, academic probation, academic dismissal.

Good standing is the absence of any contingency that would result in the student's being on academic probation or academic dismissal.

Academic probation describes the standing of a student at the graduate level who is in one of the following categories:

- 1) a student who fails to achieve a grade-point average in any term at UT San Antonio of 3.00 or higher, irrespective of level of courses taken;
- 2) a student who receives a grade of "D" or "F" in any course in a term;
- 3) a student who does not meet all requirements for unconditional or regular admission and who, by special action, is admitted on academic probation;
- 4) a student who has been reinstated following academic dismissal.

Academic probation is cleared only when none of the above criteria apply and when the student achieves an overall grade-point average of 3.00 in graduate-level courses taken at UT San Antonio. Students on academic probation are encouraged to discuss their status with their academic advisors.

Academic dismissal occurs:

- 1) when a student at the graduate level earns a grade-point average in any term of less than 2.00; or
- 2) when a student at the graduate level who is on academic probation during a term would again be placed on academic probation under the provisions of academic probation set forth above. If, however, the student's UT San Antonio grade-point average for the term is at least 3.00, he/she will be continued on academic probation.

CANCELLATION OF ENROLLMENT

Any student who fails to fulfill admission, registration, or financial 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.

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 nine weeks of a semester or during the first three weeks of a summer term, will receive a grade of "W" for each course in which he/she was enrolled. Students who officially withdraw after the first nine weeks of classes in a regular semester or after the first three weeks 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 may not withdraw from The University later than the last day of the week preceding final examinations. 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, readmission policies, and requirements for maintaining registration.

PETITION FOR REINSTATEMENT

A student who has been dismissed academically may petition for reinstatement. A letter containing all explanations, recommendations, or doctors' statements in support of the student's request for reinstatement should be submitted to the Vice President for Academic Affairs at least one week prior to the beginning of the term in which reinstatement is sought.

If the Petition for Reinstatement is disapproved, the student may not file another petition until the following semester.

GRADUATE STUDENT CLASSIFICATION SYSTEM

Degree-Seeking Student: A student who is admitted to a graduate degree program.

Special Graduate Student: A student who is admitted for the purpose of enrolling in graduate and/or undergraduate courses in one or more Colleges of The University without entering a degree program.

Summer Transient Graduate Student: A student who registers for courses in the summer session only and who does not intend to work toward a degree at UT San Antonio.

NOTE: A graduate student who desires to work on a program to meet the requirements for Teacher Certification or for a certificate endorsement must be admitted as either a degree-seeking or special graduate student. He/she must then apply to the Office of Teacher Certification for an official analysis of the requirements that must be met before he/she can be recommended for certification.

DEFINITION OF A FULL-TIME AND PART-TIME GRADUATE STUDENT

A full-time graduate student (degree, special, or transient) is one enrolled for nine or more semester hours of graduate credit during a regular semester or for three or more hours of graduate credit during each summer term, or for five or more hours of graduate credit during an entire summer session.

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 and 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 6 are graduate courses. The second and third digits are used within the Colleges by each Division to distinguish individual courses. The fourth digit indicates the semester hour value of the course.

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

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.

REPEATING COURSES

Only those courses listed in the catalog in which the course description specifically indicates "may be repeated for credit" may be repeated with both credit hours and grade points earned being counted. *Students at the graduate level may not repeat courses for the purpose of raising a grade.*

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).

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 and credits earned by examination are not included in the UT San Antonio grade-point average.

Grade symbols and grade points.

<i>Symbols</i>	<i>Grade Points</i>
A	4
B	3
C	2
D	1
F	0
CR	0
EP	0
W	0
IN	0
NR	0
RP	0

EXPLANATION OF GRADE SYMBOLS

"A" through "F." A = Outstanding; B = Above average; C = Average; D = Below average but passing; 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 Procedures" in this section of the catalog.

"W" or "Withdrawal." The symbol "W" is used to indicate that after the add/drop period a student voluntarily and officially has dropped a course, has ceased to attend a course without officially dropping it, or was dropped from a course by the instructor. After the "automatic W period," the symbol "W" indicates that the student was passing the course at the time of dropping, ceasing to attend, or being dropped.

"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 no later than the end of the final exam period, one year from the semester the incomplete was received, and before the student's graduation. 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.

The time limit does not apply to graduate level thesis or internship courses, except that an "Incomplete" cannot be removed after a degree is awarded. The time limit does apply to all other graduate courses, including Special Problems and Independent Study courses.

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.

"RP" or "Research in Progress." The symbol RP may be used to denote research in progress, only for ACC 6963, ART 6846, MUS 6913 and for Master's Thesis in those areas where a thesis is available. When the project or thesis is completed the RP will be changed to a letter grade up to the maximum number of semester credit hours approved for the specific degree.

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 to students 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 provisions 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 Dean and the Director of the Division in which the course is offered before the Registrar will make the change on the student's record.

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 is changed to "F."

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 responsibility to set and to communicate to students the attendance requirements for each course. The degree to which classroom participation is required and whether or not work missed by a student during his 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 recommended that the student be dropped from the course. 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 will be 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.

CHANGE OF MAJOR OR DEGREE

A student who wishes to change his or her major or degree objective must obtain the required forms at the Registrar's Office. The change is not official until the student is admitted to the new degree program, certification program, or classification.

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 that a student should 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 faculty member may initiate disciplinary proceedings through the Division Director, the Dean of the College, and the Dean of Students.

TRANSCRIPTS

Official transcripts of all course work taken at The University of Texas at San Antonio are available at the Registrar's Office. Requests must be in writing and must bear the signature of the student whose record is requested. A fee is charged for each copy 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 as an official transcript. Requests for unofficial copies of transcripts from other institutions may be made in accordance with the open record laws by filling out the required forms in the Registrar's Office and paying the fee.

Request for official transcript service will not be honored 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 under the Family Educational Rights and Privacy Act of 1974 and when payment of the appropriate fee is made. Exceptions may be made in response to a subpoena or court order, under other circumstances as allowed under the Family Educational Rights and Privacy Act of 1974, 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 change requests should be supported by appropriate legal documentation, except that upon marriage a student may declare the newly taken name.

CHANGE OF ADDRESS

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

VII. MASTER'S DEGREE REGULATIONS



UNIVERSITY-WIDE REQUIREMENTS FOR THE MASTER'S DEGREE

In order to receive a Master's degree from UT San Antonio, the following minimum requirements must be met:

1. The student must be admitted as a degree-seeking student for the degree sought;
2. The student must remove all conditions of admission, if any were assigned at the time of admission;
3. The student must apply for and be admitted to candidacy for the degree;
4. Subject to the six-year time limitation, the student must complete satisfactorily all course work as specified in his or her Program of Study, and, if Option I is selected, must complete satisfactorily the thesis as outlined in the Requirements for Thesis section of this catalog;
5. The student must formally apply for the degree and pay the required fee in the Registrar's Office no later than the deadline for the semester in which he/she intends to graduate. Deadlines are published in all class schedules;
6. The student must complete satisfactorily the comprehensive examination, except as provided for the M.B.A. degree;
7. The student must meet the grade-point average requirement of 3.00 or higher (on a 4.00 scale) in all work counted as part of the degree program;
8. No courses in which grades of less than "C" were earned may be applied to a graduate degree, nor may courses for which the grade of "CR" was earned by examination be applied to minimum degree requirements;
9. The student must be in good standing at the close of the semester of graduation.

Detailed descriptions of each of the above requirements are included in this catalog.

TRANSFER OF CREDIT

Ordinarily all work for the Master's degree must be done at The University of Texas at San Antonio. Transfer credit of usually not more than six semester hours may be allowed for *graduate course work* completed at another accredited institution upon the approval of the appropriate Committee on Graduate Studies, the Division Director, and the Dean of the College in which the major area is located. The Registrar's Office evaluates transcripts and designates which graduate courses are acceptable under the above provisions for transfer toward a Master's degree at UT San Antonio. Whether or not a course is transferable as graduate course work is determined by the course number assigned by the institution awarding the credit. To be transferable to UT San Antonio, courses must be defined as graduate courses at the institution where credit was earned. Courses which are defined as upper division by their course numbers, but which can be applied to a graduate degree at the institution awarding the credit, are not accepted for transfer toward a Master's degree at UT San Antonio. Upon petition by the student and recommendation of the appropriate Committee on Graduate Studies, the Division Director, and the Dean, a maximum of one-third of the semester hours of course work (exclusive of thesis) required for a degree at UT San Antonio may be accepted as transfer credit for the degree. All work submitted for transfer credit must have been completed with grades of "A" or "B" and must have been completed no more than six years before the degree is awarded.

It is the policy of The University of Texas System that all academic institutions within the System may accept graduate credit from each other, and the regular requirements on residency are adjusted accordingly. The applicability of specific courses from other University of Texas institutions to a student's graduate degree program at UT San Antonio, however, must be approved by the appropriate Committee on Graduate Studies, the Division Director, and the Dean.

CREDIT BY EXAMINATION

Credit by Examination at UT San Antonio is designed to enable students, who may already have achieved the objectives of certain courses leading to a *baccalaureate* degree, to receive credit for these courses. Credit cannot be earned by CEEB examination or by UT Challenge Examination for any courses used to meet minimum requirements for a graduate degree or graduate teacher certification program. Graduate degree-seeking students in the College of Business or in the Division of Environmental Studies may *challenge* by examination any UTSA graduate-level "professional" or "background" course that is required *in addition to minimum degree requirements*. (See the UTSA Credit by Examination brochure.)

CORRESPONDENCE AND EXTENSION COURSES

Courses completed by correspondence or by extension may not be applied to a graduate degree program.

COURSES COUNTED FOR ANOTHER DEGREE

No courses counted toward another degree may be applied to a graduate degree, either directly or by substitution. The only exception is that persons holding a Master of Arts degree in Art from another institution seeking admission to the Master of Fine Arts degree program, may have up to 24 semester hours applied toward the M.F.A. degree *exclusive of the thesis and/or degree project upon recommendation of the Division Committee on Graduate Studies and approval of the Dean of the College*. Work done for the Master's degree may be included in the work for the doctoral degree, when it is offered, provided it is acceptable to the candidate's Supervising Committee, the appropriate Committee on Graduate Studies, the Division Director, and the Dean.

LIMITATION ON UNDERGRADUATE CREDIT COUNTED TOWARD A MASTER'S DEGREE

With the approval of the appropriate Committee on Graduate Studies, the Division Director, and the Dean of the College in which the student expects to earn his/her degree, a candidate for the Master's degree may apply a maximum of six semester hours of credit for upper-division (junior or senior) courses completed at UT San Antonio with the grades of "A" or "B" to a Master's degree; no courses below the upper-division level or with other grades may be applied to the degree.

CATALOG OF GRADUATION

Graduate students have six years to complete a graduate degree program under the catalog in effect at the time of admission to the graduate program provided they are continuously enrolled at UT San Antonio. If a student drops out for one or more long semesters, he/she has the option of re-enrolling under a subsequent catalog. These students will have six years to complete degree requirements under the new catalog. In the event that certain required courses are discontinued, substitutions may be authorized or required by the appropriate Committee on Graduate Studies, the Division Director, and the Dean.

ADMISSION TO CANDIDACY

All students seeking the Master's degree at UT San Antonio must file the Application for Admission to Candidacy with the Dean of the College in which the degree program is located. Admission to Candidacy is a degree requirement. The Application for Admis-

sion to Candidacy normally should be filed at the end of the first semester of full-time graduate study or upon completion of the first 12 hours of graduate work.

In order to be admitted to candidacy, the student must comply with the following requirements:

1. Complete all conditions of admission, if any were assigned at the time of admission;
2. Complete all special admission requirements for the degree program, if any;
3. Be in good standing;
4. Have an acceptable Program of Study;
5. If a thesis is to be written, the supervising professor and thesis committee must be selected and the thesis topic must be acceptable;
6. Be recommended for admission to candidacy by the appropriate Committee on Graduate Studies and the Division Director;
7. Be approved for admission to candidacy by the Dean of the College in which the degree program is offered.

The Dean, or a committee appointed by the Dean, may examine the student on his/her preparation in the major area and related subjects and may require him/her to make up any deficiencies before the Application for Admission to Candidacy is approved. The examination may be oral and/or written at the discretion of the examiners.

COMPREHENSIVE EXAMINATION

A candidate for a Master's degree, other than candidates for the M.B.A. degree who complete MGT 5903 with a grade of B or better, must, in addition to all other requirements, pass a comprehensive examination which may be oral or written or both. The examining committee is appointed by the Dean of the College in which the degree is offered. Comprehensive examinations are given only to those students who have been admitted to candidacy for the degree. Students must be registered during any semester or summer term that they are taking required examinations.

OPTIONS FOR MASTER'S DEGREES

Two options are available for most Master's Degree Programs. Students should refer to the chapter on Graduate Degree programs to determine whether a specific program offers both options.

Option I. The candidate for a Master of Arts, Master of Science, Master of Business Administration or Master of Professional Accounting degree is required to complete the required number of semester hours of credit in course work approved by the appropriate Committee on Graduate Studies, the Division Director, and the Dean, including six semester hours of credit for a thesis. The thesis is subject to approval by the student's Program Advisor, Thesis Committee, Graduate Advisor, and Dean.

Students receiving advice and assistance from a faculty member in the preparation of a thesis are required to enroll in the appropriate thesis course (if necessary, for multiple terms) until final approval of completed thesis has been given and two copies have been filed with the student's Dean.

Option II. For a Master's degree under Option II, a student can meet requirements without writing a thesis but instead is required to complete a program of course work, as indicated in Chapter VIII, approved by the appropriate Committee on Graduate Studies, the Division Director, and the Dean.

At the beginning of the student's Master's degree program he/she should, in consultation with his/her Program Advisor, select the option most suitable to his/her needs. Should a student elect to change options after being admitted to candidacy, he/she will need to apply for candidacy under the new option.

REQUIREMENTS FOR THESIS

The following steps for completing a thesis as part of the Master's degree are the responsibility of each degree candidate selecting Option I:

1. Secure the approval of the Thesis Director, who is also Chairman of the Thesis Committee. The Thesis Committee consists of the Thesis Director and two additional members of the Graduate Faculty appointed by the College Dean. The student is expected to work closely with the Thesis Director in selecting the thesis topic and in completing other details of his/her study.
2. Submit a preliminary draft for approval by the Thesis Director not later than 45 calendar days before final examinations of the term in which the degree is to be awarded. The first draft copy should be corrected, legible, and typewritten. The format of the thesis must follow University regulations. The detailed requirements are available from the College Dean.
3. Secure approval of the draft by the Thesis Committee. This step is intended to signify that the thesis meets the required standards for content, expression, format, spelling and accuracy. Candidates are responsible for meeting the standards of those reading and approving the thesis.
4. Submit the approved draft to a typist. The approved draft of the thesis is then to be typed in acceptable form.
5. Submit the final copy of the thesis to the Thesis Director and Thesis Committee not later than 20 calendar days before final examinations of the term in which the degree is to be awarded. This copy of the thesis must be the original and, if acceptable, must be signed by the Thesis Director and members of the Thesis Committee. Prior to submission of the thesis to the Dean for final acceptance, the Office of the Vice President for Academic Affairs must certify that it conforms to the format prescribed in the *Format for the Master's Thesis* and approve the method of duplication.
6. File two unbound copies, including the original, of the approved thesis with the Dean's Office at least 10 days prior to the last day of classes of the term in which the degree is to be awarded. The copies are transmitted by the College Dean to the Library, where they are bound. One copy is retained by the Library, and the other is returned to the College Dean. (A fee of \$10.00 per copy will be charged for binding the official copies of thesis.)
7. It is customary that copies of the thesis be presented to the Thesis Director and members of the Thesis Committee. Arrangements and expenses for binding of all copies are the responsibility of the student. Copyright may be arranged by the author and will be at the student's expense.

APPLICATION FOR A DEGREE

A degree candidate should apply officially for his or her degree at the Registrar's Office no later than October 1 for the Fall Semester; February 15 for the Spring Semester; July 15 for the Summer Session. The application of any student applying for graduation after the established deadlines for that semester will be processed for graduation for the following semester.

Students who apply for the degree in a given term but who do not fulfill all requirements must file a new degree application (on or before the appropriate deadlines) for the next term in which they intend to graduate. An additional application fee is required for the second and all subsequent degree applications.

GRADUATION DATES

Degrees are conferred at the end of each semester and at the end of the summer session. Formal public 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 as may degree candidates for the spring semester. Information on the procedures to be followed is available in the Registrar's Office.

ADDITIONAL MASTER'S DEGREE

A student who holds a Master's or higher degree may pursue an additional Master's degree at UT San Antonio only under the following conditions:

- 1) that the additional Master's degree opens up an additional area, field, or concentration;
- 2) that the proposed second Master's degree is approved by the appropriate Committee on Graduate Studies, the Division Director, and the Dean of the College in which the additional degree program is offered.

It should be further understood:

- 1) that the same courses cannot be applied toward two different degrees;
- 2) that credit applied to a previous degree at another institution which duplicates a portion of the program required under the second degree being sought at UT San Antonio does not reduce the number of hours required for that second degree.¹ Courses already taken would not be required. Rather, additional course work would be substituted for such previously completed courses.

TIME LIMITATION ON APPLYING CREDIT TOWARD A MASTER'S DEGREE

All credit to be applied to a Master's degree must have been earned within the six years immediately preceding the date the degree is awarded. Outdated UT San Antonio credits may be accepted upon approval of the appropriate Committee on Graduate Studies, the Division Director, and the Dean; an examination may be required as a condition for validating credit.

¹The only exception is the M.F.A. Degree. Students should refer to "Courses Counted for Another Degree" in this section of the Catalog.

VIII. SUMMARY OF GRADUATE DEGREE PROGRAMS AND SUPPORT AREAS FOR 1986-87

The following graduate degree programs are available during 1986-87.¹ Detailed requirements for each degree are found in Section IX of the present catalog.

Master of Business Administration Degree

Business
Interamerican Management

Master of Professional Accounting Degree

Master of Public Administration Degree

Master of Arts Degree

Anthropology

Bicultural-Bilingual Studies

Concentrations: (1) Bicultural-Bilingual Teacher Education
(2) Bicultural Studies
(3) English as a Second Language

Education

Concentrations: (1) Cultural Foundations of Education
(2) Curriculum and Instruction
(3) Early Childhood and Elementary Education
(4) Educational Management
(5) Educational Psychology/Counseling and Guidance
(6) Educational Psychology/Special Education
(7) Institutions of Higher Education

English

History

Spanish

Concentrations: (1) Hispanic Culture
(2) Hispanic Literatures
(3) Spanish Language

Master of Fine Arts Degree

Art

Master of Music

¹Course offerings in graduate degree programs may be postponed if enrollments or resource and space limitations do not warrant scheduling or continuation of a particular course.

Master of Science Degree

Biology

Biotechnology

Chemistry

Computer Science and Systems Design

Concentrations: (1) Computer Science
(2) Systems Design

Geology

Natural Resources

Mathematics

Concentrations: (1) Mathematics
(2) Statistics
(3) Mathematics Education

Programs leading to teacher certification or to certificate endorsements are also available, in conjunction with or independent of, Master's degrees in Education.

IX. GRADUATE DEGREE PROGRAMS AND SUPPORT COURSES

COLLEGE OF BUSINESS

The Master of Business Administration Degree is accredited by the American Assembly of Collegiate Schools of Business and conforms to its recommended guidelines.

MASTER OF BUSINESS ADMINISTRATION DEGREE IN BUSINESS

The Master of Business Administration Degree in Business is designed to offer the opportunity for intensive education to qualified graduate students and is available to individuals with undergraduate degrees in the business administration areas, as well as to those with specializations outside the business field.

Students whose previous training has been in non-business fields may be admitted to the M.B.A. Program in Business but are required as a condition of admission to complete, in total or in part, depending upon the background of each student, the courses of the common body of knowledge. Students whose background is in business but who have completed the common body of knowledge courses five or more years prior to entering the program will be required to complete successfully or test out of the common body of knowledge courses. The courses of the common body of knowledge are open only to graduate students and are in addition to degree requirements of the M.B.A. in Business.

Special Admission Requirements. For unconditional admission to the M.B.A. program in Business, applicants must meet university-wide graduate admission requirements and the following College of Business requirements:

- 1) An approximate overall average of 3.0 in all work completed at the undergraduate level,
- 2) An approximate composite score of 500 on the Graduate Management Admission Test (GMAT)¹ with results submitted to the Office of Admissions and Registrar prior to being considered for admission,
- 3) Completion of the courses of the common body of knowledge or their equivalents, and
- 4) Favorable recommendation by the M.B.A. Admissions Committee to the Dean of the College of Business.

Those who do not meet the admissions requirements will be considered on a conditional basis. All admission conditions must be removed before admission to candidacy.

The following courses of the common body of knowledge are required for students with undergraduate curriculum deficiencies; however, no credit for these courses may count toward degree requirements of the M.B.A. in Business:

ACC 5003	Financial Accounting Concepts
ACC 5023	Accounting Analysis for Decision Making
BLW 5003	Legal Environment of Business
ECO 5003	Economic Theory and Policy
FIN 5003	Administrative Finance
MGT 5013	Quantitative Methods for Business Analysis
MGT 5083	Computer Applications in Business
MKT 5003	Marketing Theory

¹ Applications for the GMAT, or information on the test, may be obtained from GMAT, Educational Testing Service, P.O. Box 966R, Princeton, New Jersey 08540.

Master of Business Administration Degree in / 77 Interamerican Management

- MGT 5043 Behavior in Organizations
- MGT 5113 Management Perspective
- MGT 5903 Management Policy, Problems, and Trends²
- MKT 5023 Marketing Management

Students for the M.B.A. Degree in Business may elect one of two options to complete the required 36 hours. Under Option I, students are required to complete the 24 semester hours above, 6 semester hours of electives as recommended by the Committee on Graduate Studies and approved by the Dean, and 6 hours of Master's Thesis. Students who wish to utilize the non-thesis option, Option II, are required to complete the 24 semester hours above and 12 semester hours of electives as approved by the Committee on Graduate Studies and the Dean.

Degree Requirements. The M.B.A. Program in Business requires 36 semester hours of work beyond any hours acquired in the common body of knowledge courses. MGT 5113 must be the first course taken in this 36 hour program. All candidates for the M.B.A. Degree in Business are required to complete successfully the following 24 semester hours.

- ACC 5123 Advanced Managerial Accounting Topics
- ECO 5023 Managerial Economics
- FIN 5023 Financial Management
- MGT 5023 Decision Analysis and Production Management

MASTER OF BUSINESS ADMINISTRATION DEGREE IN INTERAMERICAN MANAGEMENT

In response to the geographical, commercial, and ethnic environments of The University of Texas at San Antonio, the College of Business offers the Master of Business Administration Degree in Interamerican Management. The fundamental objective of this degree program is to offer students an opportunity to gain perspective on commercial activities in a setting which is bilingual, transnational, and cross-cultural. This program is designed to offer students from the United States or the Americas the opportunity to study business administration while developing special expertise in its international aspects. To achieve this end, specific interamerican content courses have been developed in the disciplines of management, marketing and finance. There may be opportunities to study outside the United States and to apply the credit earned to the degree program at UTSA. The interamerican content courses and possibilities for foreign study are supplemented by research and workshop opportunities in the area of interamerican business. Students entering the degree program must meet the normal admission requirements for the College of Business and, concurrently with their work on the M.B.A. Degree in Interamerican Management, are required to demonstrate reading and conversational proficiency in either Spanish or Portuguese.

Special Admission Requirements. Applicants for admission to the Master of Business Administration program in Interamerican Management are required to meet the same special admission requirements set out above for the Master of Business Administration Degree in Business.

²MGT 5903 students who earn a grade of "B" or better in the course will satisfy the comprehensive examination requirement. A student who receives a grade of "C" may still satisfy this requirement by successfully passing a comprehensive examination as set out on page ____ of this catalog.

78 / Master of Business Administration Degree in Interamerican Management

Degree Requirements. The M.B.A. program in Interamerican Management requires 36 semester hours of work beyond any hours acquired in the common body of knowledge courses. MGT 5113 must be the first course taken in this 36 hour program. All candidates for the M.B.A. Degree in Interamerican Management must complete the following 24 semester hours:

- ACC 5123 Advanced Managerial Accounting Topics
- ECO 5023 Managerial Economics
- FIN 5023 Financial Management
- MGT 5023 Decision Analysis and Production Management
- MGT 5043 Behavior in Organizations
- MGT 5113 Management Perspective
- MGT 5903 Management Policy, Problems, and Trends³
- MKT 5023 Marketing Management

In addition to the above courses, students desiring an M.B.A. Degree in Interamerican Management must complete 12 semester hours from the following list of courses:

Interamerican Content Elective Courses:

- ECO 5303 International Trade and Finance
- ECO 5423 Problems of the Latin American Economies
- FIN 5673 Interamerican Banking and Financial Systems
- FIN 5833 International Managerial Finance and Accounting
- MKT 5673 International Marketing and Management
- MKT 5693 Marketing Environment in Latin America
- BLW 5173 Legal Environment of Interamerican Business
- MGT 5173 Comparative Interamerican Administration

Foreign course work may be taken as:

- FIN 5963-6 Interamerican Business Internship or
- MKT 5963-6 Interamerican Business Internship
- FIN 5983 Interamerican Business Essay or
- MKT 5983 Interamerican Business Essay

Students choose either an elective program of 12 semester hours in interamerican content courses as listed above or a combination of elective interamerican content courses and foreign study as recommended by the Committee on Graduate Studies and approved by the Dean of the College. Normally the foreign study will be taken at a cooperating Latin American institution. Foreign study is encouraged, and efforts will be made to assist students to complete a portion of their work outside the United States.

³MGT 5903 students who earn a grade of "B" or better in the course will satisfy the comprehensive examination requirement. A student who receives a grade of "C" may still satisfy this requirement by successfully passing a comprehensive examination as set out on page _____ of this catalog.

DIVISION OF ACCOUNTING AND INFORMATION SYSTEMS

MASTER OF PROFESSIONAL ACCOUNTING DEGREE

The Master of Professional Accounting (M.P.A.) Degree is designed to accommodate applicants with a degree in any field. Such applicants must complete the equivalent of a B.B.A. degree in accounting from an accredited institution or must enroll in the courses of the common body of knowledge plus certain accounting courses set out by the Advisor. The courses of the common body of knowledge may be taken simultaneously with M.P.A. requirements, subject to course prerequisites and approval of the M.P.A. Program Advisor.

Special Admission Requirements. In addition to satisfying the university-wide graduate admission requirements for unconditional admission, applicants seeking unconditional admission to the M.P.A. program must meet the following requirements:

1. A baccalaureate degree in accounting from an accredited college or university in the United States or equivalent training at a foreign institution; this degree must include the equivalent of Corporate Taxation, Advanced Accounting, and the equivalent of UTSA's MGT 4893 Business Policies and Management.
2. An approximate overall average of 3.0 in all work completed at the undergraduate level.
3. An approximate composite score of 500 on the Graduate Management Admission Test (GMAT) with results submitted to the Office of Admissions and Registrar prior to being considered for admission.⁴
4. Favorable recommendation by the M.P.A. Admissions Committee to the Dean of the College of Business.

Those who do not meet all of the admission requirements stated above will be considered for admission on a conditional basis. All admission deficiencies must be removed before enrolling for the last semester before graduation and will be in addition to degree requirements.

The following courses are required for students with undergraduate curriculum deficiencies; however, no credit for these courses may be counted toward the M.P.A. degree requirements:

ACC 5003	Financial Accounting Concepts
BLW 5003	Legal Environment of Business
ECO 5003	Economic Theory and Policy
FIN 5003	Administrative Finance
MGT 5013	Quantitative Methods for Business Analysis
MGT 5083	Computer Applications in Business
MGT 5113	Management Perspective
MKT 5003	Marketing Theory
ACC 5023	Accounting Analysis for Decision Making
ACC 5103	Financial Accounting Concepts & Practices I
ACC 5113	Financial Accounting Concepts & Practices II
ACC 5013	Survey of Federal Taxation of Business Entities
ACC 4013	Principles of Auditing

Degree Requirements. The minimum number of semester hours required for this degree, exclusive of course work or other study required to remove admission deficiencies, is 36 hours.

⁴Applications for the GMAT, or information on the test may be obtained from GMAT, Educational Testing Service, P.O. Box 966R, Princeton, New Jersey 08540.

All candidates for the M.P.A. degree must select one of the following two concentrations:

TAX CONCENTRATION

OPTION 1: 18 hrs of approved graduate tax courses	18 hours
18 hrs of approved electives ⁵	18 hours
36 hours	
or	
OPTION 2: 18 hrs of approved graduate tax courses	18 hours
12 hrs of approved electives ⁵	12 hours
ACC 6983 Master's Thesis ⁶	6 hours
36 hours	

ACCOUNTING (Public/Management) CONCENTRATION

OPTION 1: 18 hrs of approved graduate accounting courses	18 hours
18 hrs of approved electives ⁵	18 hours
36 hours	
OPTION 2: 18 hrs of approved graduate accounting courses	18 hours
12 hrs of approved electives ⁵	12 hours
ACC 6983 Master's Thesis ⁶	6 hours
36 hours	

In addition to the semester hour requirements set forth above, all candidates for the M.P.A. degree are required to pass a comprehensive examination before graduation.

COURSE DESCRIPTIONS

ACCOUNTING

(ACC)

5003 Financial Accounting Concepts

(3-0) 3 hours credit.

An intensive study of accounting as a tool to communicate financial information for planning, for analyzing and for controlling business enterprises directed toward decision making.

5013 Survey of Federal Taxation of Business Entities

(3-0) 3 hours credit. Prerequisite: ACC 5003 or consent of instructor.

Federal taxation of sole proprietorships, partnerships, and corporations with an emphasis on compliance with federal tax laws and business planning to acquaint students with the tax consequences of the forms of doing business and make them aware of the tax considerations in business operations.

5023 Accounting Analysis for Decision Making

(3-0) 3 hours credit. Prerequisite: ACC 5003 or the equivalent.

The study of accounting and its uses by management in the decision-making process.

5033 Controllership

(3-0) 3 hours credit. Prerequisite: 24 hours of accounting or consent of instructor.

A study of the accounting executive's role in the management of a business enterprise; case studies of the use of accounting information to management.

⁵Approved electives may not include ECO 5043, FIN 5043, or any courses assigned to make up deficiencies. If courses are from outside the College of Business, special approval is needed (form available).

⁶See requirements for thesis, page

5043 Research Issues in Auditing

(3-0) 3 hours credit. Prerequisite: Undergraduate course in auditing or consent of instructor. Specialized study of complex auditing problems including statistical sampling techniques, auditing techniques through the computer, auditor's reports, S.E.C. regulations, and interim reporting.

5053 Governmental Accounting

(3-0) 3 hours credit. Prerequisite: 15 hours of accounting or consent of instructor. A study of accounting principles and practices of not-for-profit organizations including federal, state and local governments.

5073 Managerial Accounting — Current Issues & Decision Analysis

(3-0) 3 hours credit. Prerequisite: ACC 5023 or the equivalent, or consent of instructor. Study of contemporary issues, cost concepts, and procedures in managerial accounting to include analysis and application of techniques in the generation of data for management information systems.

5083 Seminar in Internal Auditing

(3-0) 3 hours credit. Prerequisite: 15 hours of accounting or consent of instructor. Case study course involving: (1) in-depth study of internal control; (2) operation auditing; (3) field studies in the San Antonio environment.

5093 Advanced Accounting Information Systems

(3-0) 3 hours credit. Prerequisite: BDS 3013 or the equivalent, or consent of instructor. Comprehensive study of those systems which interface with the accounting function, including investigation of complex systems through analysis and flowcharting techniques, review of selected topics including: (1) information theory; (2) systems design; and (3) computer controls.

5103 Financial Accounting Concepts & Practices I

(3-0) 3 hours credit. Prerequisite: ACC 5003 or the equivalent. A concentrated study of financial accounting theory and practices. Analysis of various accounting practices and procedures as they apply to financial accounting and reporting.

5113 Financial Accounting Concepts & Practices II

(3-0) 3 hours credit. Prerequisite: ACC 5103 or the equivalent. A continuation of the study of financial accounting theory and practices, ACC 5103, Financial Accounting Concepts & Practices I.

5123 Advanced Managerial Accounting Topics

(3-0) 3 hours credit. Prerequisites: ACC 5003 and ACC 5023 or their equivalents. Advanced study of the applications of managerial accounting including cost analysis, variance analysis, pricing decisions, transfer pricing, and budgeting.

6013 Seminar in Current Accounting Theory

(3-0) 3 hours credit. Prerequisite: 24 hours of accounting or consent of instructor. A study of the nature of accounting, the nature of theory, and an explanation of the history of the development of "generally accepted accounting principles." A critical analysis of the validity of such principles. Research into the field of current accounting literature, with the objective of critically evaluating the present status and future course of accounting thought.

6023 Seminar in Contemporary Accounting Thought

(3-0) 3 hours credit. Prerequisite: 24 hours of accounting or consent of instructor. A study of contemporary accounting issues in accounting research; cases and readings of current accounting literature; and the development and presentation of accounting research.

6043 Comprehensive Tax And Research Problems

(3-0) 3 hours credit. Prerequisites: ACC 3043 and ACC 4153, or ACC 5013 or equivalent or consent of instructor. Advanced study of tax accounting and research including cash installment method of reporting gain, accrual systems of accounting, inventory, earnings and profits, net operating losses, carryovers, and allocations. Student will become acquainted with various tax materials available and their use, including the tax services, case reporters, and treasury publications.

6053 Estate, Trust and Gift Taxation and Administration

(3-0) 3 hours credit. Prerequisite: ACC 5013 or consent of instructor.

Emphasis on estate and gift planning and income taxation of trusts and estates. Taxation of gratuitous transfers under the federal estate and gift tax codes including inter vivos gifts, marital deduction, powers of appointment, retained interest, the concept of distributable net income, fiduciary taxation, and the concept of an estate.

6073 Corporate Taxation

(3-0) 3 hours credit. Prerequisite: ACC 5013 or consent of instructor.

Study of federal income taxation of corporations and shareholders, with emphasis on formation, distributions, personal holding companies, accumulated earnings tax, capital gains and losses, net operating losses, and capital and debt structure.

6083 Seminar in Advance Tax Procedural Problems

(3-0) 3 hours credit. Prerequisites: ACC 6043, and ACC 6073 or consent of instructor.

Advance case studies of tax audits, administrative appeals, settlement technique, appellate jurisdiction, choosing forums, ruling and technical requests, civil litigation, collection process, offers in compromise, interest and civil penalties, indirect methods of proof, criminal penalties.

6113 Partnerships and Subchapter S Corporations

(3-0) 3 hours credit. Prerequisite: ACC 6043 or consent of instructor.

A study of the special tax attributes of partnerships and Subchapter S corporations, with a comparison of these forms of doing business. Formation, operation, and dissolution of partnerships and Subchapter S corporations.

6123 Advanced Corporate Taxation

(3-0) 3 hours credit. Prerequisite: ACC 6043 and 6073 or consent of instructor.

Corporate liquidations, divisions and reorganizations, and consolidated tax returns.

6163 Seminar in Public Accounting Practice

(3-0) 3 hours credit. Prerequisite: 18 hours of accounting or consent of instructor.

An investigation of issues in professional accounting practice management. Topics include staff development, professional and ethical standards, practice development, marketing professional services, engagement management, and client relations.

6213 Programming Accounting Systems

(3-0) 3 hours credit. Prerequisite: MGT 5083.

Overview of program design and development using the COBOL language. Advanced features of COBOL such as sequential file updates, random file processing, and sorting will be included. Emphasis on design and coding techniques related primarily to accounting oriented applications.

6233 Design of Automated Accounting Systems

(3-0) 3 hours credit. Prerequisite: ACC 6213.

Concepts of planning, developing, implementing, and operating business information systems. Emphasis on reporting objectives, auditing and security controls, and integration of systems. Use of team projects in the areas of design and implementation.

6253 Seminar in Data Base Administration

(3-0) 3 hours credit. Prerequisite: ACC 6233 or equivalent.

Discussion and in-depth analysis of topics associated with the definition, creation, and management of data bases for accounting oriented business applications. Topics will include current developments in the field of data base management systems with emphasis placed on internal control aspects.

6273 Seminar in Computer Security and Internal Control

(3-0) 3 hours credit. Prerequisite: ACC 5113 and ACC 6213 or equivalent.

In-depth analysis of topics related to control and security during system development and operation of accounting information systems. Emphasis on techniques associated with auditing in an EDP environment. Use of Generalized Audit Software Package.

6943 Accounting Internship

(3-0) 3 hours credit. Prerequisite: Graduate standing, 15 semester hours of upper-division accounting or equivalent.

Internship must be approved in advance by the M.P.A. Program of Study Committee, Division Director of Accounting, and the Dean of the College of Business. Supervised full-

time or part-time, off-campus training in public accounting, industry, or government. Individual conferences and written reports required.

Note: Credit hours may not be counted toward the M.P.A. degree.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate 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 not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6963 Professional Report

(3-0) 3 hours credit. Prerequisites: Admission to candidacy and approval of the M.P.A. Program Advisor and the Professional Report Director (form available).

Professional Report research and preparation. May be repeated for credit but not more than 3 hours will apply to the Master's degree. Credit will be awarded on acceptance of the Professional Report. Enrollment is required each term in which the Professional Report is in progress.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

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

6983 Master's Thesis

3 hours credit. Prerequisites: Admission to candidacy and permission of the Graduate Advisor and thesis director (form available).

Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.

**COURSE DESCRIPTIONS
INFORMATION SYSTEMS
(IS)**

6973 Special Problems

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

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

DIVISION OF ECONOMICS AND FINANCE

COURSE DESCRIPTIONS

BUSINESS LAW (BLW)

5003 Legal Environment of Business

(3-0) 3 hours credit.

The opportunity for intensive study of law of contracts, negotiable instruments, sales, bankruptcy, agencies, partnerships and corporations, and wills and estates.

5173 Legal Environment of Interamerican Business

(3-0) 3 hours credit. Prerequisite: BLW 5003 or the equivalent.

Essentials of Latin American commercial law; recognized forms of business organization; corporate structure and liability; government regulation and antitrust policy; law of international commerce.

COURSE DESCRIPTIONS

ECONOMICS (ECO)

5003 Economic Theory and Policy

(3-0) 3 hours credit.

The opportunity for intensive study of micro- and macro-economic concepts; the price system as it functions under competition, monopoly and partial monopoly; national income measurement and determination; business cycles; money and banking; monetary policy; fiscal policy and economic stabilization.

5023 Managerial Economics

(3-0) 3 hours credit. Prerequisites: ECO 5003 and MGT 5013 or their equivalents.

Application of price theory to economic decisions of the firm. A problem-oriented approach emphasizing demand, production, and profit-maximizing conditions and their implications for output and pricing strategies under various market structures and types of organization. Credit cannot be earned for both ECO 5023 and ECO 5043.

5033 Economic Policy and Business Issues

(3-0) 3 hours credit. Prerequisite: ECO 5003 or equivalent.

A discussion of the impact of public policies on issues affecting businesses such as inflation, unemployment, productivity, economic stability, growth, investment strategies, technological change, and competition in the light of contemporary economic theories. Economic indicators are used to interpret business trends and evaluate the effect of national policies on business activity.

5043 Public Managerial Economics

(3-0) 3 hours credit. Prerequisite: ECO 5003 or the equivalent or consent of instructor. Economic theory and methodology relevant to the public sector. Concepts of marginal analysis, calculation of costs and benefits, and economic efficiency applied to problems of environmental quality, education, crime, and human resources. Microeconomic analysis of inflation, unemployment, income distribution, and economic growth; fiscal federalism and revenue sharing. Credit cannot be earned for both ECO 5043 and ECO 5023.

5223 Monetary Theory

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

Theory and practice of monetary control; supply and demand for money; instruments of monetary control and channels of economic impact; current issues in theory and policy.

5303 International Trade and Finance

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

Survey of trade theory including modern pure theory and trade policy, balance of payments and exchange rates, international financial institutions and policy problems.

5413 Economics of Health Systems

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

Application of economic models to the analysis of the medical and health services industry.

5423 Problems in the Latin American Economies

(3-0) 3 hours credit. Prerequisite: ECO 5023 or the equivalent.

Survey of problems relating to the economic development of selected Latin American countries; structural problems; balance of payments, foreign investment and foreign aid; emphasis on current issues.

5603 Public Finance and Fiscal Policy

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

Theoretical rationale for collective action; incidence, equity, and efficiency of taxation methods; externalities and property rights; fiscal management and debt financing.

5913 Antitrust — Legal and Economic Analysis

(3-0) 3 hours credit. Prerequisite: ECO 5003 or the equivalent.

An analysis of promoting and protecting competition through law. Antitrust implications of the managerial process are to be examined and evaluated.

6103 Economic and Business Forecasting

(3-0) 3 hours credit. Prerequisite: ECO 5003 and MGT 5013 or their equivalents or consent of instructor.

An examination of forecasting methods and a discussion of their application in the business world.

6303 Human Resource Development and Labor Markets

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

Review and utilization of economic tools for the analysis of the employment, allocation, remuneration and development of human resources. The structure and operation of labor markets and institutions, investments in human resources and problems of human resources measurement are analyzed with respect to economic decisions in the public and private sectors.

6313 Managerial Labor Economics

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

Survey of wage theory; wage determination and structure of labor markets; employment opportunities, economic security, leisure, and technological change; labor organizations and collective bargaining.

6363 Employment and Training Policy

(3-0) 3 hours credit. Prerequisite: ECO 5003 or the equivalent.

Study of the effects of monetary, fiscal, and human resource development policies on the supply and demand for labor and on the efficiency of labor market mechanisms. Evaluation of present employment and training policies. Forecasts of the impact of present policies on American industry and on State and local labor markets.

6553 Urban Economics

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

Economic dimensions of cities, location theory, theories of agglomeration and urban growth, analysis of urban problems of the public sector, transportation, pollution, housing, poverty, land use, and crime.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate 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 not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

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

6983 Master's Thesis

3 hours credit. Prerequisites: Admission to candidacy and permission of the Graduate Advisor and thesis director.

Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.

COURSE DESCRIPTIONS**FINANCE
(FIN)****5003 Administrative Finance**

(3-0) 3 hours credit. Prerequisite: ACC 5003 or the equivalent.

The opportunity for intensive study of the financial dimensions of business enterprise; financial organization structures; financing of business operations; capitalization; refunding and reorganization.

5023 Financial Management

(3-0) 3 hours credit. Prerequisite: FIN 5003 or the equivalent.

A study of the methodology used by the financial manager in the financing of various operations of a business enterprise such as planning, requisition and management of funds. Credit cannot be earned for both FIN 5023 and FIN 5043.

5033 Cases in Financial Management

(3-0) 3 hours credit. Prerequisite: FIN 5023 or the equivalent.

A case approach will be used to illustrate the applications of financial management to actual business situations as well as to integrate the different topical areas. The primary areas of focus will include planning, current asset management, capital budgeting, mergers and acquisitions, and financing alternatives.

5043 Budgeting and Finance in the Public Sector

(3-0) 3 hours credit.

An examination of public finance and budgeting. Concepts of public goods, analysis of public expenditures, concepts of capital budgeting, public budgeting techniques, assessment of taxation structures and other revenue sources, and intergovernmental fiscal relations. Credit cannot be earned for both FIN 5023 and FIN 5043.

5633 Investment Theory and Problems

(3-0) 3 hours credit. Prerequisite: FIN 5023 or the equivalent.

An examination of the investment decision in both the personal and corporate setting. Emphasis is placed on the analysis of risk and return characteristics of various investment alternatives, portfolio selection and management, and tax considerations. Problems and cases include investment decisions in securities, capital goods, and real estate.

5713 Financial Institutions and Markets

(3-0) 3 hours credit. Prerequisite: FIN 5023 or the equivalent.

The principle financial intermediaries in the U.S. economy and the changing dimensions in financial intermediation. Analysis of money and capital markets, flow of funds, and interest rates and security prices.

5733 Operations of Financial Institutions

(3-0) 3 hours credit. Prerequisite: FIN 5023 or the equivalent.

Management practices peculiar to managing the financial firm; covered are the major depositary and non-depository intermediaries. Emphasis is upon asset and liability management, industry structure, and competitive environment.

5813 Capital Formation and Budgeting

(3-0) 3 hours credit. Prerequisite: FIN 5023 or the equivalent.

Analysis of the cost-of-capital concepts and capital budgeting as these are associated with the micro and macro approach to finance.

5833 International Managerial Finance and Accounting

(3-0) 3 hours credit. Prerequisite: FIN 5023 or the equivalent.

The theory of business finance as applied to the operations of multinational firms, financial analysis and control of foreign investment decisions; working capital management; and

international capital markets and credit institutions. Examination of special accounting problems with particular focus on different systems, consolidation, and translation of foreign accounts. Analysis of recent trends in international monetary affairs.

5913 Portfolio Theory and Efficient Capital Markets

(3-0) 3 hours credit. Prerequisite: FIN 5633 or the equivalent.

A comprehensive survey of the classical and contemporary theories of optimum portfolio construction; a study of the determinants of risk-return trade-offs in the selection of securities; emphasis on the theory and evidence of efficient capital markets and its implications on the analysis of securities and portfolio management.

5963-6 Interamerican Business Internship

3 or 6 hours credit. Prerequisites: Consent of Division Director and Dean. Opportunity for work experience in interamerican business or public agency.

5983 Interamerican Business Essay

3 hours credit. Prerequisites: Consent of Division Director and Dean. Original research report on an interamerican management topic.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate 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 not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

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

6983 Master's Thesis

3 hours credit. Prerequisites: Admission to candidacy and permission of the Graduate Advisor and thesis director.

Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.

DIVISION OF MANAGEMENT AND MARKETING

COURSE DESCRIPTIONS

MANAGEMENT

(MGT)

5003 Conceptual Paradigms of Management

(3-0) 3 hours credit.

The opportunity for intensive study of the various theoretical constructs of the spectrum of organization and management theories including the process, empirical, behavioral and quantitative approaches. Credit will not be given for both MGT 5113 and MGT 5003.

5013 Quantitative Methods for Business Analysis

(3-0) 3 hours credit. Prerequisites: MAT 1033 and STA 1064 or their equivalents, or consent of instructor.

Study of quantitative methods used in business analysis. Emphasizes statistical analysis using computer assistance.

5023 Decision Analysis and Production Management

(3-0) 3 hours credit. Prerequisites: MGT 5013 and MGT 5083 or their equivalents.

Study of applications of quantitative approaches (such as probabilistic, programming, and simulation) to business decision analyses. Emphasis is given to practical applications (such as resource allocation, scheduling, inventory control, capital budgeting, etc.) and the use of computerized decision support systems.

5033 Business Research Methods

(3-0) 3 hours credit. Prerequisites: MGT 5013 and MGT 5083 or their equivalents.

Theory of methods used in conducting research in business, evaluation of major sources of business information, analysis of organization in writing research reports and problems in the major forms of business research.

5043 Behavior in Organizations

(3-0) 3 hours credit. Prerequisite: MGT 5003 or MGT 5113, or the equivalent.

Study of individual, interpersonal, and intergroup behavior in organizations. Focuses on problems of formal and informal organization, communications, motivation, change, conflict, cooperation, influence and authority.

5053 Organizational Communication

(3-0) 3 hours credit. Prerequisite: MGT 5003 or MGT 5113, or the equivalent.

A survey of theoretical and functional aspects of organizational communication stressing interpersonal, intra and interorganizational, and intercultural communication.

5063 Communication and Change

(3-0) 3 hours credit. Prerequisite: MGT 5053.

This course stresses the methodology of detecting and correcting organizational malfunctioning arising from individual or organizational communication audit, including sampling techniques, data gathering techniques (questionnaire, interview, observation) and data analysis.

5073 Interpersonal Communication in Organizations

(3-0) 3 hours credit. Prerequisite: MGT 5003 or MGT 5113, or the equivalent.

Specific focus will be placed on problems resulting from status differentiation in superior-subordinate and peer relationships. Topics will include negative feedback, information distortion, interviewing, transactional analysis, and interpersonal perception.

5083 Computer Applications in Business

(3-0) 3 hours credit. Prerequisite: CS 1043 or the equivalent, or consent of instructor.

Survey of modern business computer hardware, software, and applications. Computer languages of BASIC and PASCAL are used predominantly. Emphasizes computer use in business decision analysis. Extensive problem and project work.

5103 Organizational Systems Analysis

(3-0) 3 hours credit. Prerequisite: MGT 5003 or MGT 5113, or the equivalent.

The opportunity for intensive study covering current literature relating to management theory and enterprise leadership.

5113 Management Perspective

(3-0) 3 hours credit. Prerequisites: Graduate standing and acceptance into the M.B.A. program.

This course provides a strategic perspective for studying general management processes based on historical, cultural, and philosophical contributions to management thought. The student will be introduced to decision making and communication skills through the use of case analysis, written assignments, and oral presentations. This course must be taken first in the 36 hour M.B.A. core. Credit will not be given for both MGT 5113 and MGT 5003.

5123 Comparative Administration

(3-0) 3 hours credit. Prerequisite: MGT 5003 or the equivalent.

Analysis of various attributes and patterns of administration in public or private enterprises operating in widely differing economic, sociocultural, educational, and technological environments. Focus on the identification and evaluation of similarities and differences among variable associated with organizations to gain a better understanding of administrative processes.

5143 Managerial Process

(3-0) 3 hours credit. For non-business majors.

Focus on the functions of the manager including planning, staffing, organizing, directing, and controlling. Emphasizes the process "school" of management. May not be taken for credit by students who have had MGT 5003 or its equivalent.

5153 Social Issues in Business

(3-0) 3 hours credit. Prerequisite: MGT 5003 or MGT 5113, or the equivalent.

Focus on the forces surrounding the secularly oriented, technologically energized, and scientifically administered business sector of Western society. Develops an understanding of the underlying and basic forces that have fostered and shaped business. Emergence of the social responsibility ethic is examined.

5173 Comparative Interamerican Administration

(3-0) 3 hours credit. Prerequisite: MGT 5003 or MGT 5113, or the equivalent.

Comparative study of Latin American and U.S. management structures and practices; institutional and behavioral considerations affecting goals and strategy; relation of administrative behavior to central government policy.

5193 Organizational Planning Techniques

(3-0) 3 hours credit. Prerequisite: MGT 5003 or MGT 5113, or consent of instructor.

A study of modern techniques utilized for planning. Included are reviews of socio-psychological techniques used in goal setting and planning and the use of PERT, CPM and other planning tools.

5203 Managerial Strategy and Systems

(3-0) 3 hours credit. Prerequisite: MGT 5003 or MGT 5113, or the equivalent.

Development of a conceptual framework for strategy, its definition, elements, and relationships to the basic functions of managing. Analysis of directional action decisions required to achieve the organization's purposes.

5213 Organizational Systems for Management of Technology and Innovation

(3-0) 3 hours credit. Prerequisite: MGT 5043 or consent of instructor.

Focuses on organizational designs commonly found in modern organizations dealing with technology, innovation, and creativity. The course will cover project and program organization, matrix organization, interfacing mechanisms, and integrating techniques.

5223 Management of Professional and Technical Personnel

(3-0) 3 hours credit. Prerequisite: MGT 5043 or consent of instructor.

The study of behavior in professional and technical organizations. Focuses on the characteristics of professional and technical personnel, status and role systems within the professional organization, and communication and conflict within and between professional groups.

5323 Statistical Methods for Business Analysis

(3-0) 3 hours credit. Prerequisites: MGT 5013 and MGT 5083.

Study of statistical methods (such as regression, analysis of variance, time series, discriminant analysis, etc.) for the analysis of business data. Emphasizes the use of computer statistical packages such as SPSS and SAS.

90 / Management

5333 Small Business Development and Operation

(3-0) 3 hours credit. Prerequisite: MGT 5003 or MGT 5113, or the equivalent. Includes the development of new business organizations, joint ventures, mergers and acquisition, and new products services. Conceptualization of the managerial role in emerging enterprises.

5363 Computer Graphics for Management

(3-0) 3 hours credit. Prerequisite: MGT 5023.

Survey of the hardware and software available for computer graphics applications in business and industry (such as CAD/CAM). Study of procedures for generating graphic displays and animated output. Emphasis is given to managerial applications of graphic displays of information.

5373 Simulation Analysis of Business Systems

(3-0) 3 hours credit. Prerequisite: MGT 5023

Study of computer simulation techniques in the analysis of business decision situations. DYNAMO, GPSS, and VISICALC type simulation packages are employed. Emphasizes applications in accounting, finance, economics, marketing, and management.

5383 Microcomputer Applications in Business

(3-0) 3 hours credit. Prerequisite: MGT 5083.

Survey of microcomputer hardware, software, and applications. Emphasis on available financial planning, word processing, graphics, networking, program generation, and data base systems and their applications in business.

5393 Production Management

(3-0) 3 hours credit. Prerequisites: MGT 5003 or MGT 5113 and MGT 5023 or their equivalents.

An analysis of the management functions related to the production: planning, design, construction control, and operational control. Special topics will include forecasting, project management via CPM/PERT, plant location and layout, production scheduling, quality control, job design and analysis, and inventory management.

5413 Information Systems for Management

(3-0) 3 hours credit. Prerequisite: MGT 5023.

Study of relational, hierarchical, and simple information system designs and applications using microcomputer database management systems and decision support systems. Survey of available data base management techniques and packages. Emphasis on applications in management.

5443 Software Entrepreneurship

(3-0) 3 hours credit. Prerequisite: MGT 5083 or consent of instructor.

Study of the business of commercial software development and the processes for moving computer software from design to implementation and, subsequently, to the marketplace. Topics will include surveying existing software and hardware, legal considerations, packaging and documentation, and economics of software development and marketing alternatives. Emphasis will be given to actual software development during this course.

5623 Industrial Relations

(3-0) 3 hours credit. Prerequisite: MGT 5003 or MGT 5113, or consent of instructor.

An analysis of collective bargaining systems in organizations. Emphasis placed on the roles of management, unions, and government in collective bargaining and agreement administration.

5643 Personnel Management Process

(3-0) 3 hours credit. Prerequisite: MGT 5003 or MGT 5113, or the equivalent.

Management's approach to and the techniques for handling the human factor in an enterprise to maximize the productive efficiency of the firm through sound procurement, development, utilization, and maintenance of its human resources. Focus on behavioral and social science findings as they relate to work and their implications for personnel philosophy, policy, and practice.

5653 Organizational Careers

(3-0) 3 hours credit. Prerequisite: MGT 5003 or MGT 5113, or the equivalent.

Focus is on the career progression of individuals in organizations. Topics studied will include career and life stages, career planning, career crises, executive stress, organizational politics and other issues pertinent to development of upward mobility in public and private organizations.

5723 Labor Relations in the Public Sector

(3-0) 3 hours credit. Prerequisite: MGT 5003 or MGT 5113, or consent of instructor. An analysis of the unique role of labor relations at the federal, state and local level. Consideration will be given to relevant legislation and how and why public employees organize for collective bargaining. Emphasis will be placed on the practical aspects of bargaining and contract administration and how it relates to the public in general.

5903 Management Policy, Problems, and Trends

(3-0) 3 hours credit. Prerequisite: Semester of graduation or consent of the graduate advisor. A case study course intended to provide a capstone coverage of material taken in the M.B.A. program, as well as to broaden the horizons of the student beyond the focus on the firm. The macro-economic aspects of the economy and contemporary problems and trends of business are covered. This course will only be taught during the Fall and Spring semesters.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate 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 not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours regardless of discipline will apply to the Master's degree.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

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

6983 Master's Thesis

3 hours credit. Prerequisite: Admission to candidacy and permission of the Graduate Advisor and thesis director.

Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.

COURSE DESCRIPTIONS

MARKETING (MKT)

5003 Marketing Theory

(3-0) 3 hours credit.

Examination of marketing in society and the firm. Functions, institutions, processes, methods and issues will be examined. Emphasis will be on marketing decision-making.

5023 Marketing Management

(3-0) 3 hours credit. Prerequisite: MKT 5003 or the equivalent.

A study of current problems in the area of marketing management. Marketing practices and thought are analyzed.

5043 Consumer Behavior in Marketing Strategy

(3-0) 3 hours credit. Prerequisite: MKT 5023 or the equivalent.

Analysis of the consumer as the focal point of the economic system.

5053 Marketing Technological Innovations

(3-0) 3 hours credit. Prerequisite: MKT 5023.

The decision process for the management of innovations is introduced, and analytical tools to aid this process are developed. An industrial marketing viewpoint is emphasized.

5063 Marketing Research Design and Application

(3-0) 3 hours credit. Prerequisites: MKT 5023, MGT 5013, and MGT 5083, or their equivalents.

Problems in obtaining and analyzing internal and external marketing information using various instruments, designs and techniques germane to marketing.

5083 Promotion Management

(3-0) 3 hours credit. Prerequisite: MKT 5023 or the equivalent.

Uses of communication processes and programs to attain promotional goals; examination of mass and interpersonal forms of communication and the uses of sales promotion tools.

5123 Analysis of the Sales Function

(3-0) 3 hours credit. Prerequisite: MKT 5023 or the equivalent.

Examination of current and relevant issues regarding the role of selling in the firm; discussion of communication concepts and managerial processes in goal selection and attainment for sales activities.

5673 International Marketing and Management

(3-0) 3 hours credit. Prerequisite: MKT 5023 or the equivalent.

Analysis of the social, cultural, political, and economic environment for international business; problems in organizational structure of the firm and control of international operations in the multinational firm; study of alternative marketing strategies for crossnational market development.

5683 Import-Export Marketing

(3-0) 3 hours credit. Prerequisite: MKT 5023 or the equivalent.

Analysis of theory and practice of import-export operations between North America and Latin America. Special attention to actual practices and procedures of current operations, role of middlemen, customs, and transportation.

5693 Marketing Environment in Latin America

(3-0) 3 hours credit. Prerequisite: MKT 5673 or the equivalent.

Analysis of market institutions in economic development in Latin America; problems and techniques of market research in Latin America; Inter-American trade patterns; special attention to consumer behavior in the external environment for marketing in Latin America.

5963-6 Interamerican Business Internship

3 or 6 hours credit. Prerequisites: Consent of Division Director and Dean.

Work experience in interamerican business or public agency.

5983 Interamerican Business Essay

3 hours credit. Prerequisites: Consent of Division Director and Dean.

Original research report on interamerican management topic.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate 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 not normally or not often available as part of the regular course offerings. May be repeated for credit, but no more than 6 hours, regardless of discipline, will apply to the Master's degree.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

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

6983 Master's Thesis

3 hours credit. Prerequisites: Admission to candidacy and permission of the Graduate Advisor and thesis director.

Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.

COLLEGE OF FINE ARTS AND HUMANITIES

DIVISION OF ART AND DESIGN

MASTER OF FINE ARTS DEGREE

The Master of Fine Arts degree is the terminal degree in the field of studio art. The M.F.A. degree program of the Division of Art and Design is fully accredited by the National Association of Schools of Art and Design. The objective of this degree is to offer the opportunity for advanced study in the field of art in preparation for careers as practicing artists, as artist/teachers at the college or university level, or as professionals in other art-related enterprises.

Special Admission Requirements. In addition to satisfying the university-wide graduate admission requirements, applicants are expected to have a Bachelor of Fine Arts Degree or a Bachelor of Arts Degree with a major in art or the equivalent. As part of their undergraduate degree, students should have completed a minimum of 45 semester hours in studio art and 15 semester hours in art history.

Applicants who do not meet the special admission requirements should consult the catalog for the criteria for admission as special students.

In addition to filing the regular University application for admission, all applicants must submit to the Division of Art and Design for evaluation twenty slides (35mm) of their work (no portfolios unless requested), a statement describing the objectives of proposed graduate study, and three letters of recommendation.

Degree Requirements.

A minimum of 60 semester hours is required for the Master of Fine Arts degree, exclusive of course work or other study required to remove admission deficiencies.

Major field (ceramics, drawing, painting, photography, printmaking, sculpture, and Graduate Studio Seminar)	30 hours
Electives in the Division of Art and Design. (12 hours must be selected in studio art courses outside the major field)	15 hours
Art history and criticism (AHC 5123, AHC 5813, and/or AHC 6863)	12 hours
Master of Fine Arts Exhibition (If this work is not completed in one semester a grade of "RP" will be given indicating "research in progress.") The student must register for the course for the additional semester or semesters necessary to bring the work to completion, at which time a letter grade will be recorded. Only three semester hours of credit will apply to the degree requirements regardless of the number of semesters a student enrolls in the course.)	3 hours
	60 hours

Although The University recommends all students apply for admission to candidacy at the end of one semester of full-time study or completion of 12 semester hours of graduate work, the Division of Art and Design recommends that students complete

at least two semesters of full-time study or 24 hours of graduate work before applying for Admission to Candidacy. A student must have an acceptable Program of Study and must be recommended for Admission to Candidacy by the appropriate Committee on Graduate Studies and Division Director and must be approved for Admission to Candidacy by the Dean. Additional requirements for Admission to Candidacy are set forth in that section of the present catalog.

COURSE DESCRIPTIONS **ART**

5153 Painting

(0-6) 3 hours credit. Prerequisite: B.F.A. or equivalent.

Concerned with the development of personal imagery as well as the broader understanding of painting traditions. May be repeated for credit.

5253 Drawing

(0-6) 3 hours credit. Prerequisite: B.F.A. or equivalent.

Emphasis on traditional and contemporary drawing problems including various approaches for the development of imagery. May be repeated for credit.

5353 Printmaking

(0-6) 3 hours credit. Prerequisite: B.F.A. or equivalent.

Emphasis on intaglio, lithography, mono, and photogravure printing in black and white and color. Experimentation in processes and imagery is encouraged. May be repeated for credit.

5453 Photography

(0-6) 3 hours credit. Prerequisite: B.F.A. or equivalent.

Emphasis on the medium as an art form and practice of the demands of the discipline, including black and white, color and nonsilver processes. May be repeated for credit.

5553 Sculpture

(0-6) 3 hours credit. Prerequisite: B.F.A. or equivalent.

Emphasis on the creative development of sculptural ideas in a variety of materials and technical methods and approaches. May be repeated for credit.

5753 Ceramics

(0-6) 3 hours credit. Prerequisite: B.F.A. or equivalent.

Emphasis on the discipline as an expressive art form using a variety of technical processes and materials and approaches to ceramics. May be repeated for credit.

6013 Practicum in the Visual Arts

3 hours credit. Prerequisite: Admission to Candidacy and consent of instructor.

Students will participate in projects on an individual basis. These may include community-oriented activities such as workshops for community centers, special art programs for public or private educational organizations, service projects for displays, murals and exhibitions for special environments, and supervised assistance in instructional activities. The instructor will supervise and evaluate the student's activities. May be repeated for credit once.

6023-6 Graduate Studio Seminar

3 or 6 hours credit. Prerequisite: Graduate standing.

An organized class concerned with the exploration of formal problems in art through discussions, critiques, and work executed for the class in the student's major field: painting, drawing, printmaking, sculpture, photography, or ceramics. No more than 15 semester hours may be applied toward degree requirements.

6843 Master of Fine Arts Exhibition

3 hours credit. Prerequisite: Completion of course requirements in the major.

Concentrated studio activity in the major field of study emphasizing preparation of work for the concluding exhibition in consultation with the graduate advisor upon recommendation of the Graduate Studies Committee and the approval of the Division Director. Enrollment is required each term in which the exhibition is in progress.

6951-3 Independent Study

1 to 3 hours credit. Prerequisite: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate 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. For students needing specialized work not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master of Fine Arts degree.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

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

COURSE DESCRIPTIONS
ART HISTORY AND CRITICISM
(AHC)

5123 Seminar in Research Methods and Writing

(3-0) 3 hours credit. Prerequisite: Graduate standing.

A basic methodology course designed to offer the opportunity for the graduate student to gain an introduction to all facets of the discipline of Art History and Criticism, including research, documentation, historical and critical writing.

5813 Topics in Art History

(3-0) 3 hours credit. Prerequisites: Graduate standing and AHC 5123.

A course designed to deal with specialized areas in art history. May be repeated for credit as topics vary.

Areas include:

Renaissance Arts

Baroque Arts

Spanish Arts

New World — Hispanic Art

Pre-Columbian Arts

19th Century Art

20th Century Art

Contemporary Art

6813 Practicum in Art History and Criticism

3 hours credit. Prerequisite: Graduate standing, consent of instructor, and AHC 5123. A form of "Learning Laboratory" in which the principles and methodologies of Art History, Art Criticism and Museology are applied in a practical manner outside the classroom in areas such as museum and gallery activities, historical preservation, research for private collections, and community oriented educational or information functions and publications. Projects will be initiated by the students with close supervision and evaluation by the instructor. May be repeated for credit up to a maximum of 6 hours.

6833 Art Gallery and Museum Practices

3 hours credit. Prerequisite: Graduate standing and consent of instructor.

Students will be introduced to the organization and operation of gallery and/or museum activities: cataloging, research, preparation and installation of art exhibitions.

6863 Art Theory and Criticism

(3-0) 3 hours credit. Prerequisite: Graduate standing.

A study of systems and philosophies of art and aesthetics as exemplified in writings and works by artists, philosophers, scientists, and critics, examining the methods and principles of critical analysis and creative expression in the visual arts.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate 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. For students needing specialized work not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Graduate standing and consent of instructor. An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Problems courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to a degree.

DIVISION OF ENGLISH, CLASSICS, AND PHILOSOPHY

MASTER OF ARTS DEGREE IN ENGLISH

The Master of Arts Degree in English offers the student an opportunity to acquire a general knowledge of English and American literature, to understand the historical context in which that literature was produced, to develop skills in critical analysis, and to investigate the principal kinds of literary, rhetorical, and linguistic research.

Special Admission Requirements. In addition to satisfying the university-wide graduate admission requirements, the applicant must have completed at least eighteen semester hours of work (exclusive of freshman courses) in English with a grade-point average of B+ (3.3 on a 4.0 scale) in all work taken in English at the upper-division and graduate levels. These requirements may be waived in unusual circumstances upon the recommendation of the Committee on Graduate Studies and the approval of the Division Director and the Dean of the College of Fine Arts and Humanities.

Degree Requirements. The minimum number of semester hours required for this degree, exclusive of course work or other study required to remove admission deficiencies, is 36.

All candidates for the degree must complete:

A. 24 semester hours in the *major*, distributed as follows:

1. Rhetoric and Writing — 3 semester hours required

ENG 5133	Contemporary Rhetorical Theory
ENG 5143	Creative Writing: Fiction
ENG 5153	Creative Writing: Poetry
ENG 5163	Topics in Professional Writing
ENG 5173	Theory and Practice of Teaching Literature
ENG 5183	Theory and Practice of Teaching Composition
ENG 5193	Internship
2. Language and Literary Theory — 6 semester hours required

ENG 5053	Topics in Literary Genres
ENG 5123	Theory of Literature
ENG 5633	Topics in the Study of Literature
ENG 5813	History of the English Language
ENG 5823	Principles of English Linguistics
3. Historical Periods — 9 semester hours required

ENG 5223	Medieval Literature
ENG 5313	Renaissance Literature
ENG 5413	Restoration and Eighteenth-Century Literature
ENG 5513	Romantic and Victorian Literature
ENG 5613	Nineteenth-Century American Literature
ENG 5733	Twentieth-Century British and American Literature I
ENG 5743	Twentieth-Century British and American Literature II
4. Masterworks — 6 semester hours required

ENG 5073	Topics in Individual Authors
ENG 5213	Chaucer Studies
ENG 5323	Shakespeare Studies
ENG 5343	Milton Studies

B. 12 semester hours of *electives* in English or, with the approval of the Committee on Graduate Studies, in a related discipline as part of a coherent program of study. Students who wish to emphasize composition and rhetoric are encour-

aged to take their elective hours in Rhetoric and Writing; these hours should include ENG 5133. Students who wish to emphasize literary studies are encouraged to take their elective hours in Historical Periods and Masterworks; these hours should include ENG 5123.

In addition to the semester-hour requirements set forth above, all candidates for the degree are required to pass the comprehensive examination. The comprehensive examination, composed of both written and oral portions, is offered three times a year and is normally taken in that semester in which the candidate is due to complete his or her graduate study. The comprehensive examination may be taken twice only.

A thesis is not written for the Master of Arts Degree in English.

All candidates for the degree must be admitted to candidacy normally at the end of one semester of full-time study or upon completion of 12 semester hours of graduate work. To be admitted to candidacy a student must have an acceptable Program of Study and must be recommended for Admission to Candidacy by the Division Committee on Graduate Studies and Division Director and must be approved for Admission to Candidacy by the Dean of the College of Fine Arts and Humanities. Additional requirements for Admission to Candidacy are set forth in that section of the present catalog.

COURSE DESCRIPTIONS ENGLISH (ENG)

5053 Topics in Literary Genres

(3-0) 3 hours credit.

Consideration of texts selected to illustrate the structural and conceptual properties of a given genre, e.g., poetry, fiction, or drama. May be repeated for credit when topics vary.

5073 Topics in Individual Authors

(3-0) 3 hours credit.

Reading and analysis of the works of one or more major authors. May be repeated for credit when authors vary.

5123 Theory of Literature

(3-0) 3 hours credit.

Concentration on the history of literary theory, tracing the development of Platonic and Aristotelian conceptions of literary form and meaning from the Greeks through Romantic artists and theorists; study of problems in post-Kantian aesthetics, particularly as they are manifested in contemporary literary theory and criticism.

5133 Contemporary Rhetorical Theory

(3-0) 3 hours credit.

Study of contemporary theories of writing and their historical development.

5143 Creative Writing: Fiction

(3-0) 3 hours credit.

Intensive workshop in creative writing for students interested in developing their ability to write fiction.

5153 Creative Writing: Poetry

(3-0) 3 hours credit.

Intensive workshop in creative writing for students interested in developing their ability to write poetry.

5163 Topics in Professional Writing

(3-0) 3 hours credit.

Workshop for students interested in developing skills in various types of professional writing such as business writing and technical writing. May be repeated for credit when topics vary.

5173 Theory and Practice of Teaching Literature

(3-0) 3 hours credit.

Discussion of literary interpretations which illuminate classic and contemporary texts to form the basis of teaching. Applications of theory and research to the teaching of literature.

5183 Theory and Practice of Teaching Composition

(3-0) 3 hours credit.

Survey of rhetorical principles as related to student writing. Applications of theory and research to the teaching of composition.

5193 Internship

3 hours credit. Prerequisite: ENG 5183 or equivalent.

Supervised experience in teaching writing to individual students and groups.

5213 Chaucer Studies

(3-0) 3 hours credit.

Critical study of Chaucer's major poetry in the context of his times. To be read in Middle English.

5223 Medieval Literature

(3-0) 3 hours credit.

Critical study of major works from the Anglo-Saxon period through the fifteenth century, excluding Chaucer. Some readings in modern translation, some in Middle English.

5313 Renaissance Literature

(3-0) 3 hours credit.

Critical survey of verse, drama, and prose of the sixteenth and seventeenth centuries, excluding Shakespeare and Milton; emphasis on writers such as Spenser, Marlowe, Donne, Jonson, Herbert, and Marvell.

5323 Shakespeare Studies

(3-0) 3 hours credit.

Reading and analysis of representative plays.

5343 Milton Studies

(3-0) 3 hours credit.

Reading and analysis of the major poems and selected prose.

5413 Restoration and Eighteenth-Century Literature

(3-0) 3 hours credit.

Study of the transition from Neo-classicism to Romanticism; emphasis on writers such as Dryden, Pope, Swift, Thomson, Fielding, Johnson, and Burns.

5513 Romantic and Victorian Literature

(3-0) 3 hours credit.

Reading and analysis of verse and prose of major nineteenth-century writers; emphasis on writers such as Wordsworth, Coleridge, Scott, Tennyson, Arnold, Dickens, and Hardy.

5613 Nineteenth-Century American Literature

(3-0) 3 hours credit.

Reading and analysis of verse and prose of nineteenth-century American writers; emphasis on writers such as Hawthorne, Emerson, Thoreau, Melville, Dickinson, Whitman, and Twain.

5633 Topics in the Study of Literature

(3-0) 3 hours credit.

Exploration of the ways that intellectual movements, theories, and seminal texts shaped literature and literary study. Topics may be drawn from such disciplines as classics, philosophy, and religious studies. May be repeated for credit when topics vary, but not more than 6 hours will apply to the Master's Degree.

5733 Twentieth-Century British and American Literature I

(3-0) 3 hours credit.

Critical survey of British and American poetry, fiction, and drama from 1900 to 1940; emphasis on writers such as Eliot, Joyce, Woolf, O'Neill, Faulkner, Hemingway, and Thomas.

5743 Twentieth-Century British and American Literature II

(3-0) 3 hours credit.

Critical survey of British and American poetry, fiction, and drama from 1940 to the present; emphasis on writers such as Nabokov, Bellow, Singer, Miller, Beckett, and Lowell.

5813 History of the English Language

(3-0) 3 hours credit.

Study of the historical development of the lexicon and the phonological, morphological, and syntactic patterns of English. Attention to the dialectal variety during the early stages of the language as well as to the distinctive characteristics of the Old, Middle, and Modern English periods.

5823 Principles of English Linguistics

(3-0) 3 hours credit.

Introduction to the principles of English phonology, syntax, morphology, semantics, and pragmatics.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate 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 not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's Degree.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

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

DIVISION OF FOREIGN LANGUAGES

MASTER OF ARTS DEGREE IN SPANISH

The Master of Arts Degree in Spanish offers the student an opportunity for a view in depth of Hispanic literature, culture, and language underscoring the unity of the Hispanic world rather than its national components. Elective courses in linguistics offer an opportunity to further the student's grasp of the Spanish language in its geographical, cultural, and social variations. Within the M.A. degree in Spanish, concentrations are offered in Hispanic Culture, Hispanic Literatures, and Spanish Language.

Special Admission Requirements. In addition to satisfying the university-wide graduate admission requirements, applicants are expected to have a bachelor's degree with a major in Spanish or the equivalent and a demonstrably adequate command of both written and oral Spanish.

Degree Requirements. The number of semester hours required for this degree, exclusive of course work or other study required to remove admission deficiencies is 36.

All candidates for the degree must complete:

A. 12 semester hours of core courses in the major.

- SPN 5373 Approaches to Hispanic Studies
- SPN 5453 Hispanic Cultural Periods and Traditions
- SPN 5613 Hispanic Literary Tradition
- SPN 5843 History of the Spanish Language

B. 12 semester hours of concentration courses, elected from one of the concentration areas.

Hispanic Culture:

- 1. BBL 5133 Hispanic Biculturalism in the United States
- 2. SPN 5413 History of Ideas in the Hispanic World
- 3. SPN 5463 Spanish Civilization or
SPN 5473 Spanish American Civilization
- 4. SPN 6813 Seminar in Hispanic Studies

Hispanic Literatures:

- 1. SPN 5633 Spanish Golden Age Literature or
SPN 5643 Don Quijote
- 2. SPN 5703 Modern Spanish Literature or
SPN 5773 Contemporary Spanish-American Literature
- 3. SPN 5813 Studies in Hispanic Literature
- 4. SPN 6813 Seminar in Hispanic Studies

Spanish Language:

- 1. SPN 5863 Spanish Phonetics and Phonology
- 2. SPN 5883 Spanish Syntax
- 3. SPN 5893 Hispanic Dialectology
- 4. SPN 6813 Seminar in Hispanic Studies

C. 6 semester hours of *electives*, as approved by the Division Graduate Advisor of Record.

D. 6 semester hours from Option I or Option II.

Option I

The satisfactory completion of a thesis in accordance with university regulations as stated under "Options for Master's Degrees."

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Option II

An additional six (6) semester hours of course work in Spanish graduate courses as approved by the Division Graduate Advisor of Record.

In addition to the semester-hour requirements set forth above, all candidates for the degree are required to pass the comprehensive examination. The comprehensive examination, both written and oral, is designed to test the student's general knowledge in the chosen field as well as to evaluate critical abilities and is normally administered in the term in which the candidate expects to receive the degree.

All candidates for the degree must be admitted to candidacy normally at the end of one semester of full-time study or upon completion of 12 semester hours of graduate work. To be admitted to candidacy a student must have an acceptable Program of Study and must be recommended for Admission to Candidacy by the appropriate Committee on Graduate Studies and Division Director and must be approved for Admission to Candidacy by the Dean of the College of Fine Arts and Humanities. Additional requirements for Admission to Candidacy are set forth in the section of the present catalog.

COURSE DESCRIPTIONS **SPANISH** **(SPN)**

5373 Approaches to Hispanic Studies

(3-0) 3 hours credit.

Readings in and applications of research methods demonstrating main theoretical and critical approaches to texts and problems in Hispanic language, literature and culture.

5413 History of Ideas in the Hispanic World

(3-0) 3 hours credit.

Selected works by Spanish and/or Spanish American authors representative of major currents of thought affecting the evolution of Hispanic cultural history.

5453 Hispanic Cultural Periods and Traditions

(3-0) 3 hours credit.

Hispanic cultural history and traditions from the Middle Ages through the Renaissance, the Baroque, the Enlightenment, and Romanticism to modern times.

5463 Spanish Civilization

(3-0) 3 hours credit.

A study of the social, political, and cultural history of Spain.

5473 Spanish American Civilization

(3-0) 3 hours credit.

A study of the social, political and cultural history of the Spanish American countries.

5483 Studies in Hispanic Culture

(3-0) 3 hours credit.

Studies of different facets of Hispanic culture, such as: Christian and non-Christian cultures, "Civilization and Barbarism," Revolutionary Movements and the Arts, Conquest and *mestizaje*. May be repeated for credit when topics vary.

5613 Hispanic Literary Tradition

(3-0) 3 hours credit.

The development of Hispanic literature as manifested in selected Spanish and Spanish American works representative of literary periods, movements, styles, and genres.

5633 Spanish Golden Age Literature

(3-0) 3 hours credit.

The trajectory of poetry, prose, and drama in the sixteenth and seventeenth centuries. May be repeated for credit when topics vary.

5643 *Don Quijote*

(3-0) 3 hours credit.

A study of the novel's narrative structure, literary motifs, stylistic devices, and ideological background. The meaning of *Don Quijote* in Western tradition.

5703 *Modern Spanish Literature*

(3-0) 3 hours credit.

Selected literary works of the twentieth century. May be repeated for credit when topics vary.

5773 *Contemporary Spanish-American Literature*

(3-0) 3 hours credit.

Selected literary works from the vanguard movement to the present: prose, poetry, and/or drama. May be repeated for credit when topics vary.

5803 *Mexican-American Literature*

(3-0) 3 hours credit.

Mexican-American literature in the realm of the Hispanic tradition. Similarities and divergences. Its ethnic, social and linguistic characteristics. Its correlation with various forms of artistic expression. Genres, themes, and authors. Localism and universality.

5813 *Studies in Hispanic Literature*

(3-0) 3 hours credit.

Reading and analysis of representative works of individual authors, literary genres, literary periods, literary movements, geographical areas, or literary theory. May be repeated for credit when topics vary.

5843 *History of the Spanish Language*

(3-0) 3 hours credit.

Chronological development of the Spanish language. Sound changes and morphosyntactic changes as processes in a living community; attention given to linguistic features produced through cultural contacts and interaction.

5863 *Spanish Phonetics and Phonology*

(3-0) 3 hours credit.

The framework of articulatory phonetics and its application to the description of Spanish. Analysis of the sound system of Spanish from both the structuralist and transformational points of view. Attention given to regional and social variation.

5873 *Studies in Spanish Grammar*

(3-0) 3 hours credit.

Readings and discussions of a variety of studies on Spanish grammar and in-depth analysis of selected problems.

5883 *Spanish Syntax*

(3-0) 3 hours credit.

Introduction to the modern framework of grammatical description and the application of it to Spanish. Consideration of the major syntactic patterns in Spanish and their relevance for achieving an in-depth command of Spanish usage.

5893 *Hispanic Dialectology*

(3-0) 3 hours credit.

A study of regional and social variations of Spanish with regard to pronunciation, grammar, and vocabulary. Special attention to San Antonio, Mexican American, and Mexican Spanish.

5903 *Studies in Hispanic Linguistics*

(3-0) 3 hours credit.

Study in selected areas of Hispanic linguistics not normally available as part of regular course offerings. May be repeated for credit when topics vary.

5953 *A Functional Notional Approach to the Teaching of Contemporary Hispanic Culture*

(3-0) 3 hours credit.

Identification of the segments of contemporary Spanish pertinent to the major functions or purposes of language use in a given part of the Spanish-speaking world. Identification of the extended vocabulary clusters or notions pertinent to major topics or situations in contemporary life in a given part of the Spanish speaking world. Relation of these elements to approaches to instruction in any of the four skills. May be repeated for credit when topics vary up to a maximum of six hours.

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5963 Testing in Spanish

(3-0) 3 hours credit.

Content and approaches for testing of achievement and proficiency at the various levels of Spanish, with consideration of the essential notions, functions, and structures for each level and each skill. May be repeated for credit when topics vary up to a maximum of six hours.

5993 Translation and Interpretation

(3-0) 3 hours credit.

Translation and interpretation in the area of professional communications: documents, publications, correspondence, briefings, client-professional interviews. Skills taught include English-Spanish and Spanish-English written translation, written and oral summarization, and interpretation in professional situations.

6813 Seminar in Hispanic Studies

(3-0) 3 hours credit. Prerequisite: 18 semester credit hours of graduate level Spanish. In-depth study and major research project in topics such as Hispanic culture, literature, and/or language. May be repeated for credit when topics vary.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate 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 not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

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

6983 Master's Thesis

3 hours credit. Prerequisite: Admission to candidacy and permission of the Graduate Advisor and thesis director.

Thesis research and preparation. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.

COURSE DESCRIPTIONS FOREIGN LANGUAGES (FL)

5003 Foreign Language Instruction

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

Consideration of foreign language instruction and curriculum and the teaching of language, literature and culture with special emphasis on Spanish, French and German.

5013 Foreign Language Testing

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

Consideration of content and approaches for testing achievement and proficiency, at the various levels, in listening, speaking, reading, writing, vocabulary, structure, and culture in the foreign languages, with special emphasis on Spanish, French, and/or German.

COURSE DESCRIPTIONS
FRENCH
(FRN)

5813 Topics in French Linguistics

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

A course focusing on a selected area of French Linguistics, such as grammar, stylistics, phonetics, or applied linguistics. May be repeated for credit when topics vary.

5913 Topics in French Literature and Culture

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

A course focusing on a selected period or aspect of French literature and culture, such as contemporary France, the nineteenth century novel and society, or twentieth century theater. May be repeated for credit when topics vary.

COURSE DESCRIPTIONS
GERMAN
(GER)

5813 Topics in German Linguistics

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

Course focuses on a selected area of German Linguistics such as advanced German grammar, phonetics, and phonology. May be repeated for credit when topics vary.

5913 Topics in German Literature and Culture

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

Selected topics relative to German literature and culture including such areas as contemporary Germany and profiles of particular segments of German society. May be repeated for credit when topics vary.

COURSE DESCRIPTIONS
LINGUISTICS
(LNG)

5013 Sociolinguistics

(3-0) 3 hours credit. Prerequisite: LNG 3813 or equivalent or consent of instructor.

Theory, research, and field collection of data for the study of linguistic variation that can be related to social, economic, geographical, and other aspects of cultural groups in various societies.

5023 Psycholinguistics

(3-0) 3 hours credit. Prerequisite: LNG 3813 or equivalent or consent of instructor.

The study of the empirical evidence for linguistic hypotheses in human behavior, i.e., the validation of hypotheses about competence on the basis of actual performance. Relationship between first and second language acquisition and development; relationship between language and thought.

5123 Contrastive Linguistics

(3-0) 3 hours credit. Prerequisite: LNG 3813 or equivalent or consent of instructor.

A comparison of the salient phonological, syntactical, and semantic features of various languages with a pragmatic explanation of the difficulties which the differences in structure cause the speaker of one language in learning another.

5153 Topics in Contemporary Linguistics

(3-0) 3 hours credit. Prerequisite: LNG 3813 or equivalent or consent of instructor.

Theoretical approaches to language analysis and description. May be repeated for credit when topics vary.

DIVISION OF MUSIC

MASTER OF MUSIC DEGREE

The Master of Music Degree offers the opportunity for advanced study for qualified students who wish to emphasize either music performance or music education.

Special Admission Requirements. In addition to satisfying the university-wide admission requirements, applicants are expected to (1) hold the Bachelor of Music Degree or Bachelor of Music Education Degree with a major in their intended area of graduate emphasis, or the equivalent; (2) submit three recommendations from established professionals commenting on the appropriateness of graduate study in music for the applicant; (3) complete one of the following:

Music Performance: Audition in person or provide a recent tape demonstrating the level of mastery in the proposed performance medium.

Music Education: Interview, preferably in person, with the Graduate Faculty in music education.

Students are required to take advisory examinations in music theory and music history. Additional advisory exams may be required according to degree emphasis (e.g., music education, conducting, etc.). The student's advisor will counsel the student in correcting deficiencies and in selecting courses for the student's degree program.

Degree Requirements. Two options are available in the Master of Music Degree program for the students in the music education emphasis. Option I consists of 24 semester hours of course work, and a thesis for which 6 semester hours of credit are given. Option II consists of 36 semester hours including a project for which 3 semester hours of credit are given.

Students selecting the music performance emphasis are required to complete 30 semester hours of credit including 1 semester hour of credit for a recital. Voice principals must demonstrate proficiency in French, Italian, and German diction.

To qualify for admission to candidacy all music performance emphasis students must, in addition to satisfying university-wide requirements, perform a qualifying recital of 30 minutes length.

MUSIC PERFORMANCE EMPHASIS

All candidates for the Master of Music Degree with an emphasis in music performance must complete:

- A. 9 semester hours of music performance as follows:
MUS 5554 Music Performance-Performance Emphasis (two semesters)
MUS 6941 Recital
- B. 15 semester hours of music electives (approved by advisor) to include the areas of theory and analysis, history and literature, research, pedagogy, and performance.
- C. 6 semester hours of electives (approved by advisor) of which no more than two semester hours may be in a music ensemble.

MUSIC EDUCATION EMPHASIS

All candidates for the Master of Music Degree with an emphasis in music education must complete:

- A. 9 semester hours in the area of emphasis as follows:
MUS 5403 Psychological Foundations of Music Education
MUS 5413 Research in Music Education
MUS 6423 Seminar in Music Education

B. Option I (with thesis):

The satisfactory completion of MUS 6983 Master's Thesis (6 hours) in accordance with university regulations as stated under "Options for Master's Degrees."

Option II (with project):

MUS 6913 Project in Music Education

C. Option I (with thesis):

15 semester hours of electives (approved by advisor) to include the areas of theory and analysis, history and literature, and performance (no more than two semester hours may be in a music ensemble). The remaining hours of electives are to be taken in the area of specialization (instrumental music education, choral music education, general music education, piano pedagogy) and must be approved by the advisor.

Option II (with project):

24 semester hours of electives (approved by advisor) to include the areas of theory and analysis, history and literature, research, and performance (no more than two semester hours may be in a music ensemble). The remaining hours of electives are to be taken in the area of specialization (instrumental music education, choral music education, general music education, piano pedagogy) and must be approved by the advisor.

Special Degree Requirements. All graduate students are required to participate in an ensemble appropriate to their program of study for two semesters.

Students selecting the performance emphasis will complete a recital document and oral examination. Students selecting the music education emphasis will complete both written and oral examinations.

COURSE DESCRIPTIONS

MUSIC (MUS)

5103 Applied Systems of Analysis

(3-0) 3 hours credit. Required of all students for a Master of Music Degree.

A study of techniques designed to assist the conductor-performer-analyst in a better understanding of music through the application of differing analytical systems, with an emphasis on the Schenker-Salzer System of Analysis.

5223 Ensemble Repertoire

(3-0) 3 hours credit. Prerequisite: Graduate standing in music.

A study of repertoire for ensembles including an historical perspective. Section 1. Choral. Section 2. Instrumental. May be repeated for credit.

5233 Introduction to Music Research

(3-0) 3 hours credit. Prerequisite: Graduate standing in music.

A survey of references and sources consulted in graduate music courses; format for papers and thesis, including footnotes and bibliography. Research methods in music are explored.

5263 Topics in Music History

(3-0) 3 hours credit. Prerequisite: Graduate standing in music.

A study of works and styles appropriate to the topics listed below. Topics are: 1. Middle Ages. 2. Renaissance. 3. Baroque Period. 4. Classic Period. 5. Romantic Period. 6. Twentieth Century. 7. Music Practices and Styles. Course may be repeated for credit when topics vary. Topics may be taken concurrently.

5403 Psychological Foundations of Music Education

(3-0) 3 hours credit. Prerequisite: Graduate standing in music.

A study of the psychological foundations of music education. An investigation of such topics as perception of and responses to music, the nature of musical attributes, music learning, and the measurement of musical behavior.

5413 Research in Music Education

(3-0) 3 hours credit. Prerequisite: Graduate standing in music.

An introduction to historical, philosophical, descriptive, and experimental research in music education. Students will conduct a research study and prepare a final report.

5433 Performance Repertoire

(3-0) 3 hours credit. Prerequisite: Graduate standing in music.

A study of the solo, chamber, and orchestral repertoire.

5523 Rehearsal Techniques

(3-0) 3 hours credit. Prerequisite: Graduate standing in music.

A study of rehearsal techniques including tone development, phrasing, rehearsal score study, style, and rehearsal organization. Topics are: 1. Choral. 2. Instrumental. Course may be repeated for credit when topics vary. Topics may be taken concurrently.

5533 Pedagogy of Musical Performance

(3-0) 3 hours credit. Prerequisite: Graduate standing in music.

Techniques and materials of teaching musical performance to the college level student. A critical comparison of existing materials is included. Each student is required to demonstrate teaching techniques.

5542 Music Performance

(2-0) 2 hours credit.

Private instruction in the following instruments: baritone, bassoon, clarinet, conducting, contrabass, cornet, flute, classical guitar, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, voice. Seminar attendance may be required. May be repeated for credit.

5554 Music Performance-Performance Emphasis

4 hours credit. Prerequisite: Graduate standing in music.

Private instruction for graduate students with emphasis in performance. Instruction offered in baritone, bassoon, clarinet, conducting, contrabass, cornet, flute, classical guitar, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, violin, viola, violoncello, voice. Seminar attendance may be required. May be repeated for credit.

5572 Class Piano Practicum

(2-0) 2 hours credit. Prerequisite: Graduate Standing in Music.

A study of pedagogical techniques and materials used in teaching class piano. Students will have an opportunity to tutor individual students under the supervision of the instructor.

5583 Advanced Instrumental Techniques

(3-0) 3 hours credit. Prerequisite: Graduate Standing in Music.

A study of advanced playing and teaching techniques, selection of materials, and maintenance care for woodwind, brass, and percussion instruments. Designed primarily for instrumental music teachers.

5593 Elementary Music

(3-0) 3 hours credit. Prerequisite: Graduate Standing in Music.

A study of the current methods and materials used in teaching elementary music. Classroom instruments will also be studied.

5722 Orchestra

(0-3) 2 hours credit.

The study of selected works for the orchestra through ensemble participation in rehearsal and performance. May be repeated for credit.

5732 Chamber Chorale

(0-3) 2 hours credit.

The study of selected works for mixed voices through ensemble participation in rehearsal and performance. May be repeated for credit.

5782 Chamber Music

(0-3) 2 hours credit.

Study and performance of music from the chamber literature. May be repeated for credit.

6233 Twentieth Century Analytical Techniques

(3-0) 3 hours credit. Prerequisite: Graduate standing in music.

Applied analysis of contemporary music using techniques designed to aid the performer and music educator in a fuller understanding of music of our century. Interpretation of new notation and specific performance techniques for both solo and ensemble are emphasized.

6313 The Use of Microcomputers in Music Education

(3-0) 3 hours credit. Prerequisite: Graduate standing in music.

A study of the role of microcomputers in music education. Students will be given the opportunity to learn basic programming techniques with specific applications to music instruction. Currently available software and hardware applicable to music instruction will be examined.

6423 Seminar in Music Education

(3-0) 3 hours credit.

Studies in the philosophy, historical background, and current trends in music education.

6543 Diction For Singers

(3-0) 3 hours credit. Prerequisite: Graduate standing in music.

A study of performance diction for singers. The pronunciation of the languages listed below as it applies to public performance. Topics include: English and French; Italian and German. May be repeated for credit when topics vary.

6913 Project in Music Education

(3-0) 3 hours credit. Prerequisite: Admission to Candidacy and permission of the Graduate Advisor and project director.

Offers the opportunity to complete a professional project in music education relevant to the student's background, interests, and/or needs. The project should include, but not necessarily be limited to, appropriate written documentation. May be repeated for credit, but no more than 3 hours will apply to the Master's degree. Enrollment is required each term in which the project is in progress.

6941 Recital

(1-0) 1 hour credit. Prerequisite: Admission to Candidacy and permission of the Graduate Advisor and music performance instructor. Concurrent registration required in MUS 5554. A recital of approximately one hour in length is required of all students in the performance emphasis.

6951-3 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 not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours will apply to the Master's degree.

6971-3 Special Problems

1-3 hours credit. Prerequisite: Consent of instructor.

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

6983 Master's Thesis

(3-0) 3 hours credit. Prerequisites: Admission to Candidacy and permission of the Graduate Advisor and thesis director.

Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.

COLLEGE OF SCIENCES AND ENGINEERING

DIVISION OF EARTH AND PHYSICAL SCIENCES

MASTER OF SCIENCE DEGREE IN CHEMISTRY

The purpose of the graduate program in chemistry is to offer the student the opportunity to acquire a sound preparation of the fundamentals in several areas of chemistry, to introduce the student to recent advances in chemical theory and methods, and to encourage research in a specific area of study.

Graduate study in chemistry is offered leading to the M. S. degree with the following interest areas: analytical and environmental chemistry, bio-organic chemistry, bio-physical chemistry, inorganic chemistry, macromolecular chemistry, organic chemistry, physical chemistry and chemical physics.

Faculty expertise in each of the interest areas offers the opportunity for direct student-faculty interaction for Thesis development through course work and research. Additional cooperative projects and programs are available with other area research institutions.

Qualified students are encouraged to apply for teaching and/or research assistantships and fellowships. Requests should be directed to the Director of the Division of Earth and Physical Sciences at the same time application is made for admission to The University.

Thesis Option in Chemistry

Special Admission Requirements. In addition to satisfying the university-wide graduate admission requirements, a candidate for the Master of Science degree with a major in Chemistry must complete or have completed a minimum of twenty-four undergraduate semester hours in chemistry, of which twelve or more must be upper-division courses. Included in the undergraduate chemistry requirement are two semesters each of both organic and physical chemistry with the appropriate laboratories. All undergraduate chemistry courses must be completed with a grade point average of B or higher.

A minimum of two letters of recommendation from persons familiar with the applicant's undergraduate scholastic record must be sent directly to the Division of Earth and Physical Sciences at the same time application is made for admission to The University.

Degree Requirements. The Master of Science program requires the successful completion of a minimum of 30 semester hours. The following plan must be followed by all candidates:

A. Required Courses (21 semester hours)

CHE 5113	Advanced Organic Chemistry I	(3 semester hours)
CHE 5133	Advanced Inorganic Chemistry I	(3 semester hours)
CHE 5163	Advanced Instrumental Analysis	(3 semester hours)
CHE 5213	Chemical Thermodynamics	(3 semester hours)
CHE 5271	Graduate Seminar in Chemistry	(3 semester hours)
CHE 6983	Master's Thesis, including an oral defense of the written thesis.	(6 semester hours)

Registration for Graduate Seminar in Chemistry is required for each semester of residence, although no more than 3 semester hours of credit can be applied to the Master's Degree.

B. A minimum of 6 semester hours in Chemistry, as recommended by the Committee on Graduate Studies and approved by the Division Director and Dean, are required. The following interest areas are available for study:

1. Analytical and Environmental Chemistry
2. Bio-organic Chemistry

- 3. Biophysical Chemistry
- 4. Inorganic Chemistry
- 5. Organic Chemistry
- 6. Physical Chemistry and Chemical Physics
- C. A minimum of 3 semester hours of supportive electives are required in chemistry, advanced mathematics, computer science, earth and physical sciences, and/or biology as recommended by the Committee on Graduate Studies and approved by the Division Director and Dean.
- D. Students must successfully defend their thesis research results before their Graduate Committee prior to the submission of the thesis to the Dean of the College for approval.

All candidates for the degree must be admitted to candidacy normally at the end of one semester of full-time study or upon completion of 12 semester hours of graduate work. To be admitted to candidacy a student must have an acceptable Program of Study and must be recommended for Admission to Candidacy by the appropriate Committee on Graduate Studies and Division Director and must be approved for Admission to Candidacy by the Dean. Additional University requirements for Admission to Candidacy are set forth in that section of the present catalog.

Non-Thesis Option in Chemistry

Admission Requirements:

General University-wide graduate admission requirements.

Degree Requirements:

Required 36 hour degree program:

- A. Required courses (21 semester hours)

CHE 5113	Advanced Organic Chemistry I
CHE 5133	Advanced Inorganic Chemistry I
CHE 5163	Advanced Instrumental Analysis
CHE 5183	Advanced Spectral Measurement and Interpretation
CHE 5213	Chemical Thermodynamics
CHE 5271	Graduate Seminar in Chemistry
CHE 5973	Directed Research

(3 semester hours)

Registration for Graduate Seminar in Chemistry is required for each semester of residence, although no more than three semester hours of credit can be applied to the degree.

- B. Six semester hours of laboratory work in Chemistry covering advanced organic and inorganic/physical laboratory techniques normally to be taken as Independent Study and completed prior to enrolling in CHE 5973.
- C. Nine semester credit hours of elective organized course support work within the College of Sciences and Engineering as recommended by the Committee on Graduate Studies and approved by the Division Director and Dean, are required.

All candidates for the non-Thesis degree will be admitted to candidacy by satisfactorily completing a written qualifying examination which must be taken after completion of the core course requirements consisting of CHE 5113, 5133, 5163, 5183 and 5213*. A final oral examination, scheduled during the student's last semester of work, is required for completion of the degree program.

*A student has one year after completion of the core courses to satisfy this requirement.

COURSE DESCRIPTIONS

CHEMISTRY

(CHE)

5113 Advanced Organic Chemistry I

(3-0) 3 hours credit. Prerequisites: Eight hours each of undergraduate organic chemistry and physical chemistry or graduate standing in chemistry.

An advanced study of topics in organic chemistry such as natural products; conformational analysis; nonbenzenoid aromaticity; biogenesis and biosynthesis; stereochemistry; modern synthetic reactions involving functional group transformations.

5133 Advanced Inorganic Chemistry I

(3-0) 3 hours credit. Prerequisite: Three credits of upper-division inorganic chemistry. Modern theories of chemical bonding and structure in inorganic chemistry; acid-base reactions; electrochemistry; symmetry; and descriptive chemistry.

5143 Advanced Analytical Chemistry

(2-3) 3 hours credit. Prerequisites: Eight hours of undergraduate physical chemistry and three hours of upper-division analytical chemistry or consent of the instructor.

A study of chemical separations and measurements, the nature of kinetics and equilibrium, oxidation-reduction and electroanalytical methods.

5163 Advanced Instrumental Analysis

(3-0) 3 hours credit. Prerequisites: CHE 3224 and CHE 3232.

Study of principles relating the molecular structure and the physiochemical basis of absorption, emission, resonance and photoionization spectroscopies, mass spectrometry, x-ray diffraction spectroscopy, and electrochemical and chromatographic techniques.

5183 Advanced Spectral Measurement and Interpretation

(1-4) 3 hours credit. Prerequisite: CHE 5163 or consent of instructor.

Theory of and selected laboratory experiments and spectral interpretations of NMR, IR, UV, AA, x-ray, and mass spectrometry as well as gas and liquid chromatography.

5213 Chemical Thermodynamics

(3-0) 3 hours credit. Prerequisites: Eight hours each of undergraduate organic chemistry and physical chemistry or graduate standing in chemistry.

An advanced study of chemical thermodynamics. Discussion of chemical, electrochemical, and interphase equilibria.

5223 Chemical Kinetics

(3-0) 3 hours credit. Prerequisite: CHE 3224 or its equivalent.

An advanced study of topics in chemical kinetics, such as electrochemical processes and transport phenomenon in inorganic and organic systems.

5243 Quantum Chemistry

(3-0) 3 hours credit. Prerequisites: CHE 4253 and MAT 2213 or consent of instructor.

A study of concepts and methods of quantum mechanics with emphasis on the nature of the chemical bond and the interaction of electromagnetic radiation with molecules.

5271 Graduate Seminar in Chemistry

(0-3) 1 hour credit. Prerequisite: Graduate standing in chemistry or consent of the Division Director.

Current research seminars presented by faculty, visiting lecturers, and Master's candidates. Chemistry Master's Degree seeking students must register every semester while in residence, but only 3 hours of credit will apply towards the Master's Degree.

5303 Environmental Chemistry

(2-3) 3 hours credit. Prerequisite: One year of undergraduate chemistry or consent of instructor.

An introductory course relating basic inorganic, organic, physical and biochemical principles to environmental problems. Analytical methods used in environmental control are considered.

5503 Bio-Organic Chemistry

(3-0) 3 hours credit. Prerequisite: CHE 5113 or consent of the instructor.

Chemical transformations of biochemically important organic compounds and the examination of enzyme active sites from the viewpoint of mechanisms based on chemical modeling studies. Discussion of theories of chemical catalysis, stereochemistry, electron-transfer, chemical kinetics, and molecular structure.

5513 Biophysical Chemistry

(3-0) 3 hours credit. Prerequisites: CHE 5113 and CHE 5213 or consent of the instructor. Physical chemistry of natural macromolecular systems. Spectroscopy: UV, Visible, and CD spectroscopy of proteins and nucleic acids; fluorescence of proteins, nucleic acids, and extrinsic labels; nuclear and electron magnetic resonance of enzymes and cell membranes. Thermodynamics of macromolecular interactions: linked functions and allosteric models.

5623 Statistical Thermodynamics

(3-0) 3 hours credit. Prerequisite: CHE 3224 or its equivalent.

A molecular approach to the study of the physico-chemical properties of gases, liquids, and solids. A molecular study of chemical and interphase equilibria.

5973 Directed Research

3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate Advisor, the Division Director and Dean of the College in which the course is offered.

The directed research course may involve either a laboratory or a theoretical problem. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6113 Advanced Organic Chemistry II

(3-0) 3 hours credit. Prerequisite: CHE 5113 or the consent of the instructor.

Study of organic reaction mechanisms with emphasis on physical organic and kinetic techniques. Application of molecular orbital theory to organic reactions.

6123 Methods of Organic Synthesis

(3-0) 3 hours credit. Prerequisite: CHE 5113 or the consent of the instructor.

The theory of molecule building to achieve total synthesis of interesting and important compounds through a systematic examination of modern methods of organic functional group transformations. Rational syntheses of organic molecules such as natural products, terpenes, steroids, and other molecules of biological importance.

6133 Advanced Inorganic Chemistry II

(3-0) 3 hours credit. Prerequisite: CHE 5133.

Theories of bonding in transition metals including valence bond, crystal field and molecular orbital theory; metal ion complexation, transition metal geometry; mechanisms of transition metal ion reactions.

6143 Electrochemistry

(3-0) 3 hours credit. Prerequisites: CHE 5133, CHE 5163, and CHE 5213.

An advanced study of thermodynamic and mass-charge transport properties of electrolytes. Solute-solvent interactions and fundamental electrode processes. Analytical separatory, and synthetic applications of electrochemical processes.

6183 Topics in the Chemistry of Natural Products

(3-0) 3 hours credit. Prerequisites: CHE 5113 and CHE 6123 or consent of the instructor. Selected topics in the chemistry and biochemistry of natural products and related compounds of biological and medicinal interest.

6903 Progress in Chemistry

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

An organized course offering the opportunity for a specialized study of current aspects of chemistry not normally available as part of the regular course offerings. The course may be repeated for credit, but not more than 6 credit hours may be applied to the Master's degree.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate Advisor, the Division Director and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. For students needing specialized work not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

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

6983 Master's Thesis

3 hours credit. Prerequisites: Admission to candidacy and permission of the Graduate Advisor and thesis director.

Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.

MASTER OF SCIENCE DEGREE IN GEOLOGY

The purpose of the graduate program in geology is to offer the student the opportunity for advanced study and research leading to the M.S. degree in the following emphasis areas: (1) Water Resources (Hydrogeology) and (2) Applied Geology.

Faculty expertise in each of the areas of emphasis offers the opportunity for direct student-faculty interaction for thesis development through course work and research.

Qualified students are encouraged to apply for teaching and/or research assistantships and fellowships. Requests should be directed to the Director of the Division of Earth and Physical Sciences at the same time application is made for admission to the University.

Special Admission Requirements. In addition to satisfying the University-wide graduate admission requirements, applicants are expected to have completed an undergraduate degree in Geology (equivalent to UTSA's) or a bachelor's degree in Chemistry, Physics, Mathematics, Computer Science, Life Sciences, or Engineering from an accredited institution of higher education. Applicants with deficiencies in their academic background are required to make up these deficiencies in residence before unconditional admission to the graduate program will be granted. In such cases, students should anticipate that additional time will be required to complete the degree. All applicants must submit the GRE Advanced Test score in Geology and three letters of recommendation, from former instructors, to be sent to the Director, Division of Earth and Physical Sciences.

Degree Requirements. The Master of Science program in Geology requires the successful completion of a minimum of 33 semester hours.

All candidates for the degree must complete:

A. 8 semester hours minimum in the Geology Core Curriculum:
 GEO 5991 Graduate Seminar in Geology (2 hours)
 GEO 6983 Masters Thesis (6 hours)

Registration for Graduate Seminar in Geology is required during the first two semesters of residence. No more than 3 semester hours of Graduate Seminar and 6 semester hours of Master's Thesis can be applied to the Master's Degree.

B. 12 semester hours minimum in designated Geology courses associated with the specific area of emphasis as listed below:

Water Resources Emphasis (Hydrogeology)

GEO 5603 Hydrogeology
 GEO 5703 Advanced Hydrogeology
 GEO 6203 Aqueous Geochemistry
 GEO 6603 Subsurface Fluid Mechanics

Applied Geology Emphasis

GEO 5503 Regional Stratigraphy
 GEO 5894 Advanced Structural Geology
 GEO 5903 Carbonate Petrology
 GEO 6403 Advanced Geophysics

C. 13 semester hours minimum in geology elective courses selected with the approval of the advisor from the list of courses below:

GEO 5423 Advanced Mineralogy
 GEO 5454 Advanced Paleontology
 GEO 5804 Igneous-Metamorphic Petrology
 GEO 5953 Sandstone Petrology
 GEO 5973 Directed Research
 GEO 6971-3 Special Problems

- ENV 6813 Water Resources
- ENV 6843 Groundwater Resources
- ENV 6893 Water Pollution Control

All candidates for the degree must be admitted to candidacy normally at the end of one semester of full-time study or upon completion of 12 semester hours of graduate work. To be admitted to candidacy a student must have an acceptable Program of Study and must be recommended for Admission to Candidacy by the appropriate Committee on Graduate Studies and Division Director and must be approved for Admission to Candidacy by the Dean. Additional University requirements for Admission to Candidacy are set forth in that section of the present catalog.

D. Students must successfully defend their thesis research results before their Graduate Committee prior to the submission of the thesis to the Dean of the College for approval.

COURSE DESCRIPTIONS

GEOLOGY (GEO)

5423 Advanced Mineralogy

(2-3) 3 hours credit. Prerequisites: GEO 3043, 3052, or consent of the instructor. Study of crystal chemistry, thermodynamics, and phase equilibria of various mineral groups; petrology and paragenesis relationships will be examined. May be repeated for credit when topics vary.

5454 Advanced Paleontology

(3-3) 4 hours credit. Prerequisites: GEO 3083, 3123, 3131 or consent of the instructor. Study of fossil assemblages, environmental significance of fossil associations, and reconstruction of depositional environments as related to the separation and differentiation of rock units in time and space.

5503 Regional Stratigraphy

(3-0) 3 hours credit. Prerequisites: GEO 3083, 3123, 3131 or consent of instructor. Chronologic study of the stratigraphic systems, physical properties and facies, depositional and paleogeographic implications, correlation, nomenclature and biostratigraphy.

5603 Hydrogeology

(3-0) 3 hours credit. Prerequisite: GEO 4623 or consent of the instructor. Mathematical treatment of the physical principles governing the flow of groundwater, emphasis on well hydraulics and flow system analysis.

5703 Advanced Hydrogeology

(3-0) 3 hours credit. Prerequisites: GEO 5603, 6203, and consent of the instructor. Hydrogeochemical models, emphasis on finite element method, contamination transport, and geochemical models.

5804 Igneous-Metamorphic Petrology

(3-3) 4 hours credit. Prerequisites: GEO 3043, 3052, 3103, 3111, or consent of the instructor. Origin of magmas, tectonic and chemical controls, and evolution. Origin and development of metamorphic grade, facies, textures, and reactions. Detailed study of specific igneous-metamorphic rock suites.

5894 Advanced Structural Geology

(3-3) 4 hours credit. Prerequisites: GEO 3103, 3111, or consent of the instructor. In-depth study of the various aspects of structural geology; stress and strain, behavior of materials, failure criteria, fault analysis, rheological properties of geologic materials, fold analysis, subsurface analysis.

5903 Carbonate Petrology

(2-3) 3 hours credit. Prerequisites: GEO 3043, 3052, 3123, 3131, or consent of the instructor. Thin-section analysis and hand-specimen study of carbonate rocks, carbonate classifications, modern and ancient carbonate facies models, and carbonate diagenesis.

5953 Sandstone Petrology

(2-3) 3 hours credit. Prerequisites: GEO 3043, 3052, 3123, 3131, or consent of the instructor. Thin-section analysis and hand-specimen study of clastic rocks, classifications, characteristics of source areas and depositional provinces of clastic sedimentary rocks, and clastic diagenesis.

5973 Directed Research

(3-0) 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate Advisor, the Division Director and Dean of the College in which the course is offered.

The directed research course may involve either a laboratory or a theoretical problem. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

5991 Graduate Seminar in Geology

(0-3) 1 hour credit. Prerequisite: Graduate standing in Geology or consent of the Division Director.

Current research seminars presented by faculty, visiting lecturers, and Master's candidates. Geology Master's Degree seeking students must register for the first two semesters of residence, but only 3 hours of credit may be applied towards the Master's Degree.

6203 Aqueous Geochemistry

(2-3) 3 hours of credit. Prerequisites: GEO 3373, 3123, 3131, or consent of the instructor. In-depth study and application of chemical concepts to geological problems; analyses of water-rock interaction at various temperatures and pressures.

6403 Advanced Geophysics

(3-0) 3 hours credit. Prerequisites: GEO 4383, 4391, or consent of the instructor. Seismological and other geophysical methods and data for studying the physical and mechanical properties of the earth's crust, mantle, and core.

6603 Subsurface Fluid Mechanics

(3-0) 3 hours credit. Prerequisites: MAT 3243, GEO 5703, and consent of the instructor. Fluid properties, fluid dynamics, Navier-Stokes equations, laminar flow, stability, boundary-layer theory, and flow nets.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of the instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Problems courses may be repeated for credit when the topics vary, but not more than 3 hours, regardless of discipline, will apply to a Master's degree.

6983 Master's Thesis

3 hours credit. Prerequisites: Admission to candidacy and permission of the thesis director. Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.

MASTER OF SCIENCE IN NATURAL RESOURCES

The Master of Science Degree in Natural Resources is available to students whose undergraduate degrees are in such areas as earth, physical or biological sciences, engineering, economics or mathematics. This program is for those individuals wanting the opportunity to prepare for careers involving the allocation, regulation, utilization, and protection of natural resources and environmental quality and for people in mid-career who want to improve their professional qualifications.

Special Admission Requirements. In addition to satisfying the university-wide graduate admission requirements, the applicant must have completed at least eighteen hours (twelve of which must be upper division) of course work in physical or biological sciences, engineering, mathematics, economics, or environmental science and the equivalent of STA 1993.

Degree Requirements. The minimum number of semester hours required for this degree, exclusive of course work or other study required to remove deficiencies, is 36.

All candidates for the degree must complete:

A. Required Courses (30 semester hours)

- ENV 5533 Environment and Systems
- ENV 6603 Environmental Systems Analysis
- ENV 6613 Environmental Ecology
- ENV 6623 Economics of Environmental Resources
- ENV 6643 Concepts for Public and Environmental Management
- ENV 6813 Water Resources
- ENV 6823 Land Resources
- ENV 6853 Energy Resources
- ENV 6863 Air Quality Management
- ENV 6873 Project Analysis

B. Elective Courses (6 semester hours)

Six (6) semester hours of course work from a related field in Natural Resources or from another support area, as recommended by the Committee on Graduate Studies and approved by the Division Director and Dean.

Students who elect to write a Master's Thesis are required to enroll in 6 hours of ENV 6983. Thesis must consist of 6 hours.

All candidates for the degree are required to pass oral comprehensive examinations, which will be scheduled after a student has completed at least 30 semester hours of course work.

All candidates for the degree must be admitted to candidacy normally at the end of one semester of full-time study or upon completion of 12 semester hours of graduate work. To be admitted to candidacy a student must have an acceptable Program of Study and must be recommended for Admission to Candidacy by the appropriate Committee on Graduate Studies and Division Director and must be approved for Admission to Candidacy by the Dean. Additional requirements for Admission to Candidacy are set forth in the Master's Degree Regulations section of the catalog.

COURSE DESCRIPTIONS

NATURAL RESOURCES

(ENV)

5363 Environmental Geology

(3-0) 3 hours credit.

Geologic materials and processes as related to their influence on man's physical environment. Effects of landscape modification and geologic hazards such as earthquakes and landslides, geologic aspects of waste disposal, water resources, and planning.

5403 Health Effects of Environmental Pollutants

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

Lethal, sublethal, and nonlethal effects of pollutants will be considered. Pathways of toxic substances, and direct and indirect effects will be investigated. Each student will research and report on an environmental pollutant.

5533 Environment and Systems

(3-0) 3 hours credit.

Investigates the cultural and physical phenomena that interact in shaping the evolution of urban and regional systems. The climate, geology and hydrology of such systems are studied. Man's role in environmental change is assessed. Urban systems are also examined in light of expanding populations and increased energy demands.

5723 Applied Geosciences

(3-0) 3 hours credit.

Studies in the applied geosciences, such as geophysics, engineering geology, hydrogeology, and meteorology. Laboratory practice, calculations, and field work related topics will be covered. May be repeated for credit when the topics vary.

5813 Energy Conservation and Environment

(3-0) 3 hours credit. Prerequisite: ENV 6603 or consent of instructor.

Analysis of economic opportunities associated with energy conservation practices in transportation, building and construction, industry, utilities, and food production; assessments of environmental consequences resulting from energy production, conversion, and utilization; technologies applicable to the evaluation of trade-offs among energy, environment, and economic considerations.

5973 Directed Research

3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate Advisor, and the Division Director and Dean of the College in which the course is offered.

The directed research course may involve either a laboratory or a theoretical problem. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6603 Environmental Systems Analysis

(3-0) 3 hours credit. Prerequisites: MAT 1033 and STA 1993 or equivalent, or consent of instructor.

Introductory course in systems analysis emphasizing its application for the management of environmental and public systems. Problem formulation, mathematical modeling, and solution procedures will be discussed. Quantitative tools will include marginal analysis, classical optimization, linear programming, and dynamic programming, stressing both uses and limitations.

6613 Environmental Ecology

(3-0) 3 hours credit.

The impact of man's activities on the environment; their effect on water, land, animal, and human resources. An evaluation of present and future strategies to preserve a healthy environment.

6623 Economics of Environmental Resources

(3-0) 3 hours credit.

A study of governmental and private programs to promote prudent, efficient use of natural resources by society. Cost benefit analysis is utilized to evaluate alternate solutions in formulating policy.

6643 Concepts for Public and Environmental Management

(3-0) 3 hours credit.

Application of management concepts as they relate to development of human and natural resources and urban growth. The initiation, organization, and development of programs to utilize human and natural resources in urban growth are examined.

6813 Water Resources

(3-0) 3 hours credit.

Application of management principles to the efficient utilization of water resources by society. Study water as a resource, its value, uses and changing role over time. Formulation of public policy toward water resources is studied.

6823 Land Resources

(3-0) 3 hours credit.

Analysis of alternative land uses and the methodology by which land use is evaluated. The changing role of land as a resource as it is related to human and technological development is examined. Legal dimensions of natural resources will be considered.

6843 Groundwater Resources

(3-0) 3 hours credit.

Study of the characteristics, occurrence, distribution, circulation, transport, quality, and consumption of groundwater resources with emphasis placed on protection from toxic wastes. Flow in porous media, well hydraulics, and basin-wide management will be considered, with emphasis on conservation of groundwater resources.

6853 Energy Resources

(3-0) 3 hours credit.

The flow of energy through agricultural, commercial and industrial social systems will be traced from production to final dissipation as heat, and each step will be investigated together with its environmental impacts.

6863 Air Quality Management

(3-0) 3 hours credit.

Introduction to the field of air pollution control; sources and physical, chemical and biological effects of air pollutants. Overall objectives and systematic efforts to deal with air pollution, including air quality criteria; development of air quality standards, and plans for implementing them.

6873 Project Analysis

(3-0) 3 hours credit. Prerequisite: Minimum 21 credit hours of Natural Resources courses completed including ENV 6603, 6623, and 6643.

This course will cover the complex processes and factors involved in the evaluation of large scale projects involving natural resources. It will bring together tools to evaluate the physical, economic, financial, legal, and political constraints of such projects. These involve such issues as physical and environmental suitability, economic and financial viability and legal and political feasibility.

6883 Solid Waste Management

(3-0) 3 hours credit. Prerequisite: ENV 6603 or consent of instructor.

Characteristics of and problems associated with solid wastes from municipal, industrial, and wastewater treatment sources; methods of collection, processing, and disposal of various kinds of solid waste; the systems approach applied to facility location, energy and material recovery, and regional solid waste management.

6893 Water Pollution Control

(3-0) 3 hours credit. Prerequisite: CHE 5303, a course in fluid mechanics or consent of instructor.

Principles and methods of water pollution control process design and operation; selection and optimization of total treatment processes as well as appurtenances and accessory equipments; methods involved in the design process and the selection of the hardware.

6913 Decision Analysis for Public and Environmental Management

(3-0) 3 hours credit. Prerequisite: ENV 6603 or consent of instructor.

The role of analysis tools in the areas of costing analysis, decision, and utility theory as they are applied to the efficient utilization of natural resources. The subject is approached from a public sector rather than from a business firm point of view.

6923 Modeling and Analysis of Environmental Systems

(3-0) 3 hours credit. Prerequisites: ENV 6603 and ENV 6913, or consent of instructor. An advanced course in the application of systems analysis to the solutions of environmental problems; emphasis will be on gaining practical experience in the art of building and solving mathematical models. The approach will be problem, rather than technique, oriented.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate Advisor, the Division Director and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. For students needing specialized work not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Problems courses may be repeated for credit when the topics vary, but not more than six (6) hours, regardless of discipline, will apply to a Master's Degree.

6983 Master's Thesis

3 hours credit. Prerequisites: Admission to candidacy and permission of the Graduate Advisor and thesis director.

Thesis research preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.

DIVISION OF LIFE SCIENCES MASTER OF SCIENCE DEGREE IN BIOLOGY

The graduate program offers opportunities for advanced study and research leading to the M.S. degree in Biology in two general areas: Molecular Cell Biology and General Physiology. A thesis option is offered to students desiring an opportunity to develop expertise in research techniques and data analysis; a non-thesis option is offered for those who wish the opportunity to earn the M.S. degree primarily through organized course work. The thesis option is recommended for students who are planning a career in research or who contemplate pursuing a doctorate in one of the life sciences. The non-thesis option might be suitable for students interested in secondary school teaching in the life sciences.

Graduate faculty research interests include Biochemistry, Cellular Biology, Developmental Biology, Ecology, Genetics, Microbiology, Neurobiology, Physiology, and Plant Sciences. The multidisciplinary nature of the program also allows students the opportunity to broaden their educational background at the graduate level. Individual programs are organized around each student's interests in consultation with the student's Graduate Advisor.

Qualified students are encouraged to apply for teaching assistantships and fellowships. Requests should be directed to the Director of the Division of Life Sciences at the same time application is made for admission to the University of Texas at San Antonio.

Special Admission Requirements. In addition to satisfying the University-wide graduate admission requirements, applicants are expected to have completed an undergraduate major in one of the biological sciences, with course work comparable to that required for the Bachelor of Science Degree in Biology at UTSA. Students whose undergraduate preparation is deficient in certain areas, but who meet the minimum University standards for admission, may be admitted and required to complete specific undergraduate or graduate courses as conditions of admission. In such cases, students should anticipate that additional time will be required to complete the degree. All applicants must submit two letters of recommendation directed to the Chairperson of the Graduate Studies Committee, Division of Life Sciences.

Degree Requirements. All candidates for the degree are required to complete a minimum of 36 semester hours of graduate credit that has been approved by the student's Graduate Committee, the Division Director, the Division's Committee on Graduate Studies, and the Dean of the College. These 36 hours will be subject to the following conditions.

1. A minimum of 18 semester hours of graduate credit in organized classes must be earned within the Division. This total may include up to 6 hours of approved upper division, undergraduate course work, and a maximum of 3 semester hours earned in a graduate seminar (BIO 5053).
2. An additional 18 hours of graduate credit as approved by the Committee on Graduate Studies, the Division Director, and the Dean. This total may include a maximum of 6 hours of Directed Research (BIO 5973). For students electing the non-thesis option, a minimum of 3 hours of Directed Research (BIO 5973) must be included. Students electing the thesis option must complete 6 hours of Master's Thesis (BIO 6983) as part of this total.

Biology M.S. students are expected to apply for admission to candidacy at the end of one semester of full-time study or upon completion of 12 semester hours of graduate credit. The Application for Admission to Candidacy, accompanied by an acceptable Program of Study, must be submitted through the Division's Committee on Graduate Studies and the Division Director for their recommendation, and to the Dean of the College for approval. Additional requirements for Admission to Candidacy are specified in the appropriate section of the current catalog.

As specified by University regulations, all students must pass a comprehensive examination administered by their Graduate Committee. This exam is normally given during the semester prior to the semester during which degree requirements are to be completed. Students electing the thesis option also must successfully defend their thesis research results before their Graduate Committee prior to the submission of the thesis to the Dean of the College for approval.

COURSE DESCRIPTIONS

BIOLOGY (BIO)

5053 Seminar in Life Sciences

(3-0) 3 hours credit. Prerequisite: Graduate standing.

Discussions, current literature and recent advances in specialized areas of the biological sciences. Seminars are organized according to areas of interest. May be repeated but no more than 3 hours may be applied to the degree.

5263 Microbial Ecology

(3-0) 3 hours credit. Prerequisite: BIO 3713 or the equivalent.

A study of the interrelationships between microorganisms and their environment, especially natural habitats of microorganisms (including normal human flora and pathogens), parasitism, and opportunism in various microbial species.

5313 Cytogenetics

(3-0) 3 hours credit. Prerequisite: BIO 2313 or the equivalent.

An analysis of chromosome structure and function, gene location, crossing-over and variations in chromosome structure and number.

5333 Advanced Population Genetics

(3-0) 3 hours credit. Prerequisites: BIO 2313 and BIO 2322 or the equivalents. Biostatistics highly recommended.

An experimental approach to the interaction of genotype and environment in populations with emphasis on mutagenesis, selection, polymorphism, and adaptive mechanisms.

5353 Molecular and Biochemical Genetics

(3-0) 3 hours credit. Prerequisites: BIO 2313 and BIO 3513 or the equivalents.

Molecular and biochemical aspects of structure, replication, mutation and phenotypic expression of genetic material.

5363 Microbial Genetics

(3-0) 3 hours credit. Prerequisites: BIO 2313 and BIO 3713 or the equivalents.

A study of bacterial, fungal and viral genetics. Emphasis on the current literature, data interpretation and experimental techniques.

5403 Advanced Comparative Animal Physiology

(3-0) 3 hours credit. Prerequisite: BIO 4353 or the equivalent.

Physiology of the organs and organ systems of animals.

5423 Neuroanatomy

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

The anatomy of the vertebrate nervous system.

5433 Neurophysiology

(3-0) 3 hours credit. Prerequisite: BIO 4353 or the equivalent.

Physiology of the nervous system. Emphasis on sensory and motor systems and neural correlations of behavior.

5443 Neurochemistry

(3-0) 3 hours credit. Prerequisites: BIO 3513, 3522, and 4433.

An examination of basic biochemical phenomena involved in normal neural processes and some pathological changes associated with neurobiological diseases and disorders.

5463 Reproductive Biology

(3-0) 3 hours credit. Prerequisites: Courses in organ systems physiology and endocrinology or consent of instructor.

A comparative study of mammalian reproduction with emphasis on vertebrate/mammalian

reproduction, including cellular and systems mechanisms, hormonal regulation, and the effects of environmental factors.

5513 Advanced Biochemistry

(3-0) 3 hours credit. Prerequisite: BIO 3513 or the equivalent.

An in-depth discussion of structure-function relationships in biological systems, including bioenergetics of metabolism and hormonal and non-hormonal regulation of metabolic pathways.

5523 Enzymes

(3-0) 3 hours credit. Prerequisite: BIO 3513 or the equivalent.

A study of enzyme structure and mechanism, inhibitors, cofactors, kinetics, and regulation.

5543 Pharmacology and Toxicology

(3-0) 3 hours credit. Prerequisites: BIO 3513, 3522, 3413, and 3422.

A review of the beneficial, adverse, and toxic reactions of individuals to a variety of drugs and environmental substances. Chemical, biochemical, pharmacological, toxicological, genetic, teratogenic, and pathological aspects will be examined.

5563 Biochemical Macromolecules

(3-0) 3 hours credit. Prerequisite: BIO 3513 or the equivalent.

Structure, function, and isolation of macromolecules. Emphasis is on nucleic acids and proteins and their interactions.

5571-3 Experimental Techniques in the Life Sciences

1 to 3 hours credit. Prerequisite: Consent of instructor.

Topics will include research methods in cell and molecular biology, molecular neurobiology, and microbiology. May be repeated for credit as topics vary.

5633 Cytodifferentiation

(3-0) 3 hours credit. Prerequisite: Graduate standing in the Life Sciences.

Detailed study of selected areas of developmental biology relating to cellular differentiation, including nuclear-cytoplasmic interactions, induction and reversibility of differentiation.

5833 Membrane Structure and Function

(3-0) 3 hours credit. Prerequisite: BIO 3513 or the equivalent.

A study of the composition, organization, transport functions and permeability of natural and model membranes.

5973 Directed Research

3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate Advisor, the Division Director, and the Dean of the College in which the course is offered. The directed research course may involve either a laboratory or a theoretical problem. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6113 Advanced Plant Physiology

(3-0) 3 hours credit. Prerequisite: BIO 4603 or consent of instructor.

Principles of plant physiology and biochemistry, with particular emphasis on plant hormones, nitrogen fixation, plant respiration, photosynthesis, and current research work.

6133 Methods in Field Biology.

(3-0) 3 hours credit. Prerequisite: BIO 3283 or the equivalent.

Examination of techniques to collect, identify, and preserve plants and animals. Field methods used in the analysis of populations and communities will be considered.

6213 Advanced Ecology

(3-0) 3 hours credit. Prerequisite: BIO 3283 or the equivalent.

Interaction of organisms with their environment, allelopathy, competition, distribution, succession, and factors that control growth and dispersal. Special consideration will be given to the concepts of climax, succession, and land management.

6373 Invertebrate Physiology

(3-0) 3 hours credit. Prerequisite: BIO 3413.

An investigation of the mechanisms of respiration, movement, ion and water regulation and hormonal integration in the invertebrates.

6483 Animal Behavior

(3-0) 3 hours credit. Prerequisite: BIO 3413 or consent of instructor.

An examination of neural, endocrine, genetic and environmental determinants of behavior.

6643 Cellular and Molecular Biology

(3-0) 3 hours credit. Prerequisites: BIO 3513 or consent of instructor.

Structure of eucaryotic and prokaryotic cells, functions of biomembranes and cytoplasmic organelles, and regulation of cellular activity.

6663 Experimental Parasitology

(3-0) 3 hours credit. Prerequisite: A course in parasitology or consent of instructor.

A study of animal parasites with special emphasis on the physiology of host-parasite interactions.

6773 Host-Parasite Interactions

(3-0) 3 hours credit. Prerequisite: BIO 3713 or consent of instructor.

A study of infectious disease processes with emphasis on host-parasite relationships of selected microbial pathogens.

6803 Advanced Immunology and Immunochemistry

(3-0) 3 hours credit. Prerequisite: BIO 4743 or consent of instructor.

The study of current concepts of humoral and cell-mediated immunity with emphasis on molecular mechanisms.

6873 Microbial Physiology and Energetics

(3-0) 3 hours credit. Prerequisites: BIO 3513 and BIO 3713.

Consideration of physiological activities of microorganisms with special emphasis on metabolic capabilities of bacteria and other microorganisms.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate Advisor, and the Division Director and Dean of the College in which the course is offered.

Supervised research under the direction of a faculty member. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6971-3 Topics in Modern Biology

1 to 3 hours credit. Prerequisite: Consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. This course may be repeated for credit when the topics vary, but not more than six (6) hours, regardless of discipline, may be applied to the Master's degree.

6983 Master's Thesis

3 hours credit. Prerequisites: Admission to candidacy and permission of the Graduate Advisor and thesis director.

Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.

MASTER OF SCIENCE DEGREE IN BIOTECHNOLOGY

The M.S. in Biotechnology offers opportunities for advanced study and research related to the rapidly developing fields of applied biology. A broad common base of knowledge for biotechnology is provided in the M.S. degree by a comprehensive core curriculum that encompasses key areas in Biology, Computer Science, and Statistics. Additional course work for the degree is selected from one of four concentrations from which specialized courses may be chosen. These concentrations are: (1) Molecular Neurobiology, (2) Quantitative Biology, (3) Bioprocessing Technology, and (4) Molecular Toxicology. The opportunity to develop additional technical expertise is also available through Directed Research.

Special Admission Requirements. In addition to satisfying the University-wide Graduate requirements, applicants are expected to have completed an undergraduate major in the sciences with course work comparable to the core required for the Bachelor of Science Degree in Biology at UTSA. Students must also have completed courses equivalent to BIO 3713, 3722 (Microbiology and Laboratory), CS 1713 (Introduction to Computer Science), and STA 1053 (Basic Statistics). Students electing the concentration in Quantitative Biology must have had a course equivalent to MAT 1214 (Calculus I). Students whose undergraduate preparation is deficient in certain areas, but who meet the minimum University standards for admission, may be admitted and required to complete specific undergraduate or graduate courses as conditions of admission. If such courses are listed as deficiencies, they will not count toward the graduate degree for the student. In such cases, students should anticipate that additional time will be required to complete the degree. All applicants must submit two letters of recommendation directed to the Chairperson of the Committee on Graduate Studies for the Master of Science Degree in Biotechnology, Division of Life Sciences.

Degree Requirements. All candidates for the degree will be required to complete a minimum of 36 semester hours of graduate credit that have been approved by the student's Graduate Committee, the Division Director, the Division's Committee on Graduate Studies for the Master of Science Degree in Biotechnology, and the Dean of the College. All candidates for the degree must complete the Biotechnology Core Curriculum and the requirements for one Concentration.

1. Biotechnology Core Curriculum (24 Semester Credit Hours)

- BIO 5053 Seminar in Life Sciences — (Biotechnology)
- BIO 5353 Molecular and Biochemical Genetics
- BIO 5513 Advanced Biochemistry
- BIO 6643 Cellular and Molecular Biology
- BIO 6803 Advanced Immunology and Immunochemistry
- CS 5033 Basic Concepts of Computer Science I
- CS 5043 Basic Concepts of Computer Science II
- STA 5073 Methods of Statistics I

2. Biotechnology Electives (12 Semester Credit Hours)

Each student must complete 12 semester hours of Biotechnology Electives, at least 9 hours of which must be selected from a single Concentration.

Concentration 1. Molecular Neurobiology

- BIO 5423 Neuroanatomy
- BIO 5433 Neurophysiology
- BIO 5443 Neurochemistry
- BIO 5523 Enzymes
- BIO 5563 Biochemical Macromolecules
- BIO 5571-3 Experimental Techniques in Life Science
- BIO 5833 Membrane Structure and Function

Concentration 2: Quantitative Biology

- STA 5083 Methods of Statistics II
- CS 5103 Software Design Methodology
- CS 5143 Software Configuration Management
- CS 6633 Simulation Techniques

Concentration 3: Bioprocessing Technology

- BIO 5363 Microbial Genetics
- BIO 5523 Enzymes
- BIO 5563 Biochemical Macromolecules
- BIO 5571-3 Experimental Techniques in the Life Sciences — Monoclonal Antibodies
- BIO 5571-3 Experimental Techniques in the Life Sciences — Recombinant DNA
- BIO 6873 Microbial Physiology and Energetics

Concentration 4: Molecular Toxicology

- BIO 5423 Neuroanatomy
- BIO 5433 Neurochemistry
- BIO 5443 Pharmacology and Toxicology
- BIO 6483 Animal Behavior

3. Directed Research

Students also may elect to develop expertise in research techniques in a selected emphasis of Biotechnology through Direct Research (BIO 6951-3).

Biotechnology M.S. students are expected to apply for admission to candidacy at the end of one semester of full-time study or upon completion of 12 hours of graduate credit. The application for admission to candidacy, accompanied by an acceptable Program of Study, must be submitted through the Division's Committee on Graduate Studies for the M.S. in Biotechnology and the Division Director for their recommendation, and to the Dean of the College for approval. Additional requirements for admission to candidacy are specified in the appropriate section of the current catalog.

As specified by the University regulations, all students must pass a comprehensive examination administered by a committee appointed by the Dean of the College. This examination will normally be given during the semester prior to the semester during which the degree requirements are to be completed.

DIVISION OF MATHEMATICS, COMPUTER SCIENCE, AND SYSTEMS DESIGN

MASTER OF SCIENCE DEGREE IN MATHEMATICS

The Master of Science Degree in Mathematics is offered with three concentrations:

Concentration 1. Mathematics

Concentration 2. Statistics

Concentration 3. Mathematics Education

Special Admission Requirements. In addition to satisfying the university-wide graduate admission requirements, it is highly recommended that at least a B.A. or B.S. in mathematics or statistics or a closely related field be completed as preparation. Those students who do not qualify for unconditional admission should anticipate that additional undergraduate and/or graduate course work may be required to complete the degrees.

Degree Requirements. Candidates for this degree are required to complete successfully 36 semester hours of credit.

1. All candidates for the Master of Science in Mathematics, regardless of concentration, must complete the following 9 hours of course work.
 - MAT 5203 Theory of Functions of a Real Variable I
 - MAT 5283 Linear Algebra and Matrix Theory I
 - STA 5503 Mathematical Statistics I
2. In addition, a candidate for the Master of Science in Mathematics must complete the required courses for one of the concentrations declared by the candidate.
 - (1.) Concentration in Mathematics required courses: 9 semester hours.
 - MAT 5172 Algebraic Structures
 - MAT 5223 Theory of Functions of a Complex Variable I
 - MAT 5603 Numerical Analysis
 - (2.) Concentration in Statistics required courses: 9 semester hours.
 - STA 5513 Mathematical Statistics II
 - STA 5713 Linear Models I
 - STA 5413 Non-Parametric Statistics
 - (3.) Concentration in Mathematics Education required courses: 9 semester hours.
 - MAT 5023 Problem Solving Seminar
 - MAT 5033 Foundations and Fundamental Concepts of Mathematics
 - MAT 5043 Euclidian and Non-Euclidian Geometry
3. Each student in the Master's program is required either to write a Master's thesis or complete 6 hours of advanced courses in the Division as recommended by the Committee on Graduate Studies and approved by the Division Director and Dean.
4. An additional 12 hours of course work must normally be chosen from eligible graduate courses within the Division of Mathematics, Computer Science and Systems Design. However, upon recommendation of the Committee on Graduate Studies and advance approval by the Division Director and Dean, a maximum of 6 semester hours chosen from courses numbered between 3000 and 4999 within the Division of Mathematics, Computer Science and Systems Design and a maximum of 6 semester hours chosen from other disciplines may be applied toward these 12 hours. Students pursuing the concentration

in Mathematics Education may apply a maximum of 9 semester hours chosen from other disciplines, with prior consent of the Committee on Graduate Studies, the Division Director and the Dean.

All candidates for the degree will be admitted to candidacy by satisfactorily completing a comprehensive examination in Mathematics. This exam must be completed with two years from the date of admission. In addition, a student must have an acceptable Program of Study and must be recommended for Admission to Candidacy by the appropriate Committee on Graduate Studies and Division Director and must be approved for Admission to Candidacy by the Dean. Additional requirements for Admission to Candidacy are set forth in that section of the present catalog.

COURSE DESCRIPTIONS

MATHEMATICS

(MAT)

5003 Modern Mathematics for Teachers

(3-0) 3 hours credit.

A practical orientation concerned with the classroom uses of mathematics for teachers of K-12. May not be applied toward the Master of Science Degree in Mathematics or to the Master of Science Degree in Computer Science and Systems Design.

5023 Problem Solving Seminar

(3-0) 3 hours credit.

Students will have the opportunity to engage in extensive experience and practice in solving mathematical problems. This course can only be applied to majors in Mathematics with a concentration in Mathematics Education.

5033 Foundations and Fundamental Concepts of Mathematics

(3-0) 3 hours credit.

Topics include the study of mathematics in antiquity as an empirical science; the shift from inductive reasoning to axiomatic structures, the development of geometry in the plane and 3-space, the discovery of analysis, the emergence of axiomatic systems and the focus on algebraic structures. This course can only be applied to majors in Mathematics with a concentration in Mathematics Education.

5043 Euclidean and Non-Euclidean Geometry

(3-0) 3 hours credit.

Topics will be selected from advanced euclidean and non-euclidean geometry, solid analytic geometry and differential geometry. This course can only be applied to majors in Mathematics with a concentration in Mathematics Education.

5173 Algebraic Structures

(3-0) 3 hours credit. Prerequisite: MAT 4233 or consent of instructor.

The opportunity for development of basic theory of algebraic structures. Areas of study include finite groups, isomorphism, direct sums, polynomial rings, algebraic numbers, number fields, unique factorization domain, prime ideals and Galois groups.

5203 Theory of Functions of a Real Variable I

(3-0) 3 hours credit. Prerequisite: MAT 4223 or consent of instructor.

Lebesgue measure and integration theory.

5213 Theory of Functions of a Real Variable II

(3-0) 3 hours credit. Prerequisite: MAT 5203.

Further development of Lebesgue measure and integration theory, metric space topology, and elementary Banach space theory.

5223 Theory of Functions of a Complex Variable I

(3-0) 3 hours credit. Prerequisite: MAT 3213 or MAT 4213.

Complex integration. Cauchy's theorem, calculus of residues, power series.

5233 Theory of Functions of a Complex Variable II

(3-0) 3 hours credit. Prerequisite: MAT 5223.

Infinite products, entire functions, Picard's theorem, Riemann mapping theorem, functions of several complex variables.

5243 General Topology I

(3-0) 3 hours credit. Prerequisite: MAT 4273 or consent of instructor.

Topological spaces, metric spaces, continua, plane topology.

5253 General Topology II

(3-0) 3 hours credit. Prerequisite: MAT 5243.

Areas of study include introductory algebraic topology, introduction to topology of manifolds.

5263 Applied Algebra I

(3-0) 3 hours credit. Prerequisite: MAT 4233 or the equivalent.

Areas of study include Boolean algebras, lattice theory and graph theory, finite fields, Lie groups, Lie algebras.

5273 Applied Algebra II

(3-0) 3 hours credit. Prerequisite: MAT 5263 or the equivalent.

Ideas and techniques of modern algebra applied to the area of computer science.

5283 Linear Algebra and Matrix Theory I

(3-0) 3 hours credit. Prerequisite: MAT 2233 or the equivalent.

A study of linear algebraic structures and algebraic properties of matrices.

5313 Abstract Algebraic Structures

(3-0) 3 hours credit. Prerequisite: MAT 4233 or MAT 5173.

Algebraic structures. Areas of study include groups, rings, fields, Galois theory, ideal theory and representations of groups, module theory, homological algebra.

5603 Numerical Analysis

(3-0) 3 hours credit. Prerequisite: MAT 3643 or consent of instructor.

Emphasis on the mathematical analysis of numerical methods. Areas of study include solution of nonlinear equations and function optimization, approximation theory and numerical quadrature.

5653 Differential Equations I

(3-0) 3 hours credit. Prerequisite: MAT 2233.

Solution of initial value ordinary differential equations, first order equations, higher order linear equations, series solutions, Laplace transforms, systems of first order equations, nonlinear differential equations and stability.

5663 Differential Equations II

(3-0) 3 hours credit. Prerequisite: MAT 5653.

Boundary value ordinary differential equations, partial differential equations, Fourier series and other orthogonal function expansions.

5673 Partial Differential Equations I

(3-0) 3 hours credit. Prerequisite: MAT 5663 or MAT 3623 or consent of instructor.

Classical theory of initial value and boundary value problems for partial differential equations.

5683 Partial Differential Equations II

(3-0) 3 hours credit. Prerequisite: MAT 5673.

Modern topics in partial differential equations.

5833 Perturbation Theory in Applied Mathematics

(3-0) 3 hours credit. Prerequisite: MAT 3613 or MAT 5653 or consent of instructor.

Perturbation theory, asymptotic analysis and boundary layer expansions.

5843 Mathematical Modeling of Physical Systems

(3-0) 3 hours credit. Prerequisite: MAT 3613 or MAT 5653 or consent of instructor.

Deterministic mathematical modeling with examples from engineering and the life and physical sciences. Stability considerations.

5853 Mathematical Methods of Continuum Mechanics

(3-0) 3 hours credit. Prerequisite: MAT 3613 or MAT 5653 or consent of instructor.

Basic concepts of elasticity, fluid flow and lubrication theory with applications to physical and biological systems.

5973 Directed Research

3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the Instructor, the student's Graduate Advisor, the Division Director and Dean of the College in which the course is offered.

The directed research course may involve either a laboratory or a theoretical problem. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6603 Optimization Techniques in Operations Research

(3-0) 3 hours credit. Prerequisites: MAT 2213, MAT 2233 or consent of instructor.

Analysis and application of optimization techniques in operations research. Emphasis on linear programming, non-linear programming, integer programming.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate Advisor, the Division Director and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. For students needing specialized work not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

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

6983 Master's Thesis

3 hours credit. Prerequisites: Admission to candidacy and permission of the Graduate Advisor and thesis director.

Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.

COURSE DESCRIPTIONS
STATISTICS
(STA)

5073 Methods of Statistics I

(3-0) 3 hours credit. Prerequisite: Knowledge of algebra. This course cannot be applied to the major in Mathematics, Computer Science, and Systems Design without the recommendation of the Committee on Graduate Studies and approval of the Division Director and Dean.

Emphasis on methods and applications of statistics. Measure of location, variability and association. Interpretation of categorical data. Hypothesis testing. Use of packaged programs. Applications.

5083 Methods of Statistics II

(3-0) 3 hours credit. Prerequisite: STA 5073. This course cannot be applied to the major in Mathematics, Computer Science, and Systems Design without the recommendation of the Committee on Graduate Studies and approval of the Division Director and Dean. A continuation of STA 5073 with emphasis on linear statistical models. Use of packaged programs. Applications.

5103 Applied Statistical Methods

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

Maximum likelihood estimation and its properties, likelihood ratio tests. Procedures in regression and model fitting. Transformations of data. Analysis of variance.

5253 Applied Time Series Analysis

(3-0) 3 hours credit. Prerequisite: STA 5103 or consent of instructor.

Theory and application of discrete time series models. Principles of iterative model building.

Representation of dynamic relations by difference equations. Autoregressive integrated moving average models. Identification, fitting and diagnostic checking for models. Seasonal model application to forecasting in various applied areas.

5313 Theory of Sample Surveys with Applications

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

Basic sampling techniques and their comparisons for finite populations. Topics include: simple random sampling, stratified random sampling, ratio and regression estimates, systematic sampling, cluster sampling, multistage and double sampling.

5413 Non-Parametric Statistics

(3-0) 3 hours credit. Prerequisite: STA 5103 or consent of instructor.

Order statistics, test of goodness of fit, rank-order statistics, linear rank statistics for problems involving location and scale, association in multiple classifications, asymptotic relative efficiency.

5503 Mathematical Statistics I

(3-0) 3 hours credit. Prerequisites: MAT 4213 and STA 3513.

Axioms of probability, random variables and probability distributions, sampling distributions, stochastic convergence.

5513 Mathematical Statistics II

(3-0) 3 hours credit. Prerequisite: STA 5503.

Sufficient statistics, unbiased estimation, likelihood ratio test, sequential probability ratio test, decision theory.

5553 Bayesian Statistics

(3-0) 3 hours credit. Prerequisite: STA 5103 or 5513.

Subjective probability, utility theory, decision theory, prior and conjugate prior distributions, posterior distributions, estimation and tests of hypotheses, linear models, sequential sampling.

5713 Linear Models I

(3-0) 3 hours credit. Prerequisites: STA 5103 and MAT 2233 or equivalents. STA 4723 is strongly recommended but not required.

Generalized inverse of matrix, least squares estimation in fixed models, linear estimable functions and Gauss-Markov theorem, multivariate normal distribution and distribution of quadratic forms, likelihood ratio tests in fixed models, analysis of variance. Applications in full rank models and balanced models.

5723 Linear Models II

(3-0) 3 hours credit. Prerequisite: STA 5713.

Analysis of covariance, unbalanced models, random and mixed models, inference on variance components, use of packaged programs.

5803 Advanced Statistical Quality Control

(3-0) 3 hours credit. Prerequisite: STA 3523 or STA 5503.

Acceptance sampling by attributes and by variables, military standard plans, rectifying inspection: tolerance limits; control chart for fraction defective, number of defects, and variables; cumulative sum control charts, recent advances in control chart and acceptance sampling techniques.

5813 Multivariate Analysis I

(3-0) 3 hours credit. Prerequisites: MAT 2233 and either STA 5103 or consent of instructor.

Multivariate normal distribution, multiple and partial correlation coefficients, estimation of mean vector and covariance matrix, Hotelling's T^2 , classification of observations, Wishart distribution.

5823 Multivariate Analysis II

(3-0) 3 hours credit. Prerequisite: STA 5813.

Multivariate linear hypothesis and analysis of variance, test of independence, tests concerning covariance matrices, principal components, canonical correlation and factor analysis. Application of canned programs.

5853 Analysis of Categorical Data

(3-0) 3 hours credit. Prerequisite: STA 5103 or consent of instructor.

Analysis of multi-factor contingency tables: linear and log-linear models, inference in complete and incomplete tables, model selection and assessing goodness of fit, other methods

of estimation such as information theoretic approach minimum chi-square and logit chi-square, measures of association. Models of discrete data.

5903 Theory of Reliability and Life Testing

(3-0) 3 hours credit. Prerequisite: STA 5503 or consent of instructor.

Probabilistic failure models, estimation and tests of hypotheses regarding these models, distribution free methods, accelerated life testing, system reliability and maintenance policies.

5993 Special Topics in Statistics

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

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. May be repeated for credit when the topics vary, but not more than 6 hours will apply to the Master's degree.

6613 Probabilistic Models in Operations Research

(3-0) 3 hours credit. Prerequisite: STA 3513 or consent of instructor.

Analysis and application of basic probabilistic models in operations research. Queueing theory, inventory theory, Markov decision processes, reliability theory, decision analysis.

6983 Master's Thesis

3 hours credit. Prerequisites: Admission to candidacy and permission of the Graduate Advisor and thesis director.

Thesis research and preparation. May be repeated for credit but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.

MASTER OF SCIENCE DEGREE IN COMPUTER SCIENCE AND SYSTEMS DESIGN

The graduate program in Computer Science and Systems Design offers integrated studies involving software, hardware and mathematics leading to the M.S. degree. A thesis option is available for those students who wish to obtain some expertise in research.

Special Admission Requirements. In addition to satisfying the university-wide graduate admission requirements, a B.A. or B.S. in computer science, equivalent to that offered by UTSA, is required as preparation. Those students who do not qualify for unconditional admission may be admitted on a conditional basis. Students who are admitted on a conditional basis may be required to complete specific undergraduate courses as conditions of admission. If such courses are listed as deficiencies, they will not count toward the graduate degree. In such cases, students should anticipate that additional time will be required to complete the degree.

Degree Requirements. Candidates for this degree are required to successfully complete 36 semester hours of graduate course work subject to the following conditions:

1. Twenty-one (21) hours of eligible graduate courses within the Division of Mathematics, Computer Science and Systems Design of which 15 hours must be courses in Computer Science and Systems Design and must include the following three courses:

CS 5513 Modern Computer Architecture
CS 5303 Structure of Programming Languages
CS 5443 Information Retrieval Systems

2. Nine (9) hours of eligible graduate courses within the Division of Mathematics, Computer Science and Systems Design subject to the following restrictions:

With the prior recommendation of the Committee on Graduate Studies and prior approval of the Division Director and the Dean of the College, a student may apply a maximum of 6 hours of upper-division undergraduate courses (courses numbered between 3000 and 4999) in the Division of Mathematics, Computer Science and Systems Design to the M.S. degree and may apply a maximum of 6 hours of courses from other disciplines to the M.S. degree.

3. Each student in the Master's program is required either to write a Master's thesis and enroll in 6 hours of course work in CS 6983 or CSD 6983, or complete 6 hours of additional graduate course work as recommended by the Committee on Graduate Studies and approved by the Division Director and the Dean of the College. Completion of the Master's thesis requires a successful oral defense.

All candidates for the degree may be admitted to candidacy by satisfactorily completing the basic comprehensive examination in computer science. This examination must be completed within two years from the date of admission. In addition, a student must have submitted an approved Program of Study, meet all requirements as set forth by the University as specified in the appropriate sections of the current catalog, and must be recommended by the Committee on Graduate Studies and be approved for Admission to Candidacy by the Division Director and Dean of the College.

COURSE DESCRIPTIONS

COMPUTER SCIENCE

(CS)

5003 Computers Literacy for Educators

(3-0) 3 hours credit.

This course is designed for educators who need a basic course in computers so that intelligent decisions may be made concerning the issues of computers in the classroom. Students will have the opportunity to learn the vocabulary, the workings and capabilities of the computer and programming in the BASIC language. May not be applied toward the Master of Science Degree in Mathematics or to the Master of Science Degree in Computer Science and Systems Design.

5013 Pascal for Educators

(3-0) 3 hours credit.

This course will introduce the student to structured programming using Pascal. The topics include procedures, functions, arrays, records, stacks, linked lists, queues, trees, and graphs. This course will help assist high school teachers in preparing their students for the Advanced Placement Exam in Computer Science. This course can only be applied to majors in Mathematics with a concentration in Mathematics Education.

5023 Computers for Mathematics Teachers

(3-0) 3 hours credit.

A course for mathematics teachers on integrating the computer into the mathematics curriculum with an algorithmic-oriented introduction to computer programming in BASIC. This course can only be applied to majors in Mathematics with a concentration in Mathematics Education.

5033 Basic Concepts of Computer Science I

(3-0) 3 hours credit. Prerequisite: Knowledge of some programming language.

Designed for students who have not taken CS 1711 and 1713 or CS 1714 and CS 1723 or their equivalents.

The opportunity for intensive study of fundamental concepts of computers, algorithm design, programming and data structures. May not be applied toward the Master of Science Degree in Mathematics or to the Master of Science Degree in Computer Science and Systems Design.

5043 Basic Concepts of Computer Science II

(3-0) 3 hours credit. Prerequisite: CS 5033.

Intensive study of computer organization, file organization, and advanced data structures. May not be applied toward the Master of Science Degree in Mathematics or to the Master of Science Degree in Computer Science and Systems Design.

5103 Software Design Methodology

(3-0) 3 hours credit. Prerequisites: CS 2733 and CS 2743.

Discussion of issues relevant to the development of large software systems, such as: specification, design and synthesis of reliable software, proof of correctness, self-checking software, reconfiguration, recovery, fault-tolerant systems, system reliability modeling.

5113 Computer Graphics

(3-0) 3 hours credit. Prerequisite: CS 4383.

The course emphasizes generative computer graphics, interactive construction of graphic objects, data base design, composite object construction, and hidden-surface algorithmic techniques. Specifically, the emphasis is on vector graphic devices and on the production of high-resolution images.

5133 Software Testing

(3-0) 3 hours credit. Prerequisites: CS 3233 and CS 5103.

The course considers the various aspects of software testing: test tools, high order testing, debugging, code inspections, passive testing, test plan development, test procedures, documentation, economic issues and management factors.

5143 Software Configuration Management

(3-0) 3 hours credit. Prerequisite: CS 5103.

The course considers the aspects of managing the configuration of software during its

lifecycle. Topics include: identification, control, auditing, and status accounting. Simulation of a configuration control board process.

5233 Artificial Intelligence

(3-0) 3 hours credit. Prerequisites: CS 2743, CS 3233, and knowledge of LISP.

This course is a study of topics in Artificial Intelligence such as state space, backtracking, heuristic search, game playing, automatic theorem proving, pattern recognition, automatic programming, and robotics.

5243 Cognitive Science

(3-0) 3 hours credit. Prerequisite: CS 5233.

This course is a study of topics in Cognitive Science, such as, machine learning, concepts formation, representing knowledge, natural language understanding.

5303 Structure of Programming Languages

(3-0) 3 hours credit. Prerequisite: CS 3723.

Study of the features of a variety of current programming languages including list processing language, with special consideration to implementation of these languages.

5353 Formal Languages, Automata and Theory of Computation

(3-0) 3 hours credit. Prerequisites: CS 2743 and CS 3233.

Formal models of computation and syntax.

5443 Information Retrieval Systems

(3-0) 3 hours credit. Prerequisites: CS 3233 and CS 3743.

Design and implementation of techniques for information retrieval in data base management systems.

5453 Advanced Topics in Data Base Design

(3-0) 3 hours credit. Prerequisite: CS 5443.

Consideration of special problems such as: integrity and security; restructuring adaptive data structures; recovery and restart; distributed data bases; data base hardware architecture; intelligent front-ends.

5513 Modern Computer Architecture

(3-0) 3 hours credit. Prerequisite: CS 4753.

Study of modern computer architecture, including parallel computers, multiprocessors, pipelines, and fault tolerance.

5523 Operating Systems

(3-0) 3 hours credit. Prerequisite: CS 5513.

Operating systems concepts with emphasis on concurrency, abstraction, security and reliability. Distributed operating systems and network control will be discussed.

5533 Advanced Topics in Computer Systems

(3-0) 3 hours credit. Prerequisite: CS 5523.

Areas of study include advanced architectures, interconnected systems, distributed computer systems, computer networks, and computer communications.

5553 Performance Evaluation and Measurement of Information and Computing Systems

(3-0) 3 hours credit. Prerequisite: CS 4753.

Study of the major purposes for evaluating and measuring the hardware and software performance of computing systems, including selection, evaluation, performance projection and performance monitoring. Examination of techniques for performance evaluation and projection including benchmarks, traces, synthetics workloads, analytic modeling and simulation.

5973 Directed Research

(3-0) 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the Instructor, the student's Graduate Advisor, the Division Director and Dean of the College in which the course is offered.

The directed research course may involve either a laboratory or a theoretical problem. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6633 Simulation Techniques

(3-0) 3 hours credit. Prerequisites: CS 1723 and STA 3523, or consent of instructor.

Techniques in simulation on a digital computer. Generation of random numbers from a

distribution, Monte Carlo techniques, use of simulation languages. Development of simulation models for specific problems.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate Advisor, the Division Director and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. For students needing specialized work not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: consent of instructor.

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

6983 Master's Thesis

3 hours credit. Prerequisites: Admission to candidacy and permission of the Graduate Advisor and thesis director.

Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.

**COURSE DESCRIPTIONS
SYSTEMS DESIGN
(SD)**

5203 Mathematical Methods for Systems Design

(2-2) 3 hours credit. Prerequisite: MAT 2213.

The mathematical aspects and applications of digital signal processing. Discrete-time signals and systems. The z-transform. The discrete Fourier transform. Flow graph and matrix representation of digital filters. Digital filter design techniques. Computation of the discrete Fourier transform. The discrete Hilbert transform.

5703 Microprogramming I

(3-0) 3 hours credit. Prerequisite: CS 4753.

Introduction to microprogramming concepts. Architectural characteristics of microprogrammed computers. Microprogramming languages and support software. Computers with vertical, diagonal and horizontal microinstruction formats. Developments in microprogramming languages. Applications of microprogramming. Design of microprograms implemented in Writable Control Store.

5723 Microcomputer Systems I

(2-2) 3 hours credit. Prerequisite: SD 3813.

An in-depth study of microcomputers and related LSI devices, to include selected major commercially available devices. A review of data formats, digital devices and integrated circuits. Microcomputer architectures. Microcomputer programming. Input/output programming. System bus and I/O control logic. Input/output interfaces. Memory subsystems. Development tools and languages. Single-chip 16-bit microprocessors. Bit-sliced microprocessors.

5743 Input-Output Subsystems.

(2-2) 3 hours credit. Prerequisites: SD 3813 and SD 4853.

An in-depth study of the organization and design of input-output controllers such as for discs, printers, teleprocessing, process control and for other special purpose applications. Theoretical topics related to input/output subsystems. Minicomputer and microcomputer input/output methods. Interface components and their characteristics. Designing interface circuits. Interfacing to standard buses and peripherals. Interface layout and construction. Interface software design and implementation.

138 / Systems Design

5773 Computer Architecture in VLSI Design

(3-0) 3 hours credit. Prerequisite: CS 4753.

Introduction to computer architecture as related to VLSI design data and control flow in systematic structures, and implementation of integrated system design.

5783 Real Time Digital Control

(3-0) 3 hours credit. Prerequisite: SD 5203.

Topics in control and sampling. Data acquisition and modeling of control systems.

5973 Directed Research

(3-0) 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the Instructor, the student's Graduate Advisor, the Division Director and Dean of the College in which the course is offered.

The directed research course may involve either a laboratory or a theoretical problem. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate Advisor, the Division Director and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. For students needing specialized work not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: consent of instructor.

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

6983 Master's Thesis

3 hours credit. Prerequisites: Admission to candidacy and permission of the Graduate Advisor and thesis director.

Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.

COLLEGE OF SOCIAL AND BEHAVIORAL SCIENCES

DIVISION OF BEHAVIORAL AND CULTURAL SCIENCES

MASTER OF ARTS DEGREE IN ANTHROPOLOGY

Degree. The Master's program in Anthropology at The University of Texas at San Antonio is designed to offer students the opportunity to study anthropology at the graduate level. Two specializations are available:

- a. *Ethnohistory.* Ethnohistory applies the concepts of cultural anthropology to historical documents. Cultural process through time is examined using historical archives as the principal information source. The program at UTSA supplements a foundation in cultural anthropology and ethnohistory with appropriate studies in archaeology, history, and historiography.
- b. *Archaeology.* UTSA's program in Archaeology places particular emphasis on the Texas and Borderlands area, and affords an opportunity to conduct systematic research using the abundant archaeological resources in the San Antonio and South Texas region. The archaeology of Mexico and Central America is also emphasized.

Special Admission Requirements. In addition to satisfying The University graduate admission requirements, each applicant must provide three letters of recommendation from persons who can evaluate the applicant's academic background, skills, motivation, and potential. These letters should be directed to the Graduate Advisor of Record, Division of Behavioral and Cultural Sciences, and should arrive as soon as possible after submitting the application for admission. Applicants who are able to visit the UTSA campus are encouraged to meet with the Division's Graduate Advisor of Record and members of the Anthropology faculty in conjunction with the application.

Degree Requirements. In addition to the general requirements for graduate study at The University of Texas at San Antonio, the Master of Arts in Anthropology degree requires the following:

Option I. 33 credit hours including 27 credit hours of coursework and the Master's thesis for which 6 hours of credit are granted. At least 18 of these hours must derive from Anthropology courses.

Option II. A Master's degree program without a thesis, containing 36 hours of coursework may be sought by petition to the Anthropology Graduate Studies Committee. *Permission to take Option II will normally be granted only on presentation of evidence that the student has previously done scholarly work equivalent to that required in a M.A. thesis.*

The Program of Study for either specialization is not rigidly specified, and within each specialization there is some room for individual variation. Student programs are constructed on the basis of consultation between students and faculty advisors within Division guidelines designed to guarantee coherence to the student's achievement in the area selected. Lists of suggested courses are available from faculty advisors and from the Division's Graduate Advisor of Record.

All candidates for the degree must be admitted to candidacy, normally at the end of one semester of full-time study or upon completion of 12 semester hours of graduate work. To be admitted to candidacy a student must have an acceptable Program of Study and must be recommended for Admission to Candidacy by the appropriate Committee on Graduate Studies and Division Director and must be approved for Admission to Candidacy by the Dean of the College of Social and Behavioral Sciences. Additional requirements for Admission to Candidacy are set forth in that section of the present catalog.

Although there is no program-wide language proficiency requirement, certain specializations and programs of study will require students to demonstrate proficiency in a second language. Students should consult their advisor or the Graduate Advisor of Record regarding this matter.

A comprehensive examination, both written and oral, tailored to the student's program and area of concentration, is scheduled for the final semester before writing the Master's thesis for Option I students, or before enrolling in the last nine semester hours of coursework under the non-thesis option. Satisfactory performance on the comprehensive examination is required prior to enrollment in either ANT 6983 (Master's thesis) or in the non-thesis option work.

COURSE DESCRIPTIONS

ANTHROPOLOGY

(ANT)

5013 History and Theory of Cultural Anthropology

(3-0) 3 hours credit.

A survey of the problems which are central to the anthropological study of culture, with attention to evolutionary, historical and functional points of view.

5023 History and Theory of Archaeology

(3-0) 3 hours credit.

A survey of the history and development of archaeology; research techniques; method and theory of prehistoric research.

5133 Regional Native Cultures of North America

(3-0) 3 hours credit.

A survey of native cultures ranging from the Arctic to the Woodlands of Eastern North America, and the Greater Southwest. The rise of regional variation, the role of native religious movements, the influence of natural environment, and continuities into the historical present are considered.

5233 Concepts of Ethnohistory

(3-0) 3 hours credit.

Survey and practicum in methods and objectives of documentary historical research in anthropology.

5243 Environment and Culture Change

(3-0) 3 hours credit.

An examination of mechanisms of geologic, atmospheric, and cultural change. Methods of studying long-term interactions and change.

5253 Ethnohistory of Eastern North America

(3-0) 3 hours credit. Prerequisite: ANT 5233.

An examination of the major interpretive works, and the sources on which they are based.

5263 Mesoamerican Ethnohistory

(3-0) 3 hours credit. Prerequisite: ANT 5233.

An examination of the sources and major interpretive works dealing with the various indigenous populations, their preconquest culture, and post-conquest cultural experience.

5413 Seminar in the Prehistory of Texas and Adjacent Areas

(3-0) 3 hours credit.

Intensive study of prehistoric and early historic aboriginal cultures of Texas and adjacent areas. Focus is on problems of interpretation, current archaeological research of the region, and the impact of Federal legislation on Texas archaeology.

5433 Archaeological Backgrounds of the Middle East, the Mediterranean and Europe

(3-0) 3 hours credit.

Examination of the major events of prehistory in the area, the establishment of agricultural life, the development of urbanism, and the interaction of the various zones of the area in the evolution of civilization.

MASTER OF ARTS DEGREE IN HISTORY

Degree. The Master of Arts degree program in History offers students the opportunity to study history and the historian's craft. The program is designed to serve the needs of the individual students as well as the educational and intellectual interests of San Antonio and south Texas.

The program has two objectives: first, to give students an understanding of the discipline, and second, to involve them in the process of historical research and writing. Hence, students will become acquainted with the work of historians and will approach their study of local and national societies from the viewpoint of a professional historian.

Each student must select a general field of emphasis (United States or European history) and a specific field. Among the latter are presently included American social history, European expansion, Latin American history, and the Borderlands. Alternative specific fields may be arranged with the concurrence of the Graduate Studies Committee in History. The choice of a readings course and a proseminar-seminar sequence (see Degree Requirements, below) will be governed by the student's choice of fields. The written comprehensive examination will cover both the specific and the general fields.

The History program offers both a thesis and a non-thesis option. The decision whether to complete a Master's thesis is important and requires concurrence of student, advisor, and Graduate Advisor of Record.

Degree Requirements. The minimum number of semester hours required for this degree, exclusive of coursework or other study required to remove admission deficiencies, is 30.

All candidates for the degree must complete:

A. 3 semester hours chosen from general field readings courses:

HIS 5073 Readings in American History

or

HIS 5083 Readings in Modern European History

B. 15 semester hours of elective courses, chosen in consultation with the student's advisor. Some of these courses will normally be selected in preparation for the student's specific field on the comprehensive examination. Up to 6 of the elective hours may be taken in disciplines outside history with the prior approval of the student's advisor and the Dean of the College. Such outside courses must clearly support the student's program of study.

C. 6 semester hours consisting of the sequence:

HIS 6813 Proseminar in History

HIS 6903 Research Seminar in History

This sequence will vary in subject. A student should first take HIS 6813 and then HIS 6903 *in the same subject*. The proseminal-seminar sequence will define the major part of the material to be covered in the specific field section of the student's comprehensive examination.

D. 6 semester hours to be taken as follows:

Option I (with thesis)

The satisfactory completion of HIS 6983 (Master's Thesis) (6 hours) in accordance with university regulations as stated under "Options for Master's Degrees."

Option II (without thesis)

Another sequence of HIS 6813 and HIS 6903 in addition to the one required under (C) above, on a single subject different from the one pursued under (C).

In addition to the semester-hour requirements set forth above, all candidates for the degree are required to pass a written comprehensive examination covering the stu-

dent's general and specific fields. The comprehensive examination will be based on a syllabus with which each student will be provided shortly after the naming of the student's examination committee. The comprehensive examination is taken in or after the semester in which the student completes the requirements in Section A, B, and C above; it must be passed before the student can enroll in HIS 6983 (Master's Thesis) under Option I or receive his or her degree under Option II.

All candidates for the degree must be admitted to candidacy, normally at the end of one semester of full-time study or upon completion of 12 semester hours of graduate work. To be admitted to candidacy a student must have an acceptable Program of Study and must be recommended for Admission to Candidacy by the appropriate Committee on Graduate Studies and Division Director and must be approved for Admission to Candidacy by the Dean of the College of Social and Behavioral Sciences. Additional requirements for Admission to Candidacy are set forth in that section of the present catalog.

Competence in either a foreign language or a technical research methodology is required of all students. The student, with the approval of the Graduate Studies Committee in History, will declare the language or technical research competency to be demonstrated at the time of application for candidacy. The requirement must be fulfilled before a student in Option I enrolls in HIS 6983 (Master's Thesis) and by the time a student in Option II applies for graduation. Normally, the language competence option will be selected by students whose areas of research concentration are deemed by the Graduate Studies Committee to require knowledge of a foreign language. Language competence is demonstrated by passing a one-hour translation examination which requires a knowledge of the language sufficient to read and understand a contemporary historical monograph in the language. Technical research competence is demonstrated by passing HIS 6603 (Technical Methods) and by passing or having passed at least three semester hours of coursework in statistics or a closely related field. The exact nature of the technical research requirement will be determined at the time of application for candidacy by the Graduate Studies Committee in History.

COURSE DESCRIPTIONS

HISTORY (HIS)

5073 Readings in American History

(3-0) 3 hours credit.

Overview of important historiographical issues in American history, intended to acquaint the student with current directions in research and interpretation. To be taken by students preparing for the general American history portion of the M.A. comprehensive examination.

5083 Readings in Modern European History

(3-0) 3 hours credit.

Overview of important historiographical issues in European history since the seventeenth century, intended to acquaint the student with current directions in research and interpretation. To be taken by students preparing for the general European history portion of the M.A. comprehensive examination.

5123 The American Revolution, 1763-1789

(3-0) 3 hours credit.

A history of British America from the imperial crisis of 1763 to the ratification of the United States Constitution in 1789, with emphasis on the early beginnings of the American nation, and social, economic, military, and cultural features of the revolutionary movement.

5133 A New American Nation, 1789-1850

(3-0) 3 hours credit.

An examination of the impact of economic, political, and cultural changes on the development of American society before the Civil War.

5183 The Rise of American Industrial Society, 1877-1929

(3-0) 3 hours credit.

The political, economic, cultural, and social evolution of industrial society in the United States from 1877 to 1929, focusing on reactions to the growth of big business and organized labor and their impact on urbanization. Significant developments include the emergence of the United States as an industrial power, the Populist Revolt, neoimperialism, the Progressive Era, and the Great Depression.

5193 The Emergence of Modern America, 1929 to the Present

(3-0) 3 hours credit.

Analysis of recent American history with emphasis upon the rise of the United States as a world power, the Great Depression, FDR and the New Deal, World War II, the Cold War, and an assessment of the administrations of recent presidents.

5263 The Spanish Borderlands, 1521-1821

(3-0) 3 hours credit.

A comprehensive study of Spanish exploration and colonization in the borderlands adjacent to the international boundary between the Southwestern United States and Mexico. Emphasis on Hispanic institutions and cultural values which shaped the development of a frontier society on the eve of Mexican independence. Attention is given to bibliographic sources and specialized readings.

5273 The Mexican Borderlands Since 1821

(3-0) 3 hours credit. Prerequisite: HIS 5263 recommended.

A comparative description and analysis of the historical development of Texas, New Mexico, Arizona, and California in the nineteenth and twentieth centuries.

5293 The American West

(3-0) 3 hours credit.

A regional history of the exploration, acquisition, settlement and development of the territory west of the Appalachian mountains in the nineteenth and twentieth centuries, with emphasis on the influences of the frontier and subsequent patterns of development on American society.

5303 Twentieth-Century Texas

(3-0) 3 hours credit.

An examination of Texas society, culture, and politics in modern times. Topics may include the period of reform in the 1890s, the boom in oil, the growth of cities, the politics of the Progressive Era, the developments of the Twenties, the Depression and New Deal, World War II, the era of Lyndon Baines Johnson, and the expansion of industry in the state and the Sun Belt.

5423 Colonial Mexico

(3-0) 3 hours credit.

A detailed examination of the Spanish conquest and colonization of Mexico from 1521 to Independence. Special attention will be paid to the transformation of Indian society under Spanish rule, the development of the colonial economy, and the formation of an interrelated colonial elite. (Formerly HIS 5403; credit cannot be earned for both 5403 and 5423.)

5433 Republican Mexico

(3-0) 3 hours credit.

This course will examine the history of Mexico following Independence from Spain in 1821. Careful consideration will be given to the disintegration of the colonial system, the nineteenth century reforms, the Porfiriato, and Mexican Revolution. Students may have the opportunity to work in UTSA's special collections on nineteenth-century Mexico. (Formerly HIS 5413; credit cannot be earned for both 5413 and 5433.)

5463 Latin American Society

(3-0) 3 hours credit.

An analysis of the formation of Latin American Society in the colonial and national periods. The course will focus on institutions such as the Church, the family, and the military, as well as the role of Indians, Blacks, women, and ethnic groups. Readings will be drawn from different regions and time periods to provide a comparative perspective.

5473 Brazilian Culture and Society

(3-0) 3 hours credit.

Brazil from 1500 to the present. This course will trace the contours of Brazilian culture in the colonial and independent periods. Special attention will be given to the cultural contributions of the major ethnic groups of Brazil — Indians, Blacks, and Portuguese — as well as to forms of cultural expression such as family life, religion, music, and folklore.

5563 The Age of Exploration: Fifteenth Through Seventeenth Centuries

(3-0) 3 hours credit.

An analysis of European discovery, exploration, economic expansion, and initial colonization in Asia, Africa, and America, with special attention to the operation of European imperial systems in the seventeenth century and the impact of the European presence on indigenous societies.

5573 The Age of Imperialism: Eighteenth Through Twentieth Centuries

(3-0) 3 hours credit.

Imperial rivalries, industrialization and imperialism, late nineteenth century imperialism, indigenous reactions, decolonization, and national liberation movements.

5703 The *ancien régime*

(3-0) 3 hours credit.

An examination of the origins and development of the political systems of the major Western European states in the seventeenth and eighteenth centuries. The relationships among political change, the social order, economic structure, and culture.

5713 European Revolutions

(3-0) 3 hours credit.

A comparative investigation of revolutions in modern European history, including the French Revolution, the revolutions of 1848, and the Russian Revolution.

5723 The Origins of the World Wars

(3-0) 3 hours credit.

An examination of the complex processes leading up to the outbreak of world war in 1914 and 1939. Focuses both on international politics and the internal politics of the major warring nations.

6113 Law and Society in America

(3-0) 3 hours credit.

An examination of the role of law as both a reflection and initiator of change in American life, from colonial times to the present. Subjects will range from seventeenth century slavery to the equal rights revolution of the twentieth century.

6143 American Social History

(3-0) 3 hours credit.

Review of important topics in American social history. Topics may include: wealth and power, social stratification, migration, religion and ethnicity, family, gender roles, professionalization, politics as power, urban development, education, and social conflict.

6153 Community History

(3-0) 3 hours credit.

Using San Antonio as a case study, this course will examine the impact of social, political, and economic changes in the United States on the cultural and physical contexts of the city.

6203 War and Society: Europe

(3-0) 3 hours credit.

An example of the impact of war on the development of European society since the Middle Ages. The emphasis will be on the ways nationalism, the rise of the military as a profession, changes in strategic planning, and actual combat affected European society.

6213 War and Society: United States

(3-0) 3 hours credit.

An examination of the impact of war on the development of American society. The emphasis will be on the ways American attitudes toward the military and toward warfare affected national development and on ways the emergence of a professional military and a standing army influenced American society.

6303 Seminar in American History for Teachers

(3-0) 3 hours credit.

Explores implications of new content areas and approaches in American history for social studies teachers and community-resources people. Specific programs individually-tailored to meet student needs. May be repeated for credit when topics vary.

6613 Technical Methods

(3-0) 3 hours credit.

Introduction to quantitative analysis of historical sources. Students will gain experience in research design, data collection, and data manipulation for use in both computer and non-computer projects. Prior experience or coursework in statistics is recommended.

6813 Proseminar in History

(3-0) 3 hours credit.

A detailed investigation of a major historical subject, with particular attention to current research and major interpretations. Intended as preparation for the specific field portion of the M.A. comprehensive examination and for HIS 6903. May be repeated for credit when topics vary.

6903 Research Seminar in History

(3-0) 3 hours credit. Prerequisite: HIS 6813 in the specific subject of the seminar or consent of instructor.

An examination of research materials pertinent to various topics in history, of methodologies developed to interpret these materials, and of theoretical issues guiding inquiry. Preparation of a research paper required. May be repeated for credit when topics vary.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate 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 not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

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

6983 Master's Thesis

3 hours credit. Prerequisites: Admission to candidacy and permission of the Graduate Advisor and thesis director.

Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.

DIVISION OF BICULTURAL-BILINGUAL STUDIES

MASTER OF ARTS DEGREE IN BICULTURAL-BILINGUAL STUDIES

The Master of Arts Degree in Bicultural-Bilingual Studies is designed to respond to a variety of societal needs through advanced multidisciplinary study in the fields of language, culture and related disciplines. It has concentrations in:

Bicultural-Bilingual Teacher Education

Bicultural Studies

English as a Second Language

Degree Requirements. All candidates for the Master of Arts Degree in Bicultural-Bilingual Studies are required to complete successfully a thirty-six (36) semester hour program. Upon completion of coursework, the candidate will be required to pass a written and oral comprehensive examination. In addition, as a requirement for graduation, candidates for this degree must show proficiency in a foreign language or give evidence of foreign language learning experiences acceptable to the Division. Candidates are advised to consult with the Division for testing procedures on foreign language proficiency or acceptable evidence of foreign language learning experiences.

Concentration in Bicultural-Bilingual Teacher Education. This program of study offers the student the opportunity for advanced teacher preparation designed for baccalaureate degree holders in Early Childhood, Elementary, and Secondary Education, directed toward competence in the disciplines needed for effective instruction in bilingual and bicultural education programs. The M.A. degree is offered under two options: thesis and non-thesis.

Degree requirements.

A. 30 hours of coursework from six major areas as follows:

Socio-Cultural Studies (six required hours)

BBL 5003	Foundations for Bicultural Studies
BBL 5013	Multicultural Groups in the United States
BBL 5023	Cultural Adaptation in Bilingual Societies
BBL 5073	Psychological Considerations in Bicultural-Bilingual Environments
BBL 5123	Sociolinguistic Approaches to Bilingual Education
BBL 5133	Hispanic Biculturalism in the United States

Bilingual Education Theory (three required hours)

BBL 5113	Prototypes of Bicultural-Bilingual Education Programs
BBL 5163	Philosophy of Bilingual Education

Linguistics and Second Language Studies (three required hours)

ESL 5003	Linguistics for Second Language and Bilingual Specialists
ESL 5013	Psycholinguistic Foundations of Second Language Teaching/Learning

Teaching Methodology: Content and Language (six required hours)

BBL 5033	Techniques of Teaching Content in Bilingual Programs
BBL 5063	Teaching Reading in Bicultural-Bilingual Programs
BBL 5103	Materials for Teaching Content in Bicultural-Bilingual Programs
BBL 5143	Communication in Bilingual Classrooms

Research, Development and Evaluation (six required hours)

BBL 5053	Tests and Measurements in Bilingual and Second Language Studies
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BBL	6053	Testing Members of Bicultural-Bilingual Societies
BBL	6063	Research Methodology in Bilingual and Second Language Studies
BBL	6073	Ethnographic Research Methods in Bicultural-Bilingual Studies
BBL	6153	Evaluating Bilingual and Second Language Programs

English as a Second Language (six required hours)

ESL	5053	Second Language Teaching Methods
ESL	5063	Second Language Teaching Techniques
ESL	6073	Language Teaching Materials

B. Option I. Six hours of Master's Thesis.

Option II. Six semester hours of coursework in Bicultural-Bilingual Studies, English as a Second Language, or a related area.

Concentration in Bicultural Studies. This program of study offers the student the opportunity to gain a multidisciplinary approach to the study of socio-cultural dynamics in multicultural societies, with emphasis on the study of biculturalism in the United States. Courses are designed for professional and research interests in education, government, social welfare, other social service areas, and community college instruction. Courses may be complementary to academic programs such as in the humanities, social sciences, and business. The M.A. degree is offered under two options: thesis and non-thesis.

Degree requirements.

A. 30 hours of coursework from *four* major areas as follows:

Socio-Cultural Foundations (twelve required hours)

BBL	5003	Foundations for Bicultural Studies
BBL	5013	Multicultural Groups in the United States
BBL	5133	Hispanic Biculturalism in the United States
BBL	5023	Cultural Adaptation in Bilingual Societies
or		
BBL	5073	Psychological Considerations in Bicultural-Bilingual Environments

Historical Foundations (six required hours)

HIS	5263	The Spanish Borderlands, 1521-1821
HIS	5273	The Mexican Borderlands Since 1821
HIS	5293	The American West
HIS	5423	Colonial Mexico
HIS	5433	Republic of Mexico
HIS	5463	Latin American History

Language and Expressive Culture (six required hours)

AHC	5813	Topics in Art History
AHC	6813	Practicum in Art History and Criticism
BBL	6033	Topics in Bicultural Studies
SPN	5453	Hispanic Cultural Periods and Traditions
SPN	5483	Studies in Hispanic Culture
SPN	5803	Mexican-American Literature

Research Foundations (six required hours)

BBL	6073	Ethnographic Research Methods in Bicultural-Bilingual Studies
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BBL 6053 Testing Members of Bicultural-Bilingual Societies
or
BBL 6063 Research Methodology in Bilingual and Second Language Studies
or
BBL 6153 Evaluating Bilingual and Second Language Programs

B. Option I. Six hours of Master's Thesis.

Option II. Six semester hours of coursework in Bicultural-Bilingual Studies, English as a Second Language, or a related area.

Concentration in English as a Second Language.

This program of study is designed for those who are concerned with teaching English as a second language (TESL) or a foreign language (TEFL). This multidisciplinary program presents systematic instruction in applied linguistics and ESL approaches, methods and techniques. The M.A. degree is offered under two options: thesis and non-thesis.

Degree requirements.

A. 30 hours of coursework from *five* major areas as follows:

Theory of Language and Language Acquisition (six to nine required hours)

ESL 5003 Linguistics for Second Language and Bilingual Specialists
ESL 5013 Psycholinguistic Foundations of Second Language
Teaching/Learning
ESL 5023 Language Analysis for Second Language Specialists

Methods and Materials (nine to twelve required hours)

ESL 5053 Second Language Teaching Methods
ESL 5063 Second Language Teaching Techniques
ESL 6073 Language Teaching Materials
ESL 5033 Reading Acquisition and Techniques
OR
ESL 6063 Controlled Composition and Writing in Second Language
Programs

Program Research, Design, and Evaluation (three required hours)

BBL 5053 Tests and Measurements in Bilingual and Second
Language Studies
BBL 6053 Testing Members of Bicultural-Bilingual Societies
BBL 6063 Research Methodology in Bilingual and Second Language
Studies
BBL 6073 Ethnographic Research Methods in Bicultural-Bilingual
Studies
BBL 6153 Evaluating Bilingual and Second Language Programs

Socio-Cultural Studies (six required hours)

BBL 5003 Foundations for Bicultural Studies
BBL 5013 Multicultural Groups in the United States
BBL 5023 Cultural Adaptation in Bilingual Societies
BBL 5073 Psychological Considerations in Bicultural-Bilingual En-
vironments
BBL 5123 Sociolinguistic Approaches to Bilingual Education
BBL 5133 Hispanic Biculturalism in the United States

Language Assessment (three to six required hours)

ESL 6013 Error and Discourse Analysis
ESL 6053 Seminar in Second Language Test Construction

B. Option I. Six hours of Master's Thesis.

Option II. Six semester hours of coursework in Bicultural-Bilingual Studies, English as a Second Language, or a related area.

COURSE DESCRIPTIONS

BICULTURAL-BILINGUAL STUDIES

(BBL)

5003 Foundations for Bicultural Studies

(3-0) 3 hours credit.

A study of basic concepts and principles for a multidisciplinary approach to biculturalism and multiculturalism.

5013 Multicultural Groups in the United States

(3-0) 3 hours credit.

A study of sociocultural diversity, culture maintenance and change, culture revitalization, and other aspects of ethnicity in the past, present, and future of the United States.

5023 Cultural Adaptation in Bilingual Societies

(3-0) 3 hours credit.

A study of the dynamic relationships between culture and language, with emphasis on various adaptations to the American value system.

5033 Techniques of Teaching Content in Bilingual Programs

(3-0) 3 hours credit.

A study of techniques, methods, and approaches applicable to the teaching of subject area content in bicultural-bilingual programs, with attention to the foundations and the methodology relative to such programs. May be offered in Spanish.

5053 Tests and Measurements in Bilingual and Second Language Studies

(3-0) 3 hours credit.

A study of language assessment instruments; emphasis on their background, application, and interpretation for assessing language aptitude, dominance, and proficiency, in accord with instructional objectives.

5063 Teaching Reading in Bicultural-Bilingual Programs

(3-0) 3 hours credit.

A study of the methods and techniques for teaching reading in two languages, with emphasis on the cultural concepts, patterns and regional contributions found in selected reading materials.

5073 Psychological Considerations in Bicultural-Bilingual Environments

(3-0) 3 hours credit.

A study of the social and cognitive psychological factors affecting populations in bicultural-bilingual environments.

5113 Prototypes of Bicultural-Bilingual Education Programs

(3-0) 3 hours credit.

A study and analysis of prototypes of bicultural-bilingual programs; emphasis on program selection, adaptation to community needs, and implementation.

5123 Sociolinguistic Approaches to Bilingual Education

(3-0) 3 hours credit.

A study of the demographic, ethnographic, and socio-cultural elements of bicultural, multicultural communities and the roles of these elements in the adaptation and implementation of elementary and secondary school programs based upon the sociological reality of a culturally diverse community.

5133 Hispanic Biculturalism in the United States

(3-0) 3 hours credit.

A study of twentieth century Mexican-American, Cuban, and Puerto Rican ethnic self-determination patterns in the context of mainstream cultural diversity and change.

5143 Communication in Bilingual Classrooms

(3-0) 3 hours credit.

Emphasis on specialized teaching-related vocabularies and communicative skills needed to conduct a bilingual classroom. Offered in Spanish.

5163 Philosophy of Bilingual Education

(3-0) 3 hours credit.

An historical survey and philosophical study of bicultural-bilingual education.

5193 Comparative Children's Literature in Bilingual Programs

(3-0) 3 hours credit.

A study of the development of children's literature through a comparative, pluri-cultural analysis of the visual images depicted in books for children from many countries, for use in bilingual programs, including a study of their contents and illustrations.

6033 Topics in Bicultural Studies

(3-0) 3 hours credit.

Suggested topics include: contemporary chicano arts; chicana women; Mexican-American folklore; teacher roles in multicultural schools; cultural factors in human resources development. May be repeated for credit when topics vary.

6053 Testing Members of Bicultural-Bilingual Societies

(3-0) 3 hours credit.

Issues of testing with non-dominant ethnic populations, research projects in appropriate assessment of intelligence and language among minority groups.

6063 Research Methodology in Bilingual and Second Language Studies

(3-0) 3 hours credit.

Research design for the study of psychological and linguistic variables in bilingual and second language populations; emphasis on designing a research project.

6073 Ethnographic Research Methods in Bicultural-Bilingual Studies

(3-0) 3 hours credit.

Multidisciplinary techniques to survey and analyze bilingual-bicultural dynamics in institutional and community settings, with emphasis on socio-linguistics, unobtrusive research methods, and research ethics.

6153 Evaluating Bilingual and Second Language Programs

(3-0) 3 hours credit.

Design and implementation of program evaluation procedures, purposes and types of evaluation related to bilingual and second language programs.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate 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 not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

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

6983 Master's Thesis

3 hours credit. Prerequisites: Admission to candidacy and permission of the Graduate Advisor and thesis director.

Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.

COURSE DESCRIPTIONS

ENGLISH AS A SECOND LANGUAGE

(ESL)

5003 Linguistics for Second Language and Bilingual Specialists

(3-0) 3 hours credit.

Concepts in linguistics, including descriptive and contrastive linguistics, with focus on implications for second language teaching.

5013 Psycholinguistic Foundations of Second Language Teaching/Learning

(3-0) 3 hours credit.

The study of the principles and theories critical for the teaching, acquisition and testing of second languages with attention to the linguistic foundations on which these are based.

5023 Language Analysis for Second Language Specialists

(3-0) 3 hours credit.

Study of English grammar from descriptive and discourse perspectives with consideration of cross-linguistic contrasts and of applications for teaching English as a second language.

5033 Reading Acquisition and Techniques

(3-0) 3 hours credit.

A course on the relationship of reading acquisition to language development including oral language and writing development. The preparation and adaptation of reading materials for various levels of proficiency. Critical evaluation of existing second language reading materials and progressive second language readers available in controlled vocabularies.

5053 Second Language Teaching Methods

(3-0) 3 hours credit.

A critical study of various methodologies in second language teaching.

5063 Second Language Teaching Techniques

(3-0) 3 hours credit.

A study of and a practicum in techniques for use in the second language class, with emphasis on integration of oral language and literacy.

6013 Error and Discourse Analysis

(3-0) 3 hours credit.

Study of second language acquisition through data-based analysis of learners' language systems.

6023 History of Second Language Teaching

(3-0) 3 hours credit.

A history of the principles of language teaching from antiquity to the present day, with special emphasis on the historical aims of language teaching; the relevancy of particular methods; and the theoretical justifications for past methods and techniques.

6033 Topics in Second Language Teaching

(3-0) 3 hours credit.

Suggested topics include: the direct method in language teaching; teaching foreign languages in the elementary school; the audio lingual methods, techniques and practices; language policy and implementation. May be repeated for credit when topics vary.

6053 Seminar in Second Language Test Construction

(3-0) 3 hours credit.

Investigation of various approaches, methods, and techniques for testing in English as a Second Language Programs, with emphasis placed on tests of English language aptitude, proficiency, achievement, and dominance.

6063 Controlled Composition and Writing in Second Language Programs

(3-0) 3 hours credit.

The development, presentation, and evaluation of materials for the teaching of composition and writing to second language learners in English as a Second Language and Bilingual Programs. Emphasize relationship of writing development to proficiency in oral language development and reading.

6073 Language Teaching Materials

(3-0) 3 hours credit.

Offers the student the opportunity to develop skills in the revision, adaptation, and utilization of published language teaching materials. Emphasizes materials for oral language and literacy development.

6943 Internship in English as a Second Language

(3-0) 3 hours credit. Prerequisite: Eighteen (18) hours of coursework in ESL and consent of instructor.

Supervised training in teaching English as a Second Language at the adult level. Individual conferences and written reports required. May be repeated for credit to a maximum of 6 hours.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate 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 not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

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

6983 Master's Thesis

3 hours credit. Prerequisites: Admission to candidacy and permission of the Graduate Advisor and thesis director.

Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.

DIVISION OF EDUCATION

MASTER OF ARTS DEGREE IN EDUCATION

The Master of Arts Degree in Education offers the student the opportunity for advanced study and professional development programs in seven fields of concentration:

- Cultural Foundations of Education
- Curriculum and Instruction
- Early Childhood and Elementary Education
- Educational Management
- Educational Psychology/Counseling and Guidance
- Educational Psychology/Special Education
- Institutions of Higher Education

Education concentrations provide specialized degree plans in one or more areas of program emphasis so that students may choose a plan that is suitable to their particular needs and objectives. Degree plans are designed primarily to offer the opportunity to gain advanced levels of knowledge and professional competency for persons engaged in or concerned about educational activity in schools, colleges, and other public or private institutions and agencies. Credit toward graduate-level certificates and certificate endorsements may be earned in conjunction with work toward the Master's degree in most programs. Programs with a thesis option are available which emphasize the development of research competencies critical to continued graduate-level study.

The Concentration in Cultural Foundations of Education

This concentration offers the opportunity for advanced general study of the field of Education, examining the philosophical, sociological and psychological issues that influence institutions and processes of education as well as the disciplines of knowledge and the modes of inquiry that nourish and sustain them.

The Concentration in Curriculum and Instruction

The program emphases in Curriculum and Instruction are focused on the theoretical and practical aspects of curriculum planning, development, implementation, and evaluation in all subject fields and at all educational levels. The concepts of curricular innovation and teaching excellence are stressed in conjunction with expanded knowledge of content fields and applied research. Students who desire to specialize in a teaching field may do so by taking courses in that field to support the concentration in Curriculum and Instruction.

The Concentration in Early Childhood and Elementary Education

The concentration in Early Childhood and Elementary Education focuses on the broad spectrum of development and learning in children from infancy through preadolescence. Emphasis is on translating related research and theory into curriculum development and instruction, with the intent of helping children to realize the most complete development possible for them in a multicultural society. This concentration is designed primarily for experienced classroom teachers at the early childhood and elementary levels, but it is also suitable for personnel in human services and other allied fields.

The Concentration in Educational Management

Students seeking the opportunity to apply for management careers in public or private schools and school systems should follow programs in this concentration. The unique problems, processes, and expertise associated with effective personnel management and curriculum leadership are explored, developed, and tested in practical field-based settings with an emphasis on applied research and human relations methodologies.

The Concentration in Educational Psychology/Counseling and Guidance

This concentration is designed for those students interested in careers in counseling and guidance at the elementary, secondary, or higher education levels and for those students interested in related mental health services. Coursework provides students the opportunity to apply for professional counselor certification (elementary and secondary) and/or for professional counselor licensure.

The Concentration in Educational Psychology/Special Education

This concentration is designed for those students seeking an opportunity for additional or advanced preparation for teaching handicapped children and youth. The student may elect one or more of a variety of specific emphases possible. The program is intended to offer students the opportunity for theoretical understandings and clinical opportunities to develop and apply skills in working with handicapped learners.

The Concentration in Institutions of Higher Education

This concentration offers the opportunity for advanced study for careers in Educational institutions for adult learners. Program emphases are offered for persons preparing to teach in higher education and adult continuing education programs, and for those whose interests are directed toward administrative/managerial roles in institutions or agencies that serve adult education functions. The program is designed for those for whom the Master's degree is terminal as well as for those pursuing the Master's degree as an intermediate program leading to further graduate study.

Special Admission Requirements. Individuals without adequate preparation in Education may be required to complete preparatory courses as a condition of admission.

Degree Requirements. All degrees in Education have five required components: a core of common courses, a candidacy examination, a program emphasis, support work, and a comprehensive examination.

A) A core of courses common to all concentrations

1. EDU 5003, Research Methods in Education.
2. EDU 5103, Contemporary Educational Philosophy
3. EDP 5003, Psychological Basis for Learning
4. C&I 5003, Theory and Dynamics of Curriculum and Instruction.

B) A candidacy examination

The courses in the core must be taken as part of the first 18 hours in the program. When the core courses have been completed, the student should (1) apply for candidacy, (2) take the candidacy examination, (3) have his/her committee appointed, and (4) file a degree plan. All of these steps are done in consultation with the assigned Program Advisor and/or the Graduate Advisor for Education.

To be admitted to candidacy, the student must have (1) maintained a B average on courses taken prior to application for candidacy, (2) obtained a passing score on the candidacy examination covering the four core courses, (3) filed a degree plan, and (4) applied for candidacy by completing the appropriate form in the Division office. The Candidacy Examination may be taken two times. If a student does not achieve a passing score on the examination the second time, he/she may appeal for permission to take the examination a third time but this appeal may be submitted only after the lapse of one calendar year. The appeal must be in writing to the student's supervisory committee and must include justification for the request.

C) A program emphasis

The program emphasis must consist of at least twelve (12) hours in one of the following concentrations. (Courses outside the specific concentration may be

used to meet this requirement with advance approval of the student's supervisory committee and the Graduate Advisor.):

1. Cultural Foundations of Education
2. Curriculum and Instruction (Program emphases: Master Teacher, Curriculum Specialist, Instructional Media Specialist, Curriculum Evaluation Specialist, Reading Specialist, Instructional Supervisor)
3. Early Childhood and Elementary Education
4. Educational Management
5. Educational Psychology/Counseling and Guidance
6. Educational Psychology/Special Education (Program emphases: Generic Special Education, Severely and Profoundly Handicapped, and Severely Emotionally Disturbed and Autistic)
7. Institutions of Higher Education (Program emphases: College and University Teaching, College and University Administration, Adult and Continuing Education)

The student should take no more than 6 hours of course work in the concentration or elective areas prior to admission to candidacy for the Master's Degree. (See part A above.)

D) Support Work

Each student is required to select additional courses, with the consent and advice of the Program Advisor and with the approval of the Graduate Advisor, the Division Director, and the Dean, to complete degree requirements of 33 hours (with thesis) or 36 hours (without thesis). Nine hours of courses must be selected to support the concentration. Three additional hours must be taken with the approval of the Graduate Advisor.

Students in the Master Teacher program, in Supervision programs, and in Higher Education: College Teaching programs will take support courses in their teaching fields. Students in teacher certification programs may take their support work courses in areas that meet certification requirements. It is recommended that thesis students take EDU 5053 as part of the support work in the programs, but substitute courses are allowable if recommended by the student's supervisory committee.

E) Comprehensive Examination

The student's supervisory committee is responsible for administering this examination.

Summary of Degree Options

Option I, with thesis

Core

EDU 5003

EDU 5103

EDP 5003

C&I 5003

12 hours

Concentration

Courses required for a program emphasis in a single concentration

12 hours

Option II, without thesis

Core

EDU 5003

EDU 5103

EDP 5003

C&I 5003

12 hours

Concentration

Courses required for a program emphasis in a single concentration

12 hours

Support	Support
EDU 5053 or approved substitution	9 hours of support courses
EDU 6983 (six hours)	3 hours of approved electives
	9 hours
Total: 33 hours	12 hours
	Total: 36 hours

COURSE DESCRIPTIONS

CURRICULUM AND INSTRUCTION

(C&I)

5003 Theory and Dynamics of Curriculum and Instruction

(3-0) 3 hours credit.

An examination of theoretical structures underlying curriculum considerations and the implications of these for the work of responsible curriculum decision-makers at all levels, including administrators, instructional supervisors, and classroom teachers.

5103 Diagnosis and Prescription: Individualizing Instruction

(3-0) 3 hours credit. Prerequisite: Admission to candidacy or consent of instructor.

An in-depth study of the tasks and problems associated with individualized instruction. Students will be offered the opportunity to examine the means available for measuring and diagnosing individual learning needs and styles and for selecting from alternative learning materials and environments those most appropriate to individual needs. This course and SED 5103 may not both be taken for credit.

5133 Student Learning and Mathematics Instruction

(3-0) 3 hours credit.

Mathematics teaching from the perspective of learning theories. Student characteristics and their theoretical explanations as the basis for mathematics curricula and instructional processes. The relation of learning theories to the acquisition of mathematical concepts and processes.

5313 Instructional Materials Production I: Graphics

(3-0) 3 hours credit. Prerequisite: C&I 5003 or consent of instructor.

The opportunity for preparation in the skills required for the production of a variety of materials for classroom use. The rationale for the use of visual media and the specifics of design and technical production procedures for the creation of effective instructional media formats are presented.

5343 Programming Instruction

(3-0) 3 hours credit. Prerequisite: C&I 5003 or consent of instructor.

A course intended to offer students the opportunity for preparation in the specific theory and skills of developing programmed instructional materials. S-R Theory as applied in the development of programmed instruction will be examined. Students will be expected to develop and developmentally test a unit of programmed instruction.

5403 Instructional Design and Development

(3-0) 3 hours credit. Prerequisite: C&I 5003 or consent of instructor.

A course dealing with the design of instruction. Special attention will be given to theory and method of design based on congruence between identified needs and approaches to curriculum development.

5503 Curricula for Pre-school and Primary Children

(3-0) 3 hours credit.

Opportunity is provided for a systematic analysis of curricula for pre-school and primary grade children, including a critical study of related objectives, organizational schemes, content teaching strategies, and materials.

5513 Materials, Methods, and Techniques in Teaching Early Childhood Education

(3-0) 3 hours credit.

A study of the methodologies and techniques effective in teaching preschool and elementary school children. Construction and use of materials for teaching at the level of student ability. This course and ECE 5513 may not both be taken for credit.

5523 Curriculum Planning for Early Childhood and Elementary Education

(3-0) 3 hours credit. Prerequisite: C&I 5003 or consent of instructor.

An analysis of the basis for curriculum planning in early childhood and elementary content areas; consideration of developmental levels, domains of learning, and taxonomies of objectives with special attention to the role of the teacher and the student, the uses of materials, the classroom environment, and special student populations.

5533 Curriculum for Handicapped Children and Youth

(3-0) 3 hours credit. Prerequisites: Admission to candidacy and EDP 5403 or consent of instructor.

Opportunity will be provided for analysis of curriculum planning and sequencing and also for students to plan instructional materials appropriate for the implementation of mandated individual educational plans for handicapped children and youth.

5543 Curriculum Planning and Development for Severely/Profoundly Handicapped Children and Youth

(3-0) 3 hours credit.

The study, development and implementations of curriculum appropriate to educating severely and profoundly handicapped children and youth. Includes analysis of commercially available curricula and the development of curricula to meet the educational needs of the severely handicapped.

5603 Curricula for Elementary School Children

(3-0) 3 hours credit.

A systematic analysis of elementary school curricula. A critical study of the objectives, methods of curricular organization, and content used with elementary school children grades 1-8.

5743 Reading in Secondary School

(3-0) 3 hours credit.

Principles and techniques for teaching higher level reading and comprehension skills to improve proficiency in learning various academic subjects in middle and secondary schools. Strategies for meeting needs of the wide range of ability levels found in secondary schools.

5763 Diagnosis and Remediation of Reading and Learning Problems

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

Multidisciplinary approach to diagnosis and remediation of reading disabilities with attention to neurological, physical, perceptual, mental, emotional, cognitive, and linguistic aspects which may impede learning.

5773 Clinical Practicum in Reading

(3-0) 3 hours credit. Prerequisite or concurrent enrollment: C&I 5763 or consent of instructor.

Application of diagnostic and remedial procedures with individual children; guided field based experiences with weekly seminars designed to enrich the field experience.

5783 Survey of Reading Research

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

A review of past and current literature and research concerning the reading process, curricula, and instructional practice. Opportunity for students to acquire critical analysis skills in evaluating research.

5793 Seminar in Reading Supervision

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

Organization of developmental and remedial reading and writing programs. Selection of appropriate materials. Techniques and procedures for maintaining quality programs, including staff selection and inservice training. The role of research in improving the teaching of reading and writing.

5803 Higher Education Curricula

(3-0) 3 hours credit.

A systematic analysis of higher education curricula. A critical study of objectives, methods of organization, content, methods, and materials of learning used with college students.

6003 Supervision: Theoretical Basis

(3-0) 3 hours credit. Prerequisite: Admission to candidacy or consent of instructor. An application of curriculum development theory, educational planning theory, learning theory, and human relations theory to instructional supervision; an examination of the role of the supervisor.

6013 Supervision: Teaching-Learning Process

(3-0) 3 hours credit. Prerequisite: C&I 6003 or consent of instructor. The analysis and application of models of the teaching-learning process to instructional supervision; the study and application of content, interaction, and climate analysis techniques.

6023 Supervision: Tools and Techniques

(3-0) 3 hours credit. Prerequisite: C&I 6003 or consent of instructor. A study of impact strategies in instructional supervision, and the development of communication and interpersonal skills needed for working with teachers.

6153 Occupational Information and Resources

(3-0) 3 hours credit. Prerequisite: EDP 5203 or consent of instructor. A study of theories of occupational choice and vocational development and their application to the guidance process. Investigation of career education and its implication for career guidance services in schools. Identification and utilization of various types of occupational information and resources for students (including handicapped students).

6203 Instructional Procedures for Handicapped Children and Youth

(3-0) 3 hours credit. Opportunity to study instructional methodologies and procedures effective in educating handicapped children and youth within a variety of administrative arrangements.

6303 Advanced Methods in Subject-Matter Fields

(3-0) 3 hours credit. Prerequisite: C&I 5003 or consent of instructor. Course sections are designed to offer students the opportunity to develop skill in instructional methodology that is specifically related to and derived from the characteristics of the discipline taught.

1. Science
2. Mathematics
3. Social Studies
4. Language Arts
5. Foreign Languages
6. Physical Education
7. Philosophy for Children

May be repeated for credit when disciplines vary.

6403 Instructional Procedures for Severely/Profoundly Handicapped Children and Youth

(3-0) 3 hours credit. A study of theories, methodologies and instructional practices for educating severely handicapped children and youth (including emotionally disturbed and autistic) in a variety of delivery arrangements.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate 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 not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

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

COURSE DESCRIPTIONS
EARLY CHILDHOOD AND ELEMENTARY EDUCATION
(ECE)

5123 Seminar in Development in Early Childhood and Infancy

(3-0) 3 hours credit. Prerequisite: EDP 5013 or consent of instructor.

Studies of the results of stimulating sensory equipment in the early years and investigation of insufficient psychological and physiological nourishment. Deviations from steady differentiation of emotional responses during early childhood, achievement motivation and studies of frustration and tolerance. Includes suggested practices that may enable future generations to avoid developmental disruptions and to alleviate existing developmental handicaps.

5133 Language Development in Preschool-Primary Children

(3-0) 3 hours credit.

Study of early acquisition and development of language skills. Emphasis on identifying the sequence of normal expressive and receptive language development in terms of the child's related abilities and learning experiences.

5453 Classroom Behavior Problems in Children

(3-0) 3 hours credit. Prerequisite: EDP 5003 or consent of instructor.

A survey of common behavioral problems of children likely to be encountered by teachers in elementary and early childhood classrooms. Emphasis on understanding factors which influence the development of such problems in school aged children, and curricular considerations affecting or affected by classroom behavior.

5473 Specialized Instruction in Early Childhood and Elementary Education

(3-0) 3 hours credit. Prerequisite: C&I 5503 or consent of instructor.

Identification, description, analysis, and evaluation of examples of specialized instruction as related to needs of learners, characteristics of subject matter, and/or demands of an environment.

6123 Administration of Early Childhood Programs

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

A study of the organization, structure, and operation of Kindergarten, Day-care, and Nursery programs, both public and private. Implications for elementary education.

6163 Biological Basis of Child Development

(3-0) 3 hours credit. Prerequisites: One course in general biology or general psychology or consent of instructor.

Analysis of biological and psychological perspectives on child growth and development. Emphasis on theoretical aspects of biopsychological and social factors influencing cognitive and learning functions.

6183 Seminar in Early Childhood Education in Cross-Cultural Perspective

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

An examination of contrasting strategies of socialization employed by societies around the world, past and present; limits of and alternatives to formal early childhood education in the current Western sense. Readings are drawn from both ethnographic and theoretical sources in anthropology, psychology, and education.

6453 Assessment and Evaluation in Early Childhood and Elementary Education

(3-0) 3 hours credit. Prerequisite: Admission to candidacy or consent of instructor.

Evaluation and research on educational programs, processes, products, instructional objectives, and alternative approaches to attain objectives. Methods and materials for disciplined inquiry into current significant issues in early childhood and elementary education. The student will systematically examine a major educational issue relevant to his/her specialization.

6473 Seminar in Elementary Education

(3-0) 3 hours credit.

Examination of the discipline of a subject-field selected, e.g. science, social studies, music, including an intensive study of research findings, publications of related professional organizations, and advanced experimentation related to teaching/learning situations.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate 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 not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6963 Internship in Early Childhood or Elementary Education

3 hours credit. Prerequisite: Consent of instructor.

Seminar presentations and discussion of methods, techniques, and procedures coupled with directed experiences 1) in the early childhood education setting, 2) in the elementary school, and 3) in the area of reading. May be repeated for credit to a maximum of 9 hours.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

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

COURSE DESCRIPTIONS
EDUCATION
(EDU)

5003 Research Methods in Education

(3-0) 3 hours credit. Prerequisite: Admission to graduate program or consent of instructor. Basic concepts of research design, strategies of experimental, historical, and descriptive research, and basic statistical procedures are introduced. Participants use these concepts to read, interpret, and evaluate educational research and to plan and conduct such research. A field study may be required.

5053 Inferential Educational Statistics

(3-0) 3 hours credit. Prerequisites: EDU 5003 and STA 5073 or consent of instructor. The concept of inferential statistics in education as a means of drawing conclusions and interpreting results is a central theme. A variety of statistical techniques often used in educational research are introduced with the intent of having students be able to elect the appropriate statistical procedure and interpret the results.

5103 Contemporary Educational Philosophy

(3-0) 3 hours credit.

Philosophical analysis of issues in American education. Consideration is given to ethical and epistemological implications of issues with an emphasis on the evaluation of arguments for the adoption of educational policy.

5203 Evolution of Educational Thought

(3-0) 3 hours credit.

An examination of the major educational thinkers in Western Civilization and a review of past institutional arrangements for education.

5403 Education, Cultural Differences and Acculturation

(3-0) 3 hours credit.

Educational changes and adjustments resulting from the interaction of a variety of different cultural backgrounds in the modern school. Specialized techniques, processes, and programs designed to meet unique learning needs of the non-English speaking child.

5503 Seminar in Social Foundations of Education

(3-0) 3 hours credit.

Examination and analysis of social structures, values, and cultures as these interact with educational systems. Special emphasis will be placed on the urban environment and its particular relationships with education.

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Educational Management**

5703 Micro-Computer Applications for Educational Settings

(3-0) 3 hours credit. Prerequisite: CS 5003 or consent of instructor.

A study of the operations and applications of micro-computers in educational settings. Emphasis on the development and testing of these applications in an educational environment.

6603 Seminar in Educational Research

(3-0) 3 hours credit. Prerequisite: Completion of no less than 30 semester hours of degree program.

Each student will be expected to: (1) develop plans for a research project related to an educational issue, (2) collect and analyze data to carry out the research, (3) prepare a research report, and (4) participate in research seminars.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate 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 not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

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

6983 Master's Thesis

3 hours credit. Prerequisites: Admission to candidacy in the Master's Program and permission of the Graduate Advisor and thesis director.

Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.

**COURSE DESCRIPTIONS
EDUCATIONAL MANAGEMENT
(EDM)**

5003 General School Administration

(3-0) 3 hours credit. Prerequisite: One year of teaching experience or consent of instructor. The roles, tasks, and problems of district and building-level administrators; interrelationships of modern school systems and their relationships to local, state, and federal government.

5103 School Finance and Taxation

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

Current problems, issues, and practices in local, state, and federal financial support for primary and secondary schools and the relation of school finance problems to broader socio-economic issues.

5203 School and Community Relations

(3-0) 3 hours credit.

Parent participation in the school and strategies for informing the community about school activities and promoting school community interactions are analyzed. Studies will be made on interrelationships among the home, schools, and community.

5303 Human Relations in Educational Administration

(3-0) 3 hours credit.

Analysis and identification of group processes and individual behavior which tend to enhance democratic interaction in the achievement of educational goals. Consideration of supportive roles requisite to the supervision of professionals in the educative process.

5403 The Principalship

(3-0) 3 hours credit. Prerequisites: One year teaching experience, and completion of EDM 5003 and EDM 5103, or consent of program coordinator.

Analysis of the principal's role as he or she interacts with his or her various referent groups. Special emphasis on behavior and on supervision of the instructional program. Applicable to elementary and secondary administration.

5503 Administration and Function of Special Programs

(3-0) 3 hours credit. Prerequisites: EDM 5003 and EDM 5103, or consent of program coordinator.

A study of the role of the administrator in initiating, developing, supervising, and supporting programs in Guidance, Vocational and Technical Education, Career Education, Special Education, Compensatory Education, and Reading.

5603 Seminar in Applied Research in Educational Management

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

Locating and analyzing researchable problems in educational management, conducting literature searches basic to planning research, collecting and analyzing data. Each student will be expected to complete a research study and submit a report in such form that would be useful for application in a school system.

5703 Legal Foundations of Education

(3-0) 3 hours credit.

Analysis of current legal basis and practices in the governance of education and the implications of significant court decisions pertaining to school operations. Emphasis on legislation related to the multicultural nature of society and the schools.

6103 Personnel Administration

(3-0) 3 hours credit. Prerequisite: MGT 5003 or consent of instructor.

Problems in the personnel administration of public and private schools. Policies affecting personnel, rights and responsibilities of students and teachers, insurance, salary schedule, retirement, sick leave, collective negotiations, and auxiliary enterprises.

6203 Educational Funds and Facilities Management

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

An analysis of funds and facilities planning, managing, and utilization at the school district level. Emphasis is upon relating funds and facilities management to the needs of local school districts.

6303 Education Systems Analysis

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

A study of systems analysis techniques applicable to education including PERT, P.P.B.S., M.B.O., and other management systems, including management information systems.

6403 Organizational and Administrative Theory in Education

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

A study of current theories, concepts, and principles of leadership and their in-depth application to educational roles. Emphasis is placed on the responsibility of the educational administrator for effective leadership in the school and community and the evaluation of staff competence and role performance.

6503 Futurology and Educational Planning

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

An examination of knowledge, values, attitudes, and feelings regarding future cognition along with psychological and ethical issues regarding futurology and long-range planning. Identification of techniques of analysis and methodological approaches for forecasting related to the educational subsystem. Development of concepts of desired futures and strategies for changing the subsystem to meet these demands.

6943 Internship

(3-0) 3 hours credit. Prerequisite: EDM 5603 and consent of program coordinator.

Individually supervised on-the-job experience with building-level or district-level administrators or program specialists with related reading and study. May be repeated for a total of 6 semester hours. Must be taken for both the midmanagement and superintendency certification.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate 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 not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6971-3 Special Problems

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

COURSE DESCRIPTIONS
EDUCATIONAL PSYCHOLOGY
(EDP)

5003 Psychological Basis for Learning

(3-0) 3 hours credit.

A concentrated analysis of mental processes important to learning and an evaluation of the major concepts, theories, and results of research in learning as applied to education.

5013 Learning Theories Related to Child Development

(3-0) 3 hours credit.

A study of developmental and learning theories related to the growth of the child from infancy through childhood.

5023 Learning Theories Related to Adolescent Development

(3-0) 3 hours credit.

A study of developmental and learning theories related to growth during the adolescent and adult period.

5203 The Guidance Function in Education

(3-0) 3 hours credit. Prerequisite: Admission to candidacy or consent of instructor.

The role of guidance services in education. Focus will be on teacher, counselor, administrator roles, current and emerging practices.

5213 Counseling Theories

(3-0) 3 hours credit. Prerequisite: EDU 5003.

Counseling theory and techniques for identification of student problems. Focus on tools and techniques for identification; counseling for personal adjustment.

5223 Psychometric Procedures

(3-0) 3 hours credit. Prerequisite: EDP 5203 or consent of instructor.

Offers the opportunity for students to study group tests, with a focus on analysis and interpretation of instruments used to measure achievement, aptitude, interests, and personality.

5233 Group Processes: The Individual in the Group

(3-0) 3 hours credit. Prerequisite: EDU 5003 or consent of instructor.

A study of group structure and theory. Focus on group influences on behavior.

5263 Child and Adolescent Counseling

(3-0) 3 hours credit. Prerequisite: EDP 5203 and either EDP 5013 or EDP 5023 or consent of instructor.

Analysis of factors accounting for abnormal behavior and factors contributing to psychological health in children and adolescents. Counseling procedures are studied. Case work is required.

5303 Principles and Techniques of Evaluation

(3-0) 3 hours credit.

Study of the role of evaluation, development of instruments for assessing the products of learning, and the techniques for interpreting and communicating evaluation results.

5393 Development of Counseling Skills

(3-0) 3 hours credit. Prerequisite: EDP 5213 or consent of instructor.

A systematic approach to counseling. Focus on sequential learning of counseling skills and their practical application in a field setting. Counseling sessions will be audio-taped and analyzed.

5403 The Exceptional Child in School

(3-0) 3 hours credit. Prerequisite: Admission to candidacy or consent of instructor.

An introduction to and survey of the field of special education. Characteristics, etiology, definition, and prevalence of exceptional children; description of services available; field experiences.

5413 Severely/Profoundly Handicapped Children and Youth

(3-0) 3 hours credit. Prerequisite: EDP 5403 or consent of instructor.

A study of the severely/profoundly handicapped from historical, sociological, psychological, and educational perspectives. The implications of a variety of theories for the education of the severely/profoundly handicapped will be examined. Current trends in service delivery will be studied.

5423 Behavior Modification and Classroom Management

(3-0) 3 hours credit. Prerequisite: EDP 5403 or consent of instructor.

Principles and procedures of behavior modification and classroom management to facilitate the acquisition and improvement of social academic and life skills of handicapped children and youth. Requires an applied project.

5443 Parent Conferences and Consultative Skills in Special Education

(3-0) 3 hours credit. Prerequisite: EDP 5403 or consent of instructor.

The opportunity to acquire knowledge and skills for working with parents, teachers, and other professionals in optimizing the exceptional child's educational and therapeutic experiences. Students will plan, implement, and evaluate a series of parent training and consultative experiences.

5453 Characteristics of the Child with Learning Disabilities

(3-0) 3 hours credit.

A study of the incidence, prevalence, etiology, and characteristics of the child with learning disabilities. The relationship between LLD, child development, school environment, and academic performance will be studied. Special emphasis will be given to a critical analysis of formal and informal assessment techniques.

5463 Language Development and Intervention With the Handicapped Child

(3-0) 3 hours credit. Prerequisite: EDP 5403 or consent of instructor.

Methods for assisting handicapped pupils to achieve communicative competence through language acquisition, remedial and intervention programs, and alternative non-speech language and communication systems.

5473 Behavior Analysis and Intervention with Severely/Profoundly Handicapped Children and Youth

(3-0) 3 hours credit.

Principles and procedures of behavior analysis and intervention for the acquisition and improvement of skills of the severely handicapped. An applied behavior analysis project is required.

5543 The Behaviorally Disordered Child

(3-0) 3 hours credit.

Designed to offer the opportunity for special educators and students in related fields with an understanding of various theories and practices in the field of behavior disorders. Research relative to the education of the behaviorally disordered child as well as its practical implications for the classroom teacher will be considered.

5553 Assessment and Evaluation of Handicapped Children and Youth

(3-0) 3 hours credit.

Designed to offer the opportunity for students to develop the ability to use a variety of instruments and procedures to evaluate the behavior and performance of handicapped individuals. Assessment techniques, instruments, and procedures to evaluate cognitive, educational, psychological, and behavioral domains.

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Health and Physical Education

5563 Practicum in Special Education: Mildly and Moderately Handicapped Children and Youth

(3-0) 3 hours credit. Prerequisites: EDP 5403 and consent of instructor.

The application of theoretical principles to field settings. Students will be required to develop, implement, and evaluate educational programs for mildly and moderately handicapped children and youth.

5573 Practicum in Special Education: Severely/Profoundly Handicapped

(3-0) 3 hours credit. Prerequisites: EDP 5403 and consent of instructor.

The application of theoretical principles to field settings. Students will be required to develop, implement, and evaluate educational programs for severely handicapped children. May be repeated for credit one time (6 hours total credit).

5593 Practicum in Special Education: Behavior Disorders

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

The application of theoretical principles to field settings. The student will work in educational settings which will include planning, implementing, and evaluating appropriate experiences with emotionally disturbed students.

5623 Advanced Individual Appraisal

(3-0) 3 hours credit. Prerequisite: EDP 5553 or EDP 5223 or consent of instructor.

Offers the opportunity for the development of skills in the administration and interpretation of major individually administered diagnostic and clinical instruments and procedures: Wechsler Intelligence scales and supplementary tests. Limited enrollment.

5693 Practicum in Counseling

(3-0) 3 hours credit. Prerequisite: EDP 5393 or consent of instructor.

Offers the opportunity for supervised field work in a counseling setting. May be repeated for credit to a maximum of 6 hours.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate 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 not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6963-6 Internship

3 or 6 hours credit. Prerequisite: Consent of instructor.

The opportunity for a supervised field-based experience in some aspect of educational psychology with related reading and study. May be repeated for credit to a maximum of 6 hours.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

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

COURSE DESCRIPTIONS
HEALTH AND PHYSICAL EDUCATION
(HPE)

5003 Current Trends in Physical Education

(3-0) 3 hours credit.

Students will have the opportunity to examine current developments in theories and practices of physical education. Recent research and literature will be examined for causes and consequences of today's issues, trends, and problems.

5013 The Role of Sport in Society

(3-0) 3 hours credit.

Opportunity to study human behavior in sport and physical activity. Functional approach to a contemporary view of the impact of sport and physical activity on society. Examination of the various aspects of sport and affective roles that it takes as part of social structure and education.

5023 Leadership in Physical Education

(3-0) 3 hours credit.

Opportunity for examination of the various leadership roles in physical education. Analysis of the principles, duties, responsibilities, and processes of leadership for the professional physical educator.

COURSE DESCRIPTIONS

HIGHER EDUCATION

(HED)

5003 The Development of Higher Education in the U.S.

(3-0) 3 hours credit.

A study of the transition from patterns of European institutions of higher learning to the development of uniquely American institutions. Relates the development of resources, human and physical, to the changing role of higher education in American society.

5203 The American College Student

(3-0) 3 hours credit.

The college student's role in contemporary society; characteristics, basic values, peer group influence, campus culture, needs and pressures.

5303 Seminar in Governance of Higher Education

(3-0) 3 hours credit.

Analysis of current practices and issues in the governance of higher education which affect students, faculty, administration, scope and role of colleges and universities.

5603 Development and Organization of Adult and Continuing Education

(3-0) 3 hours credit.

Exploration of forms of continuing and adult education conducted by business and industry, the armed forces, educational institutions, and private foundations, including federal and state programs of support; external and alternative degree programs; the open university concept and self-study programs; general treatment of historical development.

5623 Adult and Continuing Education Management Systems

(3-0) 3 hours credit.

Organization for adult and continuing education within a college or university and its relationship to the entire institution. Staffing, training, directing and controlling the continuing education effort. Planning, programming, and budgeting. Marketing and public relations. Methods of determining the market. Evaluation of administrative and academic performance.

6003 The Community College

(3-0) 3 hours credit.

The historical and philosophical foundations for the community junior college movement in the United States will be analyzed and utilized as a basis for understanding contemporary trends and problems of community junior colleges.

6103 Effective Teaching in Higher Education

(3-0) 3 hours credit.

A seminar that focuses on the image of the college professor and on a review of the current research on the teaching/learning process at the college or university level. Includes a review of educational psychology of the late adolescent and adult, an investigation of new and effective instructional methods, and an appraisal of evaluation procedures.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate Advisor, and the Division Director and Dean of the College in which the course is offered.

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Secondary Education**

Independent reading, research, discussion, and/or writing under the direction of a faculty member. For students needing specialized work not normally or not often available as part of the regular course offerings: May be repeated for credit, but not more than 6 hours, regardless of discipline, may be counted toward the Master's degree.

6963 Internship in Higher Education

3 hours credit. Prerequisite: Consent of instructor.

A supervised field-based experience in some aspect of higher education with related reading and study.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Problems courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, may be counted toward the Master's degree.

**COURSE DESCRIPTIONS
SECONDARY EDUCATION
(SED)**

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate 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 not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, may be counted toward the Master's degree.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Problems courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, may be counted toward the Master's degree.

DIVISION OF SOCIAL AND POLICY SCIENCES

MASTER OF PUBLIC ADMINISTRATION DEGREE

The Master of Public Administration (MPA) Degree is designed to offer the opportunity for advanced study to students interested in professional careers in the public sector at all levels of government.

Special Admission Requirements. In order to qualify for unconditional admission, applicants must (a) satisfy university-wide graduate admission requirements; (b) have completed at least eighteen hours (twelve of which must be upper division) of course work in an appropriate academic discipline; and (c) an undergraduate research methods or statistics course (e.g., SSC 3003). Judgment on admission will be based on a combination of the following factors for each applicant: (a) performance on the Graduate Record Exam (GRE) or Graduate Management Admission Test (GMAT); (b) undergraduate transcripts and trend of grades; (c) professional background.

Degree Requirements. The minimum number of semester hours required for the MPA degree, exclusive of course work or other study required to remove deficiencies, is 42.

All candidates for the degree must complete:

A. 18 semester hours of core courses:

- 1. FIN 5043 Budgeting and Finance in the Public Sector
or
PAD 5373 Resource Allocation for the Public Sector
- 2. PAD 5003 Contemporary Perspectives on Public Administration
- 3. PAD 5323 Public Policy Formation
- 4. PAD 5903 Quantitative Methods for Public Administration
- 5. PAD 6513 Communication Skills for Public Management
- 6. POL 5353 Theories of Public Bureaucracy

B. 12 semester hours in a specialization chosen in consultation with the MPA program graduate advisor.

- 1. Administration of Justice
- 2. Public Sector Personnel Management
- 3. International Administration and Policy
- 4. Public Management and Public Policy
- 5. Public Sector Financial Management
- 6. Urban Planning Management

C. 6 semester hours of electives

D. 6 semester hours of Internship, Practicum or Thesis. Consent of the Dean, the Director, and the MPA Graduate Advisor of Record must be received before enrollment in these courses.

All candidates for the degree must be admitted to candidacy normally at the end of one semester of full-time study or upon completion of 12 semester hours of graduate work. To be admitted to candidacy a student must have an acceptable Program of Study and must be recommended for Admission to Candidacy by the Committee on Graduate Studies and Division Director and must be approved for Admission to Candidacy by the Dean. Additional requirements for Admission to Candidacy are set forth in the Master's Degree Regulations section of the catalog.

In addition to the semester hour requirements set forth above, all candidates for the degree are required to pass comprehensive examinations, both written and oral, which will be scheduled after a student has completed at least 30 semester hours of course work.

COURSE DESCRIPTIONS PUBLIC ADMINISTRATION (PAD)

5003 Contemporary Perspectives on Public Administration

(3-0) 3 hours credit. Prerequisite: Graduate standing.

Provides an introductory overview of major issues in public administration. Examines the roots of the discipline in relation to current trends in public sector management.

5223 Urban Management

(3-0) 3 hours credit.

An examination of the major economic, social, and political processes involved in managing urban government in the United States. Special attention is given to retrenchment, capital budgeting, and intergovernmental financial policies as they relate to municipal government.

5323 Public Policy Formation

(3-0) 3 hours credit.

Processes through which public demands are generated, converted and implemented through decision-making into formal policy. Focus is upon the role of the administrator and institutional-organizational contexts in which the administrator functions.

5333 Public Policy Evaluation

(3-0) 3 hours credit.

The process, politics, and methodology of analyzing and evaluating public programs. Uses, limitations, and biases of particular methods such as cost-benefit analysis. Students are required to produce a report applying diagnostic techniques and value judgments to a particular program.

5353 Policy Issues in Public Services and Employment

(3-0) 3 hours credit.

Analyzes current issues of interest such as: 1) evaluation of public services; 2) productivity evaluation; 3) job incentives; 4) public awareness; 5) budget techniques; and 6) revenue generation. May be repeated when subject matter is different.

5363 Public Policy and Policy Implementation

(3-0) 3 hours credit.

Stresses the political environment of public administration. Relates importance of socio-economic structural and ideological variables on policy outcomes. Topics may include government fiscal crisis, energy, economic development and the erosion of government legitimacy.

5373 Resource Allocation for The Public Sector

(3-0) 3 hours credit.

Examines the politics and processes involved in making budgetary decisions. Analyzes the relationship of budgetary and fiscal theories to public management, budget outcomes, and how service distribution in a complex federal system is affected by budget decisions made by elected public officials.

5423 Employment and Training Programs

(3-0) 3 hours credit.

An analysis of public policies and programs designed to deal with the problems of unemployment, inflation, poverty and inequality.

5433 Affirmative Action Policies

(3-0) 3 hours credit.

The theoretical bases for affirmative action policies will be explored from economic, political, and legal perspectives. The operation of typical policies will be analyzed. Interaction of affirmative action policies with civil service rules, collective bargaining structures, and internal personnel systems are discussed.

5503 Introduction to Urban Planning

(3-0) 3 hours credit.

The course explores the development of methodologies and evolution of the city planning movement. An introduction to the major concepts and procedures used by city planners

with emphasis on the elements and technical functions of the urban general plan. (Formerly ENV 5503: credit cannot be earned for both ENV 5503 and PAD 5503.)

5543 Urban Housing

(3-0) 3 hours credit.

Analysis of housing problems, their causes, and attempted solutions. Specific attention is given to the dynamics of the urban housing market.

5563 Urban Planning Methods

(3-0) 3 hours credit.

This course focuses on the practical application of analytical tools and techniques available to the city planner in addressing social, economic, and environmental problems. Emphasis is placed on the comprehensive plan. Planning tools to be used are: shift-share, input-output, trade area, fiscal impact, and demographic analysis. (Formerly ENV 5553 and PAD 5553: credit can be earned only for ENV 5553 or PAD 5553 or PAD 5563.)

5623 Comparative Public Administration

(3-0) 3 hours credit.

Analysis of a variety of contemporary administrative systems in Western, Communist, and developing nations. Special attention to historical development, organization, functioning, and recruitment in selected bureaucracies. Examines relationships between bureaucracies and other components of the political system.

5633 International Organizations

(3-0) 3 hours credit.

General survey of the institutional, political, and administrative characteristics of international organizations with emphasis on the U.N. Topics may include international integration theory, the international civil service, and public entrepreneurship.

5643 International Security Policy and Administration

(3-0) 3 hours credit.

A comparative examination of governmental functions that provide for defense, internal security, economic and social administration. Topics may include comparative policy formulation; resources and defense postures; defense systems, arms transfers and control; nuclear environment; force in international law; diplomacy; threat perception and strategic surprise; intelligence agencies; deterrence.

5753 The Military and Political Systems

(3-0) 3 hours credit.

The history, organization and responsibilities of military organizations in various types of political systems will be examined. Special emphasis on the input and policy-making role of the military in selected countries.

5903 Quantitative Methods for Public Administration

(3-0) 3 hours credit. Prerequisite: STA 1064 or SSC 3003 or equivalent.

Quantitative aspects of analysis and decision making, emphasizing research design and use of inferential and descriptive statistics with computer applications. Univariate analysis through multivariate analysis is covered. Cost-benefit analysis, linear programming, and decision trees also may be considered.

6223 Legal Regulation of Urban Systems

(3-0) 3 hours credit. Prerequisite: PAD 5503 or consent of Instructor.

This course focuses on how the law affects municipal management and planning practice. Topics include legal research, real property law, municipal corporations, land use and land development regulation and municipal annexation.

6513 Communication Skills for Public Management

(2-2) 3 hours credit.

Offers the opportunity for students to be introduced to the use of oral, written, graphics, and other representational techniques as a means of expressing and conceptualizing ideas; (1) small group programming, (2) slide video photography as a device to portray situations, (3) writing, presenting, and producing a report.

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6533 Transportation Planning

(3-0) 3 hours credit.

The course will examine existing and future urban transportation systems and principles in terms of their impact on urban, human, and natural resources. (Formerly ENV 6533: Credit cannot be earned for both ENV 6533 and PAD 6533.)

6543 Urban Service Systems

(3-0) 3 hours credit.

Study of urban service systems (e.g., medical services, water/sewer systems, police systems, fire systems) as interrelated systems by analyzing their measures of effectiveness. The utilization of mathematical models for analyzing these functions is reviewed. Specific attention is given to spatial allocation, risk analysis, municipal deployment analysis, and multi-attribute utility techniques.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate 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 not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6963-6 Internship

3 or 6 hours credit.

An opportunity will be provided for the students to work in a setting which will permit them to apply the knowledge learned in the formal instruction part of the program. May be repeated for credit to a maximum of 6 hours.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

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

6983 Master's Thesis

3 hours credit. Prerequisites: Admission to candidacy and permission of the Graduate Advisor and thesis director.

Thesis research preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.

6993 Practicum in Public Administration

(3-0) 3 hours credit. Prerequisite: Approval of the Graduate Advisor of Record, the Division Director.

Applied research in a specific policy area involving issues in public administration. Students will be involved in planning and management studies under faculty supervision. May be repeated for credit, but not more than 6 hours will apply to the Master's degree.

COURSE DESCRIPTIONS CRIMINAL JUSTICE (CRJ)

5013 Crime and Justice: Theory and Policy

(3-0) 3 hours credit.

An examination of the phenomenon of crime, its impact on victims, social institutions and the criminal justice system. Particular attention will be given to the interactions between theories of crime, the processes for developing policy alternatives and implementation of justice delivery. (Formerly CRJ 5003: Credit cannot be earned for both CRJ 5003 and CRJ 5013.)

5423 Seminar in Correctional Administration

(3-0) 3 hours credit.

A study of correctional components of the criminal justice system including institutional and community based. Reviews impact of legal and social change on correctional agencies. Emphasis on planning and evaluation of innovative programs.

5753 Legal Dimensions of Criminal Justice

(3-0) 3 hours credit.

A review of recent and contemporary legal issues related to the administration of criminal justice. Examines legal parameters of the criminal justice system in terms of impact on various component parts.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate 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 not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

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

COURSE DESCRIPTIONS
GEOGRAPHY
(GRG)

5303 Economic Geography

(3-0) 3 hours credit.

Substantive and theoretical consideration of the economic implications of geography. Topics include the development of industrial patterns, subsistence patterns, transportation systems, and resource exploitation. Central place theory, Boserup's theory of agricultural growth, and other theoretical matters are considered.

5323 Seminar in Urban Geography

(3-0) 3 hours credit.

Advanced study of urban structure and urban dynamics viewed from a spatial perspective. Topics may include urbanization, housing and neighborhood space, intraurban migration, the location of economic activity in the city, and urban land use systems. May be repeated for credit when the topics vary.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

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

COURSE DESCRIPTIONS **POLITICAL SCIENCE** **(POL)**

5123 The Executive in American Government

(3-0) 3 hours credit.

A comparative examination of the ways in which different units of government carry out authoritative rules. Single, multiple, and bureaucratic executive institutions on all levels of American government will be examined using various modes of analysis.

5153 American Government and Politics

(3-0) 3 hours credit.

An examination of the major issues, problems and processes of American government and administration.

5303 Public Values and Public Management

(3-0) 3 hours credit.

An introduction to the historical background and contemporary practices, techniques, and theories of public management. Ideals and ideologies of public service; distinctive qualities of the public and for-profit sectors; responsiveness and accountability; interest groups and the economic environment of public management; ethics in the public service; future trends.

5343 Personnel Management in the Public Sector

(3-0) 3 hours credit.

The evolution of public personnel administration in the United States at the federal, state, and local levels. Problems of recruitment, in-service training, promotion, dismissal, employee production evaluation. Merit, civil service, career, and patronage systems. Unionization, collective bargaining, and strikes in the public sector.

5353 Theories of Public Bureaucracy

(3-0) 3 hours credit.

Students are offered the opportunity to examine some of the major theories of bureaucracy and their effect on the development of public bureaucracy in the United States. The relationship of major sociological and ethical theories to public bureaucracy will also be examined.

5503 Constitutional Law and Judicial Decision-Making

(3-0) 3 hours credit.

An advanced course in constitutional law and interpretation. Special emphasis is placed on written judicial decisions, the political environment of judicial decision-making, and the impact of constitutional policy upon society.

5513 Administrative Law

(3-0) 3 hours credit.

Students are provided the opportunity to examine administrative rules, regulations and procedures from a legal perspective. Topics may include the delegation of authority; administrative rule making, discretion and hearings; freedom of information; and judicial review of administrative rulings.

5623 Intergovernmental Relations in the United States

(3-0) 3 hours credit.

The administrative and political effects of the division of authority among coordinate units of government. Federal-state, state-local, local-federal, state-state, local-local, and governmental-nongovernmental relations will all be examined.

5703 American Foreign Policy

(3-0) 3 hours credit.

An intensive analysis of the policy formulation process and the substance of selected contemporary problems in foreign policy. Political and institutional factors affecting foreign policies will be stressed along with the analysis of policy options.

5713 Comparative Political Systems

(3-0) 3 hours credit.

Comparative analysis of institutions, processes and policy objectives in various Western, Communist and developing political systems.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate 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 not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6971-3 Special Problems

1 to 3 hours credit. Prerequisite: Consent of instructor.

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

COURSE DESCRIPTIONS**SOCIOLOGY
(SOC)****5003 Major Sociological Theories**

(3-0) 3 hours credit.

Classical and contemporary sociological theories. The course focuses on major theorists of the nineteenth and twentieth centuries, including Marx, Weber, Durkheim, Mills, Goffman, and Mead. The course stresses the relevance of sociological theory for understanding past and present social issues.

5103 Socio-Psychological Dimensions of Work

(3-0) 3 hours credit.

Problems faced by members of the labor force in industrialized societies. The accompanying stresses that specialization and obsolescence place on the individual. The impact of work on labor force attitudes and performances. Labor force activity is examined against different cultural backgrounds. Programs to create a better work climate are examined.

5113 Seminar in Urban Social Stratification

(3-0) 3 hours credit.

Sociological theories of social organization in urban contexts and recent research in such matters as inter-ethnic relations and subsystems of stratification.

5163 Women in Business and Professional Careers

(3-0) 3 hours credit.

Study of female roles, achievement motivations, and career choices and opportunities. Historical background of female labor force participation and the attitudes and legislation which have affected this participation. Impact on both sexes of working for and with women.

5183 Community Organizations and Public Policy

(3-0) 3 hours credit.

Examination of the impacts on and reactions to public policies by neighborhoods and communities. The course will focus on how groups mobilize support, set goals and develop strategies in their attempts to influence governmental decisions.

6951-3 Independent Study

1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate 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 not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

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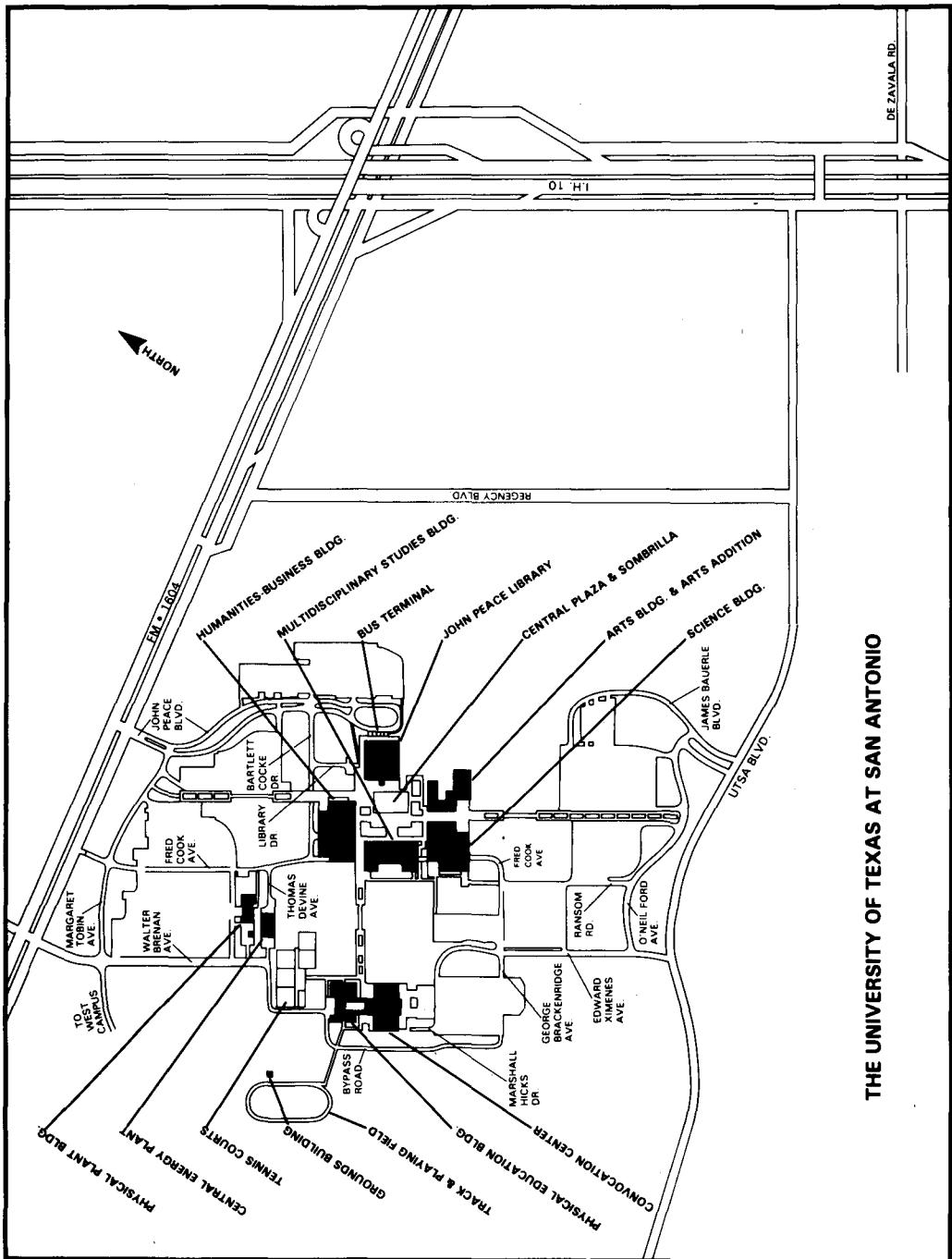
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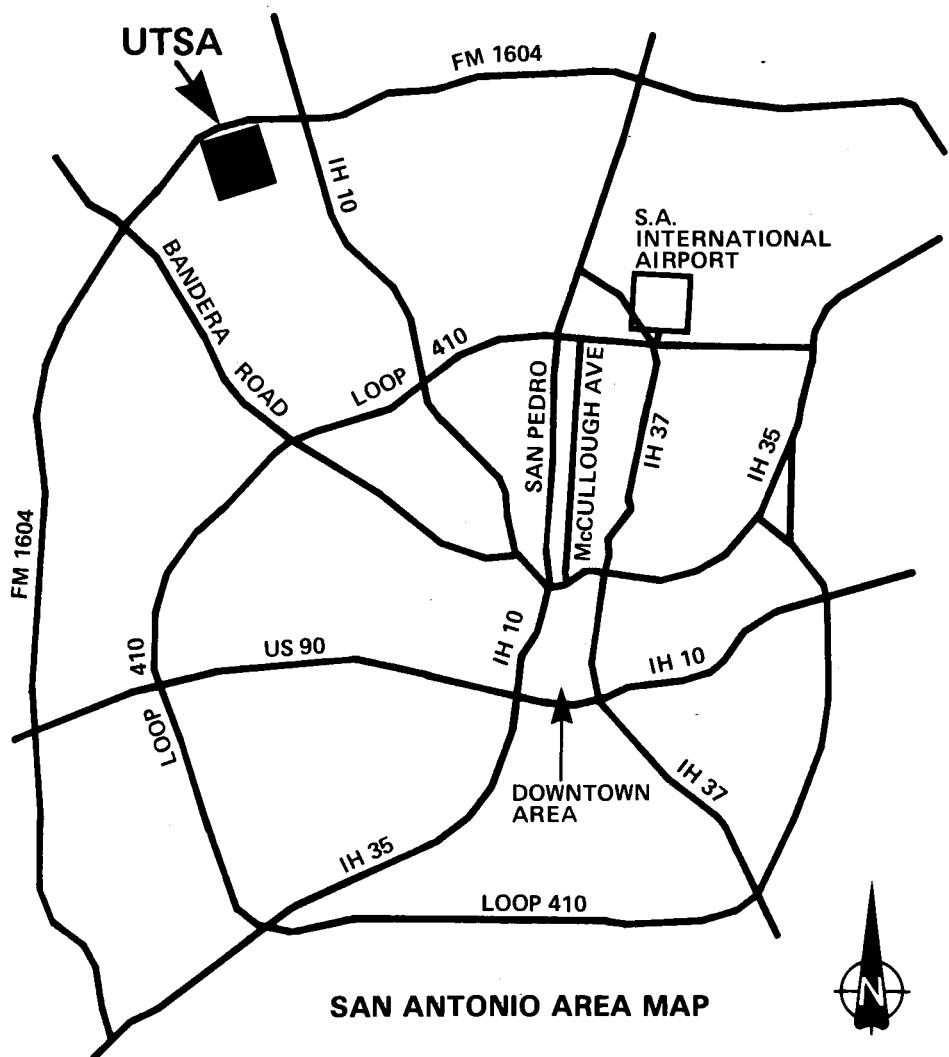
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THE UNIVERSITY OF TEXAS AT SAN ANTONIO



INFORMATION DIRECTORY

Requests for information should be directed to the offices shown below. The University's address is: The University of Texas at San Antonio, San Antonio, Texas 78285. The main telephone number of UT San Antonio is (512) 691-4011.

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