The University of Texas at San Antonio reserves the right to withdraw courses at any time, change fees, rules, calendar, curriculum, degree programs, degree requirements, graduation procedures, and any other requirement affecting students. Changes will become effective whenever the appropriate authorities so determine and may apply to both prospective students and those already enrolled. The provisions of this catalog do not constitute a contract, express or implied, between any applicant, student, or faculty member and The University of Texas System and The University of Texas at San Antonio.
CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. CALENDAR</td>
<td>4</td>
</tr>
<tr>
<td>II. GENERAL INFORMATION</td>
<td>12</td>
</tr>
<tr>
<td>III. TUITION, FEES, CHARGES, PENALTIES, AND DEPOSITS</td>
<td>30</td>
</tr>
<tr>
<td>IV. INSTITUTIONAL POLICIES CONCERNING STUDENTS</td>
<td>42</td>
</tr>
<tr>
<td>V. ADMISSION REQUIREMENTS</td>
<td>48</td>
</tr>
<tr>
<td>VI. GENERAL ACADEMIC REGULATIONS</td>
<td>54</td>
</tr>
<tr>
<td>VII. MASTER'S DEGREE REGULATIONS</td>
<td>64</td>
</tr>
<tr>
<td>VIII. SUMMARY OF GRADUATE DEGREE PROGRAMS AND SUPPORT AREAS FOR 1984-86</td>
<td>70</td>
</tr>
<tr>
<td>IX. GRADUATE DEGREE PROGRAMS AND SUPPORT COURSES</td>
<td>74</td>
</tr>
<tr>
<td>INDEX</td>
<td>176</td>
</tr>
<tr>
<td>MAPS</td>
<td>182</td>
</tr>
<tr>
<td>INFORMATION DIRECTORY</td>
<td>184</td>
</tr>
</tbody>
</table>

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
GRADUATE
FALL SEMESTER, 1984

August 1
Wednesday. Deadline for applying for admission and providing supporting documents for Fall 1984.

August 21-23
Tuesday-Thursday. Registration, Orientation, Advisement.¹

August 27
Monday. Classes begin. First day of late registration.

August 31
Friday. Last day to add a class without special permission. Last day of late registration. Last day to drop a course or withdraw without a record of the enrollment. Last day to withdraw and receive an 80% refund of tuition and fees.

September 3
Monday. Holiday.

September 10
Monday. Last day to withdraw and receive a 70% refund of tuition and fees.

September 12
Wednesday. Last day to add a class. Census date. Last day to drop a course and receive a refund.

September 17
Monday. Last day to withdraw and receive a 50% refund of tuition and fees.

September 24
Monday. Last day to withdraw and receive a 25% refund of tuition and fees.

October 1
Monday. Deadline for Fall 1984 degree candidates to apply for graduation.

October 15

October 26
Friday. Last day to drop an individual course. An automatic grade of "W" will be assigned. Deadline for submission of preliminary draft of thesis.

November 20
Tuesday. Deadline for submission of final copy of thesis.

November 22-24
Thursday-Saturday. Thanksgiving Holidays.

December 3
Monday. Last day to withdraw from The University.

December 5
Wednesday. Deadline to file approved thesis with Dean's Office.

December 10-15
Monday-Saturday. Final Examinations.

December 15
Saturday. Semester closes.

SPRING SEMESTER, 1985

December 3

January 9-10
Wednesday-Thursday. Registration, Orientation, Advisement.¹

January 14
Monday. Classes begin. First day of late registration.

January 18
Friday. Last day to add a class without special permission. Last day of late registration. Last day to drop a

¹Some of the dates in the catalog calendar may be subject to change. A more detailed calendar will be published each semester in the Schedule of Classes issued by the Registrar.
course or withdraw without a record of enrollment. Last day to withdraw and receive 80% refund of tuition and fees.

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>January 25</td>
<td>Friday. Last day to withdraw and receive 70% refund of tuition and fees.</td>
</tr>
<tr>
<td>January 29</td>
<td>Tuesday. Last day to add a class. Census date. Last day to drop a course and receive a refund.</td>
</tr>
<tr>
<td>February 1</td>
<td>Friday. Last day to withdraw and receive a 50% refund of tuition and fees.</td>
</tr>
<tr>
<td>February 8</td>
<td>Friday. Last day to withdraw and receive a 25% refund of tuition and fees.</td>
</tr>
<tr>
<td>February 15</td>
<td>Friday. Deadline for Spring 1985 degree candidates to apply for graduation.</td>
</tr>
<tr>
<td>March 1</td>
<td>Friday. Foreign student admission application deadline for Summer 1985.</td>
</tr>
<tr>
<td>March 15</td>
<td>Friday. Last day to drop an individual course. An automatic grade of &quot;W&quot; will be assigned.</td>
</tr>
<tr>
<td>March 18-23</td>
<td>Monday-Saturday. Spring vacation.</td>
</tr>
<tr>
<td>April 16</td>
<td>Tuesday. Deadline for submission of final copy of thesis.</td>
</tr>
<tr>
<td>April 29</td>
<td>Monday. Last day to withdraw from The University.</td>
</tr>
<tr>
<td>May 1</td>
<td>Wednesday. Deadline to file approved thesis with Dean's Office.</td>
</tr>
<tr>
<td>May 6-11</td>
<td>Monday-Saturday. Final Examinations.</td>
</tr>
<tr>
<td>May 11</td>
<td>Saturday. Semester closes.</td>
</tr>
<tr>
<td>May 12</td>
<td>Sunday. Commencement.</td>
</tr>
</tbody>
</table>

**SUMMER SESSION, 1985**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>May 1</td>
<td>Wednesday. Deadline for applying for admission and providing supporting documents for Summer Session 1985.</td>
</tr>
<tr>
<td>May 30</td>
<td>Thursday. Registration, Orientation, Advisement for all three terms.²</td>
</tr>
<tr>
<td>June 3</td>
<td>Monday. Classes begin for first five-week or ten-week terms. First day of Late Registration. Foreign student admission application deadline for Fall 1985.</td>
</tr>
<tr>
<td>June 4</td>
<td>Tuesday. Last day to drop a course in the first five-week or ten-week term without a grade. Last day for late registration. Last day to add a course in the first five-week or ten-week term without special permission.</td>
</tr>
<tr>
<td>June 5</td>
<td>Wednesday. Last day to withdraw from courses in the first five-week and ten-week terms and receive an 80% refund of tuition and fees.</td>
</tr>
</tbody>
</table>

²Some of the dates in the catalog calendar may be subject to change. A more detailed calendar will be published each semester in the Schedule of Classes issued by the Registrar.
June 6  Thursday. Last day to add a class in the first five-week or ten-week terms. Census date for the first five-week and ten-week terms. Last day to drop a course and receive a refund.

June 10  Monday. Last day for students enrolled in first five-week or ten-week terms to withdraw and receive a 50% refund of tuition and fees.

June 19  Wednesday. Deadline for filing original approved thesis with Dean's Office for students registered in thesis during the first five-week term.

June 21  Friday. Last day to drop an individual course in the first five-week or ten-week terms. An automatic grade of "W" will be assigned.

July 1  Monday. Last day to withdraw from The University for the first five-week term.

July 2-3  Tuesday-Wednesday. Final examinations for courses in the first five-week term.

July 3  Wednesday. Close of first five-week term.

July 8  Monday. Registration for courses in second five-week term.

July 9  Tuesday. Classes begin for second five-week term. First day of Late Registration.

July 10  Wednesday. Last day to drop a course in the second five-week term without a grade. Last day for late registration and to add a course in the second five-week term without special permission.

July 11  Thursday. Last day to withdraw from courses in the second five-week term and receive an 80% refund of tuition and fees.

July 12  Friday. Last day to add a class in the second five-week term. Census date. Last day to drop a course and receive a refund.

July 15  Monday. Last day for all Summer 85 degree candidates to apply for graduation.

July 16  Tuesday. Last day to withdraw from courses in the second five-week term and receive a 50% refund of tuition and fees.

July 30  Tuesday. Last day to drop an individual course in the second five-week term. An automatic grade "W" will be assigned. Deadline for filing original approved thesis with Dean's Office for students registered in thesis during the ten-week and second five-week term.

August 7  Wednesday. Last day to withdraw from The University for the ten-week or second five-week term.
August 12-13  Monday-Tuesday. Final examinations for courses in the ten-week and second five-week terms.

FALL SEMESTER, 1985

August 1  Thursday. Deadline for applying for admission and providing supporting documents for Fall 1985.
August 21-22  Wednesday-Thursday. Registration, Orientation, Advisement.3
August 26  Monday. Classes begin. First day of late registration.
August 30  Friday. Last day to add a class without special permission. Last day of late registration. Last day to drop a course or withdraw without a record of the enrollment. Last day to withdraw and receive an 80% refund of tuition and fees.

September 2  Monday. Holiday.
September 9  Monday. Last day to withdraw and receive a 70% refund of tuition and fees.
September 11  Wednesday. Last day to add a class. Census date. Last day to drop a course and receive a refund.
September 16  Monday. Last day to withdraw and receive a 50% refund of tuition and fees.
September 23  Monday. Last day to withdraw and receive a 25% refund of tuition and fees.
October 1  Tuesday. Deadline for Fall 1985 degree candidates to apply for graduation.
October 15  Tuesday. Foreign student admission application deadline for Spring 1986.
October 25  Friday. Last day to drop an individual course. An automatic grade of "W" will be assigned. Deadline for submission of preliminary draft of thesis.
November 19  Tuesday. Deadline for submission of final copy of thesis.
November 28-30  Thursday-Saturday. Thanksgiving Holidays.
December 2  Monday. Last day to withdraw from The University.
December 4  Wednesday. Deadline to file approved thesis with Dean's Office.
December 9-14  Monday-Saturday. Final Examinations.
December 14  Saturday. Semester closes.

SPRING SEMESTER, 1986

January 15-16  Wednesday-Thursday. Registration, Orientation, Advisement.3

3Some of the dates in the catalog calendar may be subject to change. A more detailed calendar will be published each semester in the Schedule of Classes issued by the Registrar.
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>January 20</td>
<td>Monday. Classes begin. First day of late registration.</td>
</tr>
<tr>
<td>January 24</td>
<td>Monday. Classes begin. First day of late registration.</td>
</tr>
<tr>
<td>January 24</td>
<td>First day of late registration.</td>
</tr>
<tr>
<td>January 24</td>
<td>Last day to add a class without special permission.</td>
</tr>
<tr>
<td>January 24</td>
<td>Last day to drop a course or withdraw without a record of the enrollment.</td>
</tr>
<tr>
<td>January 24</td>
<td>Last day to withdraw and receive an 80% refund of tuition and fees.</td>
</tr>
<tr>
<td>January 31</td>
<td>Friday. Last day to withdraw and receive a 70% refund of tuition and fees.</td>
</tr>
<tr>
<td>February 4</td>
<td>Tuesday. Last day to add a class. Census date.</td>
</tr>
<tr>
<td>February 4</td>
<td>Last day to drop a course and receive a refund.</td>
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<td>February 7</td>
<td>Friday. Last day to withdraw and receive a 50% refund of tuition and fees.</td>
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<td>February 14</td>
<td>Friday. Last day to withdraw and receive a 25% refund of tuition and fees.</td>
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<tr>
<td>February 17</td>
<td>Monday. Deadline for Spring 1986 degree candidates to apply for graduation.</td>
</tr>
<tr>
<td>March 3</td>
<td>Monday. Foreign student admission application deadline for Summer 1986.</td>
</tr>
<tr>
<td>March 21</td>
<td>Friday. Last day to drop an individual course. An automatic grade of &quot;W&quot; will be assigned.</td>
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<td>March 24-29</td>
<td>Monday-Saturday. Spring vacation.</td>
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<td>March 31</td>
<td>Monday. Deadline for submission of preliminary draft of thesis.</td>
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<td>April 22</td>
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<tr>
<td>May 5</td>
<td>Monday. Last day to withdraw from The University.</td>
</tr>
<tr>
<td>May 7</td>
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</tr>
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<td>May 12-17</td>
<td>Monday-Saturday. Final Examinations.</td>
</tr>
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<td>May 17</td>
<td>Saturday. Semester closes.</td>
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**SUMMER SESSION, 1986**

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<tr>
<td>June 5</td>
<td>Thursday. Last day to add a class in the first five-week or ten-week terms. Census date for the first five-week and ten-week terms. Last day to drop a course and receive a refund.</td>
</tr>
<tr>
<td>June 9</td>
<td>Monday. Last day for students enrolled in first five-week or ten-week terms to withdraw and receive a 50% refund of tuition and fees.</td>
</tr>
<tr>
<td>June 19</td>
<td>Thursday. Deadline for filing original approved thesis with Dean's Office for students registered in thesis during the first five-week term.</td>
</tr>
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<td>June 20</td>
<td>Friday. Last day to drop an individual course in the first five-week or ten-week terms. An automatic grade of &quot;W&quot; will be assigned.</td>
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<td>July 2-3</td>
<td>Wednesday-Thursday. Final examinations for courses in first five-week term.</td>
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<td>July 3</td>
<td>Thursday. Close of first five-week term.</td>
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<tr>
<td>July 7</td>
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<td>Wednesday. Last day to drop a course in the second five-week term without a grade. Last day for late registration and to add a course in the second five-week term without special permission.</td>
</tr>
<tr>
<td>July 10</td>
<td>Thursday. Last day to withdraw from courses in the second five-week term and receive an 80% refund of tuition and fees.</td>
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<td>July 11</td>
<td>Friday. Last day to add a class in the second five-week term. Census date. Last day to drop a course and receive a refund.</td>
</tr>
<tr>
<td>July 15</td>
<td>Tuesday. Last day to withdraw from courses in the second five-week term and receive a 50% refund of tuition and fees. Last day for Summer 86 degree candidates to apply for graduation.</td>
</tr>
<tr>
<td>July 29</td>
<td>Tuesday. Last day to drop an individual course in the second five-week term. An automatic grade of &quot;W&quot; will be assigned. Deadline for filing original approved thesis with Dean's Office for students registered in thesis during the ten-week and second five-week term.</td>
</tr>
<tr>
<td>August 6</td>
<td>Wednesday. Last day to withdraw from The University for the ten-week or second five-week terms.</td>
</tr>
<tr>
<td>August 11-12</td>
<td>Monday-Tuesday. Final examinations for courses in the ten-week and second five-week terms.</td>
</tr>
</tbody>
</table>
II. GENERAL INFORMATION
THE UNIVERSITY OF TEXAS SYSTEM

BOARD OF REGENTS

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Jon P. Newton, *Chairman*
Robert B. Baldwin III, *Vice-Chairman*
Janey Slaughter Briscoe (Mrs. Dolph), *Vice-Chairman*
Arthur H. Dilly, *Executive Secretary*

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James L. Powell .................................. Fort McKavett
Howard N. Richards ................................. Austin

TERMS EXPIRE FEBRUARY 1, 1987

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Beryl Buckley Milburn (Mrs. Malcolm) ........................ Austin
Tom B. Rhodes ........................................ Dallas

TERMS EXPIRE FEBRUARY 1, 1989

Robert B. Baldwin III .................................. Austin
Jess Hay ................................................................ Dallas
Mario Yzaguirre ........................................ Brownsville

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Rudolph Gomez ........................................... Vice President for Administration
Gary L. Hammon ........................................ Vice President for Business Affairs

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E. D. Hodo ............................ Dean, College of Business
Rhoderick E. Key ......................... Dean, College of Fine Arts and Humanities
Dora G. Hauser .................................... Dean of Students
<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
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</thead>
<tbody>
<tr>
<td>Anthony J. Arabia</td>
<td>Director of Media Resources</td>
</tr>
<tr>
<td>Vincent L. Avallone</td>
<td>Director of Career Planning and Placement Center</td>
</tr>
<tr>
<td>Roger J. Bilow</td>
<td>Assistant Director of Admissions</td>
</tr>
<tr>
<td>Jane S. Bonham</td>
<td>Director of Accounting</td>
</tr>
<tr>
<td>John H. Brown</td>
<td>Director of Admissions and Registrar</td>
</tr>
<tr>
<td>Manuel C. Chavez</td>
<td>Chief of Police</td>
</tr>
<tr>
<td>Rudy A. Davaios</td>
<td>Director of Athletics</td>
</tr>
<tr>
<td>Ernest DeWinne</td>
<td>Business Manager</td>
</tr>
<tr>
<td>James A. Forester</td>
<td>Director of Student Services</td>
</tr>
<tr>
<td>Samuel M. Gonzales</td>
<td>Director of Job Location and Development</td>
</tr>
<tr>
<td>Patricia A. Graham</td>
<td>Associate Dean of Students</td>
</tr>
<tr>
<td>Frederick C. Hample</td>
<td>Associate Registrar</td>
</tr>
<tr>
<td>Ronald D. Hedrick</td>
<td>Director of the Counseling Center</td>
</tr>
<tr>
<td>Daniel O. Hogenauer</td>
<td>Assistant Dean, College of Sciences and Mathematics</td>
</tr>
<tr>
<td>Martha L. Horsman</td>
<td>Business Manager</td>
</tr>
<tr>
<td>Sandra Jordan</td>
<td>Director of News and Information</td>
</tr>
<tr>
<td>Michael F. Kelly</td>
<td>Director of Libraries</td>
</tr>
<tr>
<td>George E. Mangrem</td>
<td>Director of Physical Plant</td>
</tr>
<tr>
<td>John W. Massey</td>
<td>Personnel Director</td>
</tr>
<tr>
<td>Richard S. Moore</td>
<td>Director of General Services</td>
</tr>
<tr>
<td>Betty Murray</td>
<td>Director of Development</td>
</tr>
<tr>
<td>Larry E. Penley</td>
<td>Associate Dean, College of Business</td>
</tr>
<tr>
<td>B. Michael Ramsey</td>
<td>Director of Student Financial Aid</td>
</tr>
<tr>
<td>Joel G. Saegert</td>
<td>Assistant Vice President for Academic Affairs</td>
</tr>
<tr>
<td>Lynwood C. Siebold</td>
<td>Director of Contracts and Grants</td>
</tr>
<tr>
<td>Cynthia Smith</td>
<td>Director, Internal Audit</td>
</tr>
<tr>
<td>William E. Stern</td>
<td>Director of Budget and Planning</td>
</tr>
<tr>
<td>John A. Stoier</td>
<td>Assistant Dean, College of Fine Arts and Humanities</td>
</tr>
<tr>
<td>Katherine P. Strickland</td>
<td>Director, Teacher Placement Service and Certification</td>
</tr>
<tr>
<td>Berry Sutherland</td>
<td>Associate Dean, College of Social and Behavioral Sciences</td>
</tr>
<tr>
<td>C. Powell Trott</td>
<td>Director of Purchasing</td>
</tr>
<tr>
<td>Rebecca B. Underwood</td>
<td>Assistant Director of Admissions</td>
</tr>
<tr>
<td>Linda J. Whitson</td>
<td>Assistant to the President</td>
</tr>
<tr>
<td>Robert F. Williams</td>
<td>Radiation Safety Officer</td>
</tr>
</tbody>
</table>
DIVISION DIRECTORS

COLLEGE OF BUSINESS
James F. Gaertner .................. Division of Accounting and Business Data Systems
Lila J. Flory-Truett ............. Division of Economics and Finance
William D. Litzinger ............. Division of Management and Marketing

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Frank Pino, Jr. ..................... Division of Foreign Languages
Clarence J. Stuessy ............... Division of Music

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Robert K. Smith ..................... Division of Earth and Physical Sciences
Marlo J. Gonzalez, Jr. ............. Division of Engineering
Stanley G. Wayment ............... Division of Mathematics, Computer Science, and Systems Design

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Joseph Michel ..................... Acting, Division of Bicultural-Bilingual Studies
Elwood B. Traylor ................ Division of Education
Thomas J. Bellows ................ Division of Social and Policy Sciences
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COLLEGE OF BUSINESS

Division of Accounting and Business Data Systems

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James F. Gaertner, Professor, B.B.A., B.M.A., Sam Houston State University; Ph.D., Texas A&M University
Leslie L. McNelis, Professor, B.B.A., University of Oklahoma; M.B.A., University of Tulsa; Ph.D., University of Oklahoma
E. Lou Curry, Associate Professor, B.S., West Virginia University; J.D., St. Mary's University; L.L.M., Emory University
Robert V. Egenolf, Associate Professor, B.S., Indiana University; M.B.A., Southwest Texas State University; Ph.D., Texas A&M University
Martha A. Fasci, Associate Professor, B.S., Our Lady of the Lake University; M.B.A., North Texas State University; Ph.D., University of Texas at Austin
Susan L. Nordhauser, Associate Professor, B.A., Cornell University; M.S., Purdue University; Ph.D., University of Texas at Austin
James U. Ross, Associate Professor, B.A., J.D., University of Texas at Austin
John E. Delaney, Assistant Professor, B.S., Northern Illinois University; M.A.S., University of Illinois at Urbana
Fred Nordhauser, Assistant Professor, B.S., Cornell University; M.S., Purdue University
Howard G. Smith, Assistant Professor, B.A., S.U.N.Y., College at Cortland; B.A., M.B.A., California State University, Fullerton

Division of Economics and Finance

Lila J. Floro-Truett, Professor, B.A., Kansas State University; M.A., Ph.D., University of Iowa
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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.

UTSA grew rapidly in its early years from 671 graduate students in June of 1973 to 12,070 undergraduate and graduate students in September of 1983. The University has awarded 5,975 Bachelor's degrees and 3,100 Master's degrees as of August 1983. 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.

PURPOSE AND PHILOSOPHY

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

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

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

**ORGANIZATION**

The University of Texas at San Antonio is a component institution of The University of Texas System. Governance of The University is vested in the nine-member Board of Regents of The University of Texas System whose members are appointed biennially by the Governor, with the advice and consent of the Senate, for six-year staggered terms. The Board of Regents delegates administrative authority to the 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. The 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 1983 the collections of the library include 300,000 cataloged volumes; 110,000 federal, state and local documents; and 265,000 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.

COMPUTING RESOURCES
Presently, computing services at The University are provided by an IBM 370/158, an IBM 4341, and a DEC VAX 11/780. These systems support administrative and academic activity with both on-line and batch capability. Approximately 200 full-screen terminals

\[\text{Additional information on the John Peace Library and on its borrowing regulations may be obtained in the library.}\]
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-PLETE and the database 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).

THE CENTER FOR STUDIES IN BUSINESS, ECONOMICS, AND HUMAN RESOURCES

The Center for Studies in Business, Economics, and Human Resources is the research center of the College of Business. The major objective of the Center 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 Center is an integral part of the College of Business, it interacts with the faculty of the other Colleges to provide an interdisciplinary approach to research and business education.

The focus of activity at the Center is on application of theories and research techniques to produce useful information for public and private decision making. Specialized data files are maintained on a continuing basis, while a research library and information systems guide interested users to sources of information. The knowledge and experience of The University's faculty are utilized to solve specific problems in the broad categories of management, finance, administration, planning, economic feasibility, production, economic impact, anti-trust laws and procedures, international trade, environmental protection, and manpower utilization.

CENTER FOR APPLIED RESEARCH AND TECHNOLOGY

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

CART serves as a focal point for science and engineering research activities at The University by providing guidance and programs for contract and grant management and by furnishing analytical services and research support for faculty and students. Exceptional students have an opportunity to gain valuable work experience through CART's technical services and research programs.

The CART staff includes faculty, research associates, students, and technical and support personnel.

CART seeks to support the individual involved in research, as well as to nourish team research for projects requiring the strength of individuals drawn from the various disciplines. Individual research projects are active in all areas of the College, ranging from biology, chemistry, computer science and systems design, engineering to geology. Team research efforts have been conducted in diverse areas involving pharmalogical chemistry, health related issues, and energy and environmental studies.
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 125 volumes in the Center's four publication series: Archaeological Survey Reports, Regional Studies, Special Reports, and Guidebooks in Archaeology.

The Center has administered more than 270 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, and four seasons of excavation at the Maya site of Colha in Belize, Central America. 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.

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.

RESEARCH CENTER FOR THE ARTS AND HUMANITIES

The Research Center for the Arts and Humanities is located in the College of Fine Arts and Humanities. The Center's 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 Center 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 Center 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.
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 CAFETERIA

The University Cafeteria, located in the heart of the campus on the first level of the John Peace Library, provides food and beverage service to the university community. Owned and operated by UT San Antonio, the Cafeteria is open week days to provide breakfast, lunch, dinner and snacks. It features daily specials in all areas including breakfasts, hot and cold sandwiches, complete lunches and dinners and salad bar. Catering for both large and small groups is available through the foodservice office. For a coffee break or quick lunch, the Cafeteria operates a sandwich shop, The Subway, located on the first level of the Humanities-Business Building.

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, graphics arts production including typesetting and original art work, photographic services, off-air television and audio recording, and public address sound support.
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 their tuition, fees, and deposits have been paid.¹ Payment may be made by personal check for the exact amount due, provided the bank transit number is encoded thereon in compliance with revised Federal Reserve Bank regulations. Checks for larger amounts, if the difference is to be paid in cash to the students, cannot be accepted. In paying by check, students should exercise care. A bad check, whether given by mistake or otherwise, unless it is the admitted error of the bank concerned, is likely to delay actual payment and thus result in a penalty as outlined in the section on Bad Check Charges.

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 below:

TUITION EACH SEMESTER

<table>
<thead>
<tr>
<th>Number of Hours Taken¹</th>
<th>RESIDENTS OF TEXAS</th>
<th>NONRESIDENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>U.S. Citizens</td>
<td>Foreign Students</td>
</tr>
<tr>
<td>1</td>
<td>50.00</td>
<td>40.00</td>
</tr>
<tr>
<td>2</td>
<td>50.00</td>
<td>80.00</td>
</tr>
<tr>
<td>3</td>
<td>50.00</td>
<td>120.00</td>
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<tr>
<td>4</td>
<td>50.00</td>
<td>160.00</td>
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<tr>
<td>5</td>
<td>50.00</td>
<td>200.00</td>
</tr>
<tr>
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<td>240.00</td>
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<tr>
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<td>50.00</td>
<td>280.00</td>
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<tr>
<td>8</td>
<td>50.00</td>
<td>320.00</td>
</tr>
<tr>
<td>9</td>
<td>50.00</td>
<td>360.00</td>
</tr>
<tr>
<td>10</td>
<td>50.00</td>
<td>400.00</td>
</tr>
<tr>
<td>11</td>
<td>50.00</td>
<td>440.00</td>
</tr>
<tr>
<td>12</td>
<td>50.00</td>
<td>480.00</td>
</tr>
</tbody>
</table>

¹All tuition charges and fees are subject to change without notice
²See the Exemption from Tuition and Fees section 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 $50.00 for nonresidents (U.S. citizens and foreign students) in those instances where such credit is the final credit-hour requirement for the degree in progress. For residence regulations, consult the Director of Admissions and Registrar.
## Tuition, Fees, Charges, Penalties and Deposits

### Tuition Summer Session

<table>
<thead>
<tr>
<th>Number of Hours Taken</th>
<th>Residents of Texas</th>
<th>Nonresidents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Each Summer Term</td>
<td>Entire Summer Session</td>
</tr>
<tr>
<td>1</td>
<td>25.00</td>
<td>50.00</td>
</tr>
<tr>
<td>2</td>
<td>25.00</td>
<td>50.00</td>
</tr>
<tr>
<td>3</td>
<td>25.00</td>
<td>50.00</td>
</tr>
<tr>
<td>4</td>
<td>25.00</td>
<td>50.00</td>
</tr>
<tr>
<td>5</td>
<td>25.00</td>
<td>50.00</td>
</tr>
<tr>
<td>6</td>
<td>25.00</td>
<td>50.00</td>
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<tr>
<td>7</td>
<td>28.00</td>
<td>50.00</td>
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<td>8</td>
<td>32.00</td>
<td>50.00</td>
</tr>
<tr>
<td>9</td>
<td>36.00</td>
<td>50.00</td>
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<tr>
<td>10</td>
<td>40.00</td>
<td>50.00</td>
</tr>
<tr>
<td>11</td>
<td>44.00</td>
<td>50.00</td>
</tr>
<tr>
<td>12</td>
<td>48.00</td>
<td>50.00</td>
</tr>
<tr>
<td>13</td>
<td>52.00</td>
<td>52.00</td>
</tr>
<tr>
<td>14</td>
<td>56.00</td>
<td>56.00</td>
</tr>
</tbody>
</table>

Each Additional Hour 4.00 4.00 40.00 40.00

### 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. If the applicant has any

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*Tuition for resident or nonresident students registered for thesis or dissertation credit only is $12.00 for residents of Texas and $50.00 for nonresidents (U.S. citizens and foreign students) in those instances where such credit is the final credit-hour requirement for the degree in progress.

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

**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 residence classification. In addition, if a student has obtained residence classification by virtue of deliberate concealment or misrepresentation of facts, he/she may be subject to disciplinary action.

**GENERAL FEE AND STUDENT SERVICES FEE**

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

<table>
<thead>
<tr>
<th>SEMESTER HOURS</th>
<th>GENERAL FEE(^a)</th>
<th>STUDENT SERVICES FEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6.00</td>
<td>6.50</td>
</tr>
<tr>
<td>2</td>
<td>12.00</td>
<td>13.00</td>
</tr>
<tr>
<td>3</td>
<td>18.00</td>
<td>19.50</td>
</tr>
<tr>
<td>4</td>
<td>24.00</td>
<td>26.00</td>
</tr>
<tr>
<td>5</td>
<td>30.00</td>
<td>32.50</td>
</tr>
<tr>
<td>6</td>
<td>36.00</td>
<td>39.00</td>
</tr>
<tr>
<td>7</td>
<td>42.00</td>
<td>45.50</td>
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<tr>
<td>8</td>
<td>48.00</td>
<td>52.00</td>
</tr>
<tr>
<td>9</td>
<td>54.00</td>
<td>58.50</td>
</tr>
<tr>
<td>10</td>
<td>60.00</td>
<td>65.00</td>
</tr>
<tr>
<td>11</td>
<td>66.00</td>
<td>71.50</td>
</tr>
<tr>
<td>12</td>
<td>72.00</td>
<td>78.00</td>
</tr>
<tr>
<td>13</td>
<td>78.00</td>
<td>78.00</td>
</tr>
<tr>
<td>14</td>
<td>84.00</td>
<td>78.00</td>
</tr>
<tr>
<td>15</td>
<td>90.00</td>
<td>78.00</td>
</tr>
<tr>
<td>Each Additional Hour</td>
<td>6.00</td>
<td>-0-</td>
</tr>
</tbody>
</table>

**UNIVERSITY CENTER FEE**

University Center Fees are as follows:
$15.00 per student, each regular session; $7.50 each summer session.

**DEGREE APPLICATION FEE**

An $8.00 application fee is required of candidates for a degree. Application for a degree must be made at the Registrar's Office and the fee paid no later than the end of the add/drop period of the term. (Fall, Spring, or Second Summer Term) in which the student plans to graduate. This fee must be paid only once for the same degree. The fee

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\(^a\)See the Exemption from Tuition and Fees in this section of the catalog.

\(^b\)The General Fee is authorized by statute for use and availability of University buildings and facilities.
is not refundable. Cap and gown rental is not provided as part of the degree application fee.
Veterans attending The University under an exemption are not exempt from payment of this fee.

THEESIS 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.

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

LABORATORY FEE
In certain courses a laboratory fee, not to exceed the actual cost of materials and supplies and not less than $2.00 nor more than $8.00, may be charged. When a laboratory fee is charged, the schedule of classes indicates the associated fee.

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.

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*See the Exemption from Tuition and Fees in this section of the catalog.
*Borrowing and fine regulations of the John Peace Library are available in the Library.
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 auditing fee is not refundable.

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

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

PARKING FEES

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:

<table>
<thead>
<tr>
<th>Class</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>$15.00 General parking permit, if purchased during the fall semester</td>
</tr>
<tr>
<td></td>
<td>$7.00 General parking permit, if purchased during the spring semester</td>
</tr>
<tr>
<td></td>
<td>$2.00 General parking permit, if purchased during the summer session</td>
</tr>
<tr>
<td>C</td>
<td>$8.00 Motorcycle, motor scooter, motorbike parking permit, if purchased during the fall semester</td>
</tr>
<tr>
<td></td>
<td>$4.00 Motorcycle, motor scooter, motorbike parking permit, if purchased during the spring semester</td>
</tr>
<tr>
<td></td>
<td>$2.00 Motorcycle, motor scooter, motorbike parking permit, if purchased during the summer session</td>
</tr>
<tr>
<td></td>
<td>$2.00 Bicycle parking permit, if purchased any time during the academic year</td>
</tr>
<tr>
<td>M</td>
<td>$10.00 Mini-car if purchased during the fall semester</td>
</tr>
<tr>
<td></td>
<td>$5.00 Mini-car if purchased during the spring semester</td>
</tr>
<tr>
<td></td>
<td>$2.00 Mini-car if purchased during the summer semester</td>
</tr>
</tbody>
</table>

Handicapped parking permits are available upon presentation of acceptable medical proof that the operator or regularly transported student is currently disabled. Application for a Handicapped parking permit must be made in the University Police Traffic office. Disabled veterans with 70% 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.
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.

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>ANNUAL FEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Full-time student spouse</td>
<td>$6.00 per semester or entire summer</td>
</tr>
<tr>
<td>2. Full-time student child</td>
<td>6.00 per semester or entire summer</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>ANNUAL FEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Faculty-staff member</td>
<td>$12.00</td>
</tr>
<tr>
<td>2. Faculty-staff spouse</td>
<td>12.00</td>
</tr>
<tr>
<td>3. Faculty-staff child</td>
<td>12.00 (maximum of $40.00 per family)</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>ANNUAL FEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. UTSA Personnel</td>
<td></td>
</tr>
<tr>
<td>1) Faculty-staff member</td>
<td>$12.00</td>
</tr>
<tr>
<td>2) Faculty-staff spouse</td>
<td>6.00</td>
</tr>
<tr>
<td>3) Faculty-staff child</td>
<td>3.00 (maximum of $25.00 per family)</td>
</tr>
<tr>
<td>4) Student spouse</td>
<td>3.00</td>
</tr>
<tr>
<td>5) Student child</td>
<td>1.00</td>
</tr>
<tr>
<td>B. Guest Fee</td>
<td>$ 1.00</td>
</tr>
</tbody>
</table>

Guest of UT San Antonio student, faculty member, or staff member

These fees are non-refundable.

DUPLICATE FEE RECEIPT

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

GENERAL PROPERTY DEPOSIT

Every student must make a general property deposit of $10.00 at the time of initial registration to protect The University from losses, such as property loss, damage, or breakage, violation of rules in any University library or laboratory, failure to return keys furnished by The University, or damage to or loss of any other University property. Charges are billed directly to the student or are collected by the department upon reissue of supplies or property. Failure to pay the charges promptly results in denial of the student's readmission or reenrollment, and in refusal to issue the student's transcript by The University. The property deposit records are reviewed periodically and if charges have been made against the deposit, the student shall be required to bring the deposit up to $10.00.

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

CAREER PLANNING AND PLACEMENT REGISTRATION FEE

UT San Antonio students and alumni interested in 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.

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>ELIGIBILITY</th>
<th>FEES EXEMPTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accredited School</td>
<td>Highest ranking graduate of an accredited Texas high school</td>
<td>Tuition during first two semesters (long session) following graduation</td>
</tr>
<tr>
<td>Scholarship</td>
<td></td>
<td>Tuition</td>
</tr>
<tr>
<td>Texas Ex-Servicemen</td>
<td>(1) Resided in Texas for 12 months prior to registration</td>
<td>Laboratory fees</td>
</tr>
<tr>
<td></td>
<td>(2) A bona fide legal resident of Texas at time entered service</td>
<td>Supplementary fees</td>
</tr>
<tr>
<td></td>
<td>(3) Served in armed forces in World War I, World War II, Korean Conflict, or the Cold War</td>
<td>General fee</td>
</tr>
</tbody>
</table>
## 38 / Tuition, Fees, Charges, Penalties and Deposits

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>ELIGIBILITY</th>
<th>FEES EXEMPTED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Children of Disabled Texas Firemen and Peace Officers</strong></td>
<td>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</td>
<td>Tuition Required fees</td>
</tr>
<tr>
<td><strong>Blind and Deaf Students</strong></td>
<td>A blind disabled person, or a person whose sense of hearing is nonfunctional</td>
<td>Tuition Required fees</td>
</tr>
<tr>
<td><strong>Children of Texas Veterans</strong></td>
<td>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.</td>
<td>Tuition Laboratory fees Supplementary fees General fee</td>
</tr>
<tr>
<td><strong>Good Neighbor Scholarship</strong></td>
<td>(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</td>
<td>Tuition</td>
</tr>
<tr>
<td><strong>Firemen Enrolled in Fire Science Courses</strong></td>
<td>Enrolled in course offered as part of fire science curriculum</td>
<td>Tuition Laboratory fees Supplementary fees</td>
</tr>
<tr>
<td><strong>Children of Prisoners of War or Persons Missing in Action</strong></td>
<td>Dependent person under 25 years of age who receives majority of support from parent. Parent classified by Department of Defense as a Prisoner of War or Missing in Action at the time of registration</td>
<td>Tuition Required fees</td>
</tr>
<tr>
<td><strong>General fee</strong></td>
<td>When payment of fee causes undue economic hardship—number of exemptions limited to 5 percent of the total enrollment</td>
<td>General fee</td>
</tr>
</tbody>
</table>

**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. In a summer term, 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.10

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.

10These 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.

Financial aid programs available to graduate students include College Work Study, Texas Public Education-State Student Incentive Grant; the National Direct Student 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 1st 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 a placement file and use the on-campus interview schedule to meet with representatives from business, industry, and government to explore professional employment opportunities.

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

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.

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

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

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.

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*Fees for the Teacher Placement Service are set forth in Section III of this catalog.*
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 filed 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.
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; (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 met, the student may be barred from continuation in the graduate program. An appli-
cant 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 recom-
mend 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 pur-
pose 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 admis-
sion as a special student at the graduate level, an applicant must: (1) be in good stand-
ing 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 insti-
tution; 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 col-
lege 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 under-
graduate 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 pro-
gram. 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
student. In order to qualify as a summer transient student at the graduate level, the
Admission Requirements

An 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 560 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.

ADDITION 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).
58 / General Academic Regulations

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.

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<tr>
<th>Symbols</th>
<th>Grade Points</th>
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<td>A</td>
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<td>B</td>
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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 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 or 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. MASTERS DEGREE REGULATIONS
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 $5.00 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, except the two official copies for The University, 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. 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.

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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 1984-86
The following graduate degree programs are available during 1984-86. 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
Master of Science Degree

Biology
Chemistry

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

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. Additional graduate courses are available in the following support areas during 1984-86.\(^3\)

Art History and Criticism
Earth and Physical Sciences
Comparative Literature
Geography
Health and Physical Education
Linguistics
Physical Science
Political Science
Sociology

\(^3\)Course offerings in graduate support areas may be postponed if enrollments or resource and space limitations do not warrant scheduling or continuation of a particular course.
IX. GRADUATE DEGREE PROGRAMS AND SUPPORT COURSES
The Master of Business Administration Degree in Business 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) Have completed 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  The Theory, Method, and Use of Accounting
BLW 5003  Legal Environment of Business
ECO 5003  Economic Theory and Policy
FIN 5003  Administrative Finance
MGT 5003  Conceptual Paradigms of Management
MGT 5013  Quantitative Methods for Business Analysis
MGT 5083  Data Processing for Business Analysis
MKT 5003  Marketing Theory

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1Applications for the GMAT, or information on the test, may be obtained from GMAT, Educational Testing Service, P.O. Box 9668, Princeton, New Jersey 08540.
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. All candidates for the M.B.A. Degree in Business are required to complete successfully the following 24 semester hours.

- ACC 5023 Accounting Analysis for Decision-Making
- ECO 5023 Managerial Economics
- FIN 5023 Financial Management
- MGT 5023 Quantitative Methods in Business
- MGT 5033 Business Research Methods
- MGT 5043 Behavior in Organizations
- MGT 5903 Management Policy, Problems, and Trends
- 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.

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 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.

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*Persons having an undergraduate degree in accounting or the equivalent must substitute an accounting elective for this course with the approval of the Committee on Graduate Studies and the Dean of the College.

*MGT 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 64 of this catalog.*
Master of Business Administration Degree in Interamerican Management

**Degree Requirements.** All candidates for the M.B.A. Degree in Interamerican Management must complete the following 24 semester hours:

- ACC 5023 Accounting Analysis for Decision-Making*
- ECO 5023 Managerial Economics
- FIN 5023 Financial Management
- MGT 5023 Quantitative Methods in Business
- MGT 5033 Business Research Methods
- MGT 5043 Behavior in Organizations
- MGT 5903 Management Policy, Problems, and Trends*
- 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.

*Persons having an undergraduate degree in accounting or the equivalent must substitute an accounting elective for this course with the recommendation of the Committee on Graduate Studies and the approval of the Dean of the College.

*MGT 5963 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 64 of this catalog.
DIVISION OF ACCOUNTING AND BUSINESS DATA 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. 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 above stated admission requirements 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 The Theory, Method, and Use of Accounting
- BLW 5003 Legal Environment of Business
- ECO 5003 Economic Theory and Policy
- FIN 5003 Administrative Finance
- MGT 5003 Conceptual Paradigms of Management
- MGT 5013 Quantitative Methods for Business Analysis
- MGT 5083 Data Processing for Business Analysis
- MKT 5003 Marketing Theory
- ACC 5023 Accounting Analysis for Decision-Making
- ACC 5113 Financial Accounting Concepts & Practices II
- ACC 5013 Survey of Federal Taxation of Business Entities
- ACC 4013 Principles of Auditing
- ACC 4033 Advanced Accounting

Applications for the GMAT, or information on the test may be obtained from GMAT, Educational Testing Service, P.O. Box 9600, Princeton, New Jersey 08540.
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.

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 hrs of approved electives

or

OPTION 2: 18 hrs of approved graduate tax courses
12 hrs of approved electives
ACC 6983 Master's Thesis

36 hours

**ACCOUNTING (Public/Management) CONCENTRATION**

OPTION 1: 18 hrs of approved graduate accounting courses
18 hrs of approved electives

36 hours

OPTION 2: 18 hrs of approved graduate accounting courses
12 hrs of approved electives
ACC 6983 Master's Thesis

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 which must be successfully completed at least two weeks prior to the end of the semester in which the student completes the professional report.

**COURSE DESCRIPTIONS**

**ACCOUNTING (ACC)**

5003 The Theory, Method and Use of Accounting
(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.

*Approved 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).

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.

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 manage­  
ment 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.

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 report­  
ing 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. Prerequisite: ACC 5013, 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.

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**

**BUSINESS DATA SYSTEMS**

(BDS)

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.

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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Credit Hours</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>5603</td>
<td>Public Finance and Fiscal Policy</td>
<td>3-0</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>5913</td>
<td>Antitrust — Legal and Economic Analysis</td>
<td>3-0</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>6303</td>
<td>Human Resource Development and Labor Markets</td>
<td>3-0</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>6313</td>
<td>Managerial Labor Economics</td>
<td>3-0</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>6363</td>
<td>Employment and Training Policy</td>
<td>3-0</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>6373</td>
<td>Economics of Poverty</td>
<td>3-0</td>
<td>3</td>
<td>Prerequisite: Consent of instructor. Causes of poverty and ways society provides the means of livelihood for those unable to care for themselves.</td>
</tr>
<tr>
<td>6553</td>
<td>Urban Economics</td>
<td>3-0</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>6951-3</td>
<td>Independent Study</td>
<td>1-3</td>
<td>3</td>
<td>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 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.</td>
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<td>6971-3</td>
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<td>1-3</td>
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<td>6983</td>
<td>Master’s Thesis</td>
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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 at all governmental levels. Public goods and the justifications for public expenditure, intergovernmental fiscal relations. Assessment and taxation structures; various financial disbursement systems; interrelationship of planning, programming and budgeting. Attention to the "politics" of budgetary preparation, passage, and execution. 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.

5673 Inter-American Banking and Financial Systems
(3-0) 3 hours credit. Prerequisite: FIN 5023 or the equivalent.
The evaluation and structure of Latin American financial institutions; operations of the money and capital markets; the role of the government reflected in the operations of the central banks and the public sector financial institutions; source and uses of funds; and the relationships between financial institutions and business enterprises.

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-depositary 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.
5823 **Public Financial Administration**  
(3-0) 3 hours credit. Prerequisite: FIN 5023 or FIN 5043.  
Problems of financial management in governmental units: alternative revenue sources, financial planning and control, cash debt management, survey of modern expenditure management, control and planning.

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 5563 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.

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 Quantitative Methods in Business
(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 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 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 5053 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 Data Processing for Business Analysis
(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 the equivalent.
The opportunity for intensive study covering current literature relating to management theory and enterprise leadership.
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 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 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: Graduate standing.  
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 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.

5333 **Small Business Development and Operation**  
(3-0) 3 hours credit. Prerequisite: MGT 5003 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 database systems and their applications in business.

5393 **Production Management**  
(3-0) 3 hours credit. Prerequisites: MGT 5003 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. Survey of available data base management techniques and packages. Emphasis on applications in management.

5433 **Logistics Systems Analysis**  
(3-0) 3 hours credit. Prerequisite: MGT 5023.  
A study of the logistics requirements during the life cycles of a variety of business, industrial, and military systems. Emphasis is placed on the design, implementation, and management of logistic support systems. Specific topics will include requirements planning, procurement, maintainability, reliability, and analytical tools for evaluating logistic alternatives.

5623 **Industrial Relations**  
(3-0) 3 hours credit.  
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 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.  
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: Graduate standing.  
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 minimum completion of 24 semester hours of M.B.A. work.  
A case study course intended to provide a capstone coverage of material taken in the M.B.A. program, as well as broadening 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.

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.
5103 Problems in Marketing Management  
(3-0) 3 hours credit. Prerequisite: MKT 5023 or the equivalent.  
Case problems in marketing. Designed to give the student an opportunity to utilize the  
material and analytical tools that have been acquired.

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.

5143 Management of Transportation Systems  
(3-0) 3 hours credit. Prerequisite: MKT 5023 or the equivalent.  
Characteristics and critical comparisons of various transportation methods, the use of  
transportation as a component of the distribution system, rate making, labor problems,  
functions of the ICC, CAB and other regulatory groups, cartels, consideration of new con­  
cepts such as the increase in freight forwarders, unit trains and containerization.

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 opera­  
tions 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-America trade patterns; special atten­  
tion 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  
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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, artist/teachers at the college or university level, or 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 admission criteria 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

All master's students in fine arts may apply for admission to candidacy at the end of one semester of full-time study or completion of 12 semester hours of graduate work.
However, 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.
Independent Study
1 to 3 hours credit. Prerequisite: Graduate standing and permission in writing (form available) of the instructor, 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.

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 of Fine Arts degree.

COURSE DESCRIPTIONS

ART HISTORY AND CRITICISM (AHC)

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.

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
Pre-Columbian Arts
19th Century Art
20th Century Art
Contemporary Art

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 directed 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.

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.

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 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 of 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 5813 History of the English Language
   ENG 5823 Principles of English Linguistics
   ENG 5833 Linguistic Approaches to Literature

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 encouraged 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.

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.

5833 **Linguistic Approaches to Literature**  
(3-0) 3 hours credit. Prerequisite: ENG 5823 or consent of instructor.  
Consideration of linguistics as a tool for textual analysis and conceptual model for schools of criticism. Attention to recent developments in discourse analysis and structuralist thought.

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. Comparative literature elective courses permit the candidate an opportunity to place contributions of the Hispanic heritage within the context of world literature, to perceive relationships among literatures, and to discern what is uniquely Hispanic. 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 5613 Hispanic Literary Tradition
   SPN 5843 History of the Spanish Language
   SPN 6703 Concepts of Hispanic Culture: The Dynamics of Change

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 5433 Hispanic Cultural Periods
      or
      SPN 5443 Hispanic Cultural Tradition
   4. SPN 6813 Seminar in Hispanic Studies

   Hispanic Literatures: Students must take one course in each of four groups:
   1. SPN 5623 Spanish Medieval Literature
      SPN 5633 Spanish Golden Age Prose and Poetry
      SPN 5663 Spanish Golden Age Drama
      SPN 5673 The Enlightenment and Romanticism in the Hispanic World
   2. SPN 5723 Spanish Realism and Naturalism
      SPN 5743 Modernism and the Generation of '98
      SPN 5783 Modern Spanish Poetry
      SPN 5793 Modern Spanish Prose
   3. SPN 5683 Spanish-American Realism and Naturalism
      SPN 5753 Contemporary Spanish-American Poetry
      SPN 5763 Contemporary Spanish-American Prose
   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."

*Options 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 Hispanic authors representative of major currents of thought affecting the evolution of Hispanic cultural history.

5423 Pre-Columbian Literature and Culture
(3-0) 3 hours credit.
Manifestations of pre-Columbian literatures and their impact on Hispanic Culture.

5433 Hispanic Cultural Periods
(3-0) 3 hours credit.
Hispanic cultural history as stages of development from the Middle Ages through the Renaissance, the Baroque, the Enlightenment and Romanticism to modern times.

5443 Hispanic Cultural Tradition
(3-0) 3 hours credit.
A study of works reflecting cultural traditions in Spain and Spanish America with particular focus on oral tradition, Hispanic character types, the concept of *Hispanidad*, and the problems of Panamericanism.
5613 Hispanic Literary Tradition
(3-0) 3 hours credit.
Selected Spanish and Spanish American works representative of literary periods, movements, styles, and genres that are essential to an understanding of the development of Hispanic literature.

5623 Spanish Medieval Literature
(3-0) 3 hours credit.
Individual works as representative of the Medieval world view, the mixture of Western and Eastern cultures, and the initiation of genres from the tenth century to the beginning of the Renaissance.

5633 Spanish Golden Age Prose and Poetry
(3-0) 3 hours credit.
The trajectory of poetry in the sixteenth and seventeenth centuries. Initiation and development of Renaissance forms and themes, and their evolution to the Baroque.

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.

5663 Spanish Golden Age Drama
(3-0) 3 hours credit.
The development of drama in the Golden Age, from early examples in the first half of the sixteenth century to the achievement of a definitive form and a national Spanish theater in the seventeenth century.

5673 The Enlightenment and Romanticism in the Hispanic World
(3-0) 3 hours credit.
Spanish and Spanish American literary works reflecting the structures, themes, and philosophical currents of the late eighteenth and early nineteenth centuries.

5683 Spanish-American Realism and Naturalism
(3-0) 3 hours credit.
Selected readings exemplifying the development of narrative prose from the cuadros de costumbres of the mid-nineteenth century through the regionalista, indigenista, and indigenista writings in the twentieth century.

5723 Spanish Realism and Naturalism
(3-0) 3 hours credit.
Theory and practice. Selected readings in nineteenth century Spanish prose from Larra to Blasco Ibáñez exemplifying the trend from freedom to determinism.

5743 Modernism and the Generation of '98
(3-0) 3 hours credit.
Selected works representative of genres, styles, influences, and philosophical concerns of Spanish and Spanish-American literature of the late nineteenth and early twentieth centuries.

5753 Contemporary Spanish-American Poetry
(3-0) 3 hours credit.
Studies of the major works from the vanguard movement to the present.

5783 Contemporary Spanish-American Prose
(3-0) 3 hours credit.
Examination of works with emphasis on literary innovations and new currents in the novel and short story.

5783 Modern Spanish Poetry
(3-0) 3 hours credit.
Studies of the major works from the Generation of '27 to the present.

5793 Modern Spanish Prose
(3-0) 3 hours credit.
Examination of works with emphasis on literary innovations and new currents in the novel and short story.
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.

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 Advanced 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.

6703 Concepts of Hispanic Culture: The Dynamics of Change
(3-0) 3 hours credit.
A profile of the geography and regional dialects, the races and religions, the economics and politics of the Spanish-speaking world as seen through the eyes of both literary and non-literary figures.

6813 Seminar in Hispanic Studies
(3-0) 3 hours credit. Prerequisite: 18 semester credit hours of graduate level Spanish. In-depth study and research of topics in Hispanic culture, literature and/or language not covered in the regular sequence of courses. May be repeated for credit when topics vary.

6853 Theory of Literature
(3-0) 3 hours credit.
Essential problems of literary theory and critical methodology. Areas covered generally include language as literature, literature and society, literature as symbolic form, genres, motifs and themes, periods, styles, and generations.

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
COMPARATIVE LITERATURE (CL)

5013 Theory of Comparative Literature
(3-0) 3 hours credit.

5023 Genre Studies
(3-0) 3 hours credit.
Examination of genres or sub-genres in terms of their distinctive features and diachronic development.

5033 Motif Studies
(3-0) 3 hours credit.
The course will focus on literary motifs and trace their development through a variety of texts and cultures.

5133 Renaissance, Mannerism, Baroque
(3-0) 3 hours credit.
A comparison of European literary styles and their ideological background from the fifteenth to the seventeenth centuries.

5153 Romanticism, Realism, Naturalism
(3-0) 3 hours credit.
Study of European, North and South American literary styles from the termination of the Enlightenment to the end of the nineteenth century.

5213 Major Authors
(3-0) 3 hours credit.
Juxtaposition of authors from varying traditions, demonstrating the commonality of literary experience.

5223 Twentieth Century Studies
(3-0) 3 hours credit.
The study of Symbolism, Modernism, Expressionism, Surrealism, and Existentialism.

6213 Literature and the Other Arts
(3-0) 3 hours credit.
Examination of the relationship between literature and one or more of the other arts (e.g., painting, music, sculpture, film). The course will focus both on specific works of art and on the validity of comparing the arts.

COURSE DESCRIPTIONS
FRENCH (FRN)

5803 Twentieth Century French Literature
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
A panorama of the major movements and figures who have contributed to making French literature an essential expression of Western civilization in this century.
104 / Comparative Literature
German
Linguistics

5863 Applied Phonetics
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
An analysis of the sound system of French in both a theoretical and practical framework. Emphasis will be placed upon practicum with intensive work on an individual basis.

5873 Applied French Grammar and Stylistics
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Practical application of the fine points of French grammar, idiomatic usage, and stylistic analysis.

6703 The Interrelationship of the Arts in France
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
The course focuses on major esthetic movements in French culture throughout the centuries.

COURSE DESCRIPTIONS
GERMAN
(GER)

5803 Contemporary German Literature
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Examination of literary developments in prose, lyric and dramatic works from German-speaking areas since World War II, including literary groups (Gruppe 47, Wiener Gruppe, Gruppe 61), the notion of two literatures in East and West Germany, the Avantgarde and politicized literature of the sixties.

5863 German Phonetics and Phonology
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
The framework of articulatory phonetics and its application to the description of German. Analysis of the sound system of German from both the structuralist and transformational points of view. Attention given to regional and social variation.

5873 Advanced Studies in German Grammar
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Readings and discussions of a variety of studies on German grammar and in-depth analyses of selected problems.

6703 Concepts of German Culture
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
A profile of the geography and regional dialects, the races and religions, the economics and politics of the German-speaking world as seen through the eyes of both literary and non-literary figures.

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.
5043 Phonology  
(3-0) 3 hours credit. Prerequisite: LNG 3813 or equivalent or consent of instructor. Analysis of the sound systems of various languages and the formulation of descriptions to explain them. Readings in both structuralist and generative descriptions.

5053 Grammatical Models and the Development of Linguistics  
(3-0) 3 hours credit. LNG 3813 or equivalent or consent of instructor. Description and comparison of various grammatical models with emphasis on the Twentieth Century and the relationship of these models to earlier approaches to language study.

5063 Theory of Syntax  
(3-0) 3 hours credit. Prerequisite: LNG 3813 or equivalent or consent of instructor. Analysis of grammatical problems and consideration of adequate ways of describing and explaining them.

5073 Historical Linguistics and Language Families  
(3-0) 3 hours credit. Prerequisite: LNG 3813 or equivalent or consent of instructor. The comparison of historically related languages and the methods of reconstructing their common ancestor. The nature of language change. A survey of the family grouping of some of the languages of the world, with attention given to structural differences.

5093 Language Variation  
(3-0) 3 hours credit. Prerequisite: LNG 3813 or equivalent or consent of instructor. Geographical variation of language, comprised of traditional dialectology and linguistic geography, including work with linguistic atlases. Social variation of language, with attention to its role in language change and the development of dialects.

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.

5133 Semantics  
(3-0) 3 hours credit. Prerequisite: LNG 3813 or equivalent or consent of instructor. The structure of meaning involving the arbitrary association of various morphemes with things and situations. The concept of the linguistic sign. Symbol and referent. Denotation and connotation.
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, conducting, and performance (no more than two semester hours may be in a music ensemble).

Option II (with project):
24 semester hours of electives (approved by advisor) to include the areas of theory and analysis, history and literature, research, conducting, and performance (no more than two semester hours may be in a music ensemble).

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

Comprehensive written and oral examinations are required of all degree candidates.

**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.
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. 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, viola, violin, violoncello, voice. May be repeated for credit.

5702 Choral Reading Ensemble
(0-2) 2 hours credit.
Study of selected musical repertoire appropriate to elementary, secondary, and higher education. Supervised student conducting, sight-reading, and discussion. Involvement with guest clinicians when available. May be repeated for credit.

5712 Wind Ensemble
(0-3) 2 hours credit.
The study of selected works for the wind ensemble through ensemble participation in rehearsal and performance. May be repeated for credit.

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.

5742 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.  
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.
The purpose of the graduate program in chemistry is to offer the student the opportunity to gain a sound preparation in the fundamentals of several areas of chemistry, an introduction to recent advances in theory and methods, and to encourage research experience 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 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
Master of Science Degree in Chemistry / 111

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.

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 (27 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 5193 Advanced Inorganic/Physical Laboratory
   CHE 5213 Chemical Thermodynamics
   CHE 5271 Graduate Seminar in Chemistry (3 semester hours)
   CHE 5413 Advanced Organic Laboratory
   CHE 5973 Directed Research

   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. Nine semester credit hours of elective organized course support work within the College of Sciences and Mathematics 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, 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.
112 / Chemistry

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.

5153 Biochemical Structure and Reactions of Organic Macromolecules
(3-0) 3 hours credit. Prerequisites: CHE 5113 and BIO 3513 or consent of instructor. The study of the organic chemistry of macromolecular assemblies of biochemical importance: chemical bonding and structure of amides, esters, nucleic acids, etc.; normal and inverted micellar systems; hydrophilic interactions; hydrophobic interactions; hydrogen bonding; and chemical stimulation/inhibition of polymerization/organization of macromolecular assemblies.

5163 Advanced Instrumental Analysis
(3-0) 3 hours credit. Prerequisites: CHE 3223 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.

5193 Advanced Inorganic/Physical Laboratory
(1-4) 3 hours credit. Prerequisites: CHE 5133, CHE 5163, and CHE 5213. Measurements will be carried out on synthesized inorganic compounds to characterize them and to determine their reactivities.

5213 Chemical Thermodynamics
(3-0) 3 hours credit. Prerequisite: 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 3223 or its equivalent. An advanced study of topics in chemical kinetics, such as electrochemical processes and transport phenomena 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 the instructor.  
An introductory course relating basic inorganic, organic, physical and biochemical principles to environmental problems. Analytical methods used in environmental control are considered.

5333 Chemistry and Physics of Liquid and Solid Pollutants  
(3-0) 3 hours credit. Prerequisite: CHE 5303 or consent of the instructor.  

5413 Advanced Organic Laboratory  
(0-8) 3 hours credit. Prerequisite: CHE 4243 or concurrent enrollment in CHE 5113 or the consent of the instructor.  

5423 Synthesis of Macromolecules  
(3-0) 3 hours credit. Prerequisite: CHE 5113 or the consent of the instructor.  
Synthesis of polymer forming monomers as well as examination of polymerization processes. Formation of polyesters, polyamides, polyethers, polyolefins, plastics, crown ethers, and polyheterocycles. Modes of addition, substitution, and condensation reactions of polymerization.

5433 Computer Analysis of Instrumental Data  
(2-3) 3 hours credit. Prerequisites: CS 5033 or equivalent. CHE 5113, CHE 5163, and CHE 5213 or consent of the instructor.  
Principles of instrument — computer interfacing; computer processing of measured instrumental data; computer controlling of chemical experiments; mathematical modeling of chemical systems.

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 (steady-state and emission kinetics) 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.

5523 Bio-Inorganic Chemistry  
(3-0) 3 hours credit. Prerequisite: CHE 5133.  
The study of biochemical oxidation — reduction reactions involving transition metals. Examination of the chemistry of Na, K, Ca, Mg, and P in transport phenomenon and catalysis. Discussion of metalloproteins and inner sphere vs. outer sphere electron transfer.

5613 Applications of Symmetry  
(3-0) 3 hours credit. Prerequisites: CHE 5133 and CHE 5213.  
The applications of group theory in inorganic and organic chemistry with emphasis on its use in spectroscopy and crystallography.
5623 **Statistical Thermodynamics**  
(3-0) 3 hours credit. Prerequisite: CHE 3223 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.

5633 **Physical Chemistry of Macromolecular Systems**  
(3-0) 3 hours credit. Prerequisites: CHE 5163 and CHE 5213.  
Study of thermal, mechanic, electric, and optical properties of organic and inorganic macromolecular compounds with emphasis on principles and experimental techniques.

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.

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.

6153 **Diffraction Methods of Structural Analysis**  
(3-0) 3 hours credit. Prerequisite: CHE 5133, CHE 5163 or CHE 6133 is also recommended.  
X-ray crystallography; crystal symmetry, space groups; x-ray optics; Patterson and Fourier analysis. Applications of neutron and electron diffraction methods.

6173 **Topics in Medicinal and Pharmaceutical Chemistry**  
(3-0) 3 hours credit. Prerequisite: CHE 5113 or consent of the instructor.  
A study of the chemistry, synthesis, and modes of action of chemotherapeutic agents in the varied aspects of human disease. Selected topics will be covered in depth from among: CNS agents; hormonal agents; pharmaco-dynamic agents; antiparasitic agents; antineoplastic agents. May be repeated for credit when topics vary, but not more than 6 credit hours may be applied to the Master's Degree.

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. Topics (such as synthesis, biosynthesis, biological activity, isolation and structure determination, preparation of analogs, etc.) and types of natural products will vary. May be repeated for credit when topics vary, but not more than 6 credit hours may be applied to the Master's Degree.
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, 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.

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**

**EARTH AND PHYSICAL SCIENCES**  
**(EPS)**

5303 **Environmental Physics**  
(3-0) 3 hours credit. Prerequisite: Undergraduate general Physics.  
Principles of physics applied to the understanding and solution of environmental problems. Topics include mechanics, fluid flow, atmospheric structure, solar and terrestrial radiation, weather data and analysis, and micrometeorology.

5403 **Earth Science**  
(2-3) 3 hours credit.  
Study of the solid earth, oceans and atmosphere. Composition and physical processes of the earth’s crust, interpretation of ancient environments and the evolution of North America.

5413 **Field Geology**  
(0-8) 3 hours credit. Prerequisite: A course in general geology or consent of instructor.  
Field study of igneous, sedimentary, and metamorphic rocks. Construction of planimetric and topographic maps, use of aerial photographs and instruction in basic surveying techniques. Three weeks, full-time, in the San Antonio and Central Texas area.

5423 **Minerals and Rocks**  
(2-3) 3 hours credit. Prerequisite: A course in general geology or consent of instructor.  
Crystallography and crystal chemistry. Physical properties and identification of the more common minerals. Origin, occurrence and identification of major rock types.

5433 **Marine Geology**  
(3-0) 3 hours credit. Prerequisite: A course in general geology or consent of instructor.  
A survey of the geologic processes in the oceans, nature of the ocean basins, current patterns and element distribution.
5443 Applied Geology
(2-3) 3 hours credit. Prerequisite: A course in introductory geology or consent of instructor. Geologic materials and processes as related to their influence on man's physical environment. Mineral resources, engineering works, and planning.

5454 Paleontology
(3-3) 4 hours credit. Prerequisite: A course in historical geology or consent of instructor. Morphology, classification and distribution of invertebrate, vertebrate, and plant fossils. Elements of evolution and paleoecology. Methods of study.

5733 Future Energy Sources
(3-0) 3 hours credit. Prerequisite: Physical or chemical thermodynamics at the upper-division or graduate level or consent of the instructor. A study of research directions aimed at meeting major energy needs; in the short term, new techniques for more efficient use of conventional sources such as oil, coal, and nuclear fission; in the long term, feasible but as yet unproven technologies such as nuclear fusion and solar energy generation in space.
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 physical or biological sciences, engineering, economics or mathematics. This program is for those individuals to have 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 5073.

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:
   - ENV 5203 Human and Natural Resources
   - ENV 6603 Environmental Systems Analysis
   - ENV 6623 Economics of Environmental Resources
   - ENV 6643 Concepts for Public and Environmental Management

B. A minimum of 9 additional semester hours credit must be taken from the following courses:
   - ENV 5533 Environment and Systems
   - ENV 5723 Applied Geosciences
   - ENV 6913 Decision Analysis for Public and Environmental Management
   - ENV 6923 Modeling and Analysis of Environmental Systems
   - CHE 5303 Environmental Chemistry

C. Elective Courses:
   - Nine (9) semester hours of course work from a related field in Environmental Management or from another support area, as recommended by the Committee on Graduate Studies and approved by the Division Director and Dean.

D. Required Practicum (6 hours from the following):
   - ENV 6943 Workshop in Public and Environmental Management (3 or 6 hours)
   - ENV 6963 Internship (3 or 6 hours)
   - ENV 6983 Master's Thesis (6 hours)

   Workshop may be repeated for credit only when subject matter changes. Internship normally consists of 6 hours. Thesis must consist of 6 hours.

   Special Problems and/or Directed Research may be substituted for all or part of the Practicum requirements with the recommendation of the Committee on Graduate Studies and the approval of the Division Director and Dean.

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.

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)**

5203 **Human and Natural Resources**  
(3-0) 3 hours credit.  
A study of population as a resource and the role of humans in the environment. Natural resources are viewed from the contribution they make to the growth process of society. The changing role of human and natural resources as they relate to technology. Writing an Environmental Impact Statement is required.

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. 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.  
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.

6293 **Seminar in Public and Environmental Management**  
(3-0) 3 hours credit.  
A selection of current topics of interest and importance in public and environmental management. May be repeated when subject matter is different.
6413 Policy and Issues on Energy and Mineral Resources
(3-0) 3 hours credit. Prerequisite: ENV 6603, or consent of instructor.
Evaluation of current national and international energy and mineral resources issues; study of the evolution of national energy policies; energy demand and supply elasticity subject to different pricing policies; energy alternatives development versus costs and adaptability to our modern society.

6603 Environmental Systems Analysis
(3-0) 3 hours credit. Prerequisites: MAT 1033, STA 1053, 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 Applied Ecology
(2-3) 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; field work and laboratory practice will be included.

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.

6833 Land and Water Economics
(3-0) 3 hours credit. Prerequisite: ENV 6623 or consent of instructor.
Economic aspects of the use, supply, development, and management of water and land resources with special emphasis on river basin and project planning, benefit cost analysis, system of accounts analysis, water and land demand, and multiple-use resource management.

6843 Groundwater Management
(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. Conservation of groundwater resources will be the central thrust.
6853 Energy Resources Management
(3-0) 3 hours credit. Prerequisite: Physical Science background or the consent of instructor. 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. Prerequisite: Consent of instructor. 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.

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.

6903 Engineering Analysis of Energy Systems
(3-0) 3 hours credit. Prerequisites: ENV 6603, ENV 6853 or consent of instructor. Application of quantitative methodologies and techniques in planning and management of energy systems. Problem areas include: energy supply and demand projections; environmental issues and standards; power generation facility location; fuel substitution; electrical power transmission systems and reliability; legal, social, economic, and engineering considerations; the energy-economy-environment dilemma.

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.

6943 Workshop in Public and Environmental Management
(3-0) 3 hours credit. Offers the opportunity for a team experience in working with citizen's groups, planning agencies, and local governments on plans, issues or programs related to planning and management in the public sector. Students perform planning and management studies under faculty supervision. May be repeated once for credit with advisor's consent.

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
3 hours credit. Prerequisite: Approval of the Dean. An opportunity will be provided the student to work in an environmental management set-
ting which will permit the student 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 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5053</td>
<td>Seminar in Life Sciences</td>
<td>3</td>
<td>Graduate standing</td>
<td>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 a degree.</td>
</tr>
<tr>
<td>5263</td>
<td>Microbial Ecology</td>
<td>3</td>
<td>BIO 3713</td>
<td>A study of the mutual relationships between microorganisms and their environment, especially natural habitats of microorganisms (including normal human flora and pathogens), parasitism, and opportunism in various microbial species.</td>
</tr>
<tr>
<td>5313</td>
<td>Cytogenetics</td>
<td>3</td>
<td>BIO 2313 or the equivalent</td>
<td>An analysis of chromosome structure and function, gene location, crossing-over and variations in chromosome structure and number.</td>
</tr>
<tr>
<td>5333</td>
<td>Advanced Population Genetics</td>
<td>3</td>
<td>BIO 2313 and BIO 2322 or the equivalent. Biostatistics highly recommended.</td>
<td>An experimental approach to the interaction of genotype and environment in populations with emphasis on mutagenesis, selection, polymorphism, and adaptive mechanisms.</td>
</tr>
<tr>
<td>5353</td>
<td>Molecular and Biochemical Genetics</td>
<td>3</td>
<td>BIO 2313 and BIO 3513 or the equivalent. Biostatistics highly recommended.</td>
<td>Molecular and biochemical aspects of structure, replication, mutation and phenotypic expression of genetic material.</td>
</tr>
<tr>
<td>5363</td>
<td>Microbial Genetics</td>
<td>3</td>
<td>BIO 2313 and BIO 3713 or the equivalents. Biostatistics highly recommended.</td>
<td>A study of bacterial, fungal and viral genetics. Emphasis on the current literature, data interpretation and experimental techniques.</td>
</tr>
<tr>
<td>5403</td>
<td>Advanced Comparative Animal Physiology</td>
<td>3</td>
<td>BIO 4353 or the equivalent</td>
<td>Physiology of the organs and organ systems of animals.</td>
</tr>
<tr>
<td>5423</td>
<td>Neuroanatomy</td>
<td>3</td>
<td>Consent of instructor</td>
<td>The anatomy of the vertebrate nervous system.</td>
</tr>
<tr>
<td>5433</td>
<td>Neurophysiology</td>
<td>3</td>
<td>Consent of instructor</td>
<td>Physiology of the nervous system. Emphasis on sensory and motor systems and neural correlations of behavior.</td>
</tr>
<tr>
<td>5463</td>
<td>Reproductive Physiology</td>
<td>3</td>
<td>Courses in organ systems physiology and endocrinology or consent of instructor.</td>
<td>A comparative study of mammalian reproduction with emphasis on the human, including</td>
</tr>
</tbody>
</table>
cellular and systems mechanisms, hormonal regulation, and the effects of environmental factors.

5513 Advanced Biochemistry
(3-0) 3 hours credit. Prerequisite: BIO 3513 or 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.

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 microbial biology. May be repeated for credit as topics vary.

5633 Cell Differentiation
(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.

5743 Biochemical Virology
(3-0) 3 hours credit. Prerequisites: BIO 3713 and BIO 3513.
A detailed study of the diversity of viruses and biochemical mechanisms for their replication.

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, and 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.

6132 Methods in Field Biology
(2-0) 2 hours credit. Prerequisite: BIO 3233 or 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.

6212 Advanced Ecology
(2-0) 2 hours credit. Prerequisite: BIO 3233 or equivalent.
Interaction of organisms with their environment, allelopathy, competition, distribution, succession, and factors that control growth and dispersal. Special consideration will be given 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.
Origins and trends of major behavioral patterns with emphasis on organization and adap-


tive significance. Neural, endocrine, genetic and environmental factors modifying behavior
will be examined.

6643 **Cellular and Molecular Biology**

(3-0) 3 hours credit. Prerequisites: BIO 3513 or consent of instructor.
Structure of eucaryotic and procaryotic 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: AHS 4783.
A study of infectious disease processes with emphasis on host-parasite relationships of
selected microbial pathogens.

6803 **Advanced Immunology and Imunochemistry**

(3-0) 3 hours credit. Prerequisites: BIO 4743 and BIO 4751.
The study of current concepts of humoral and cell-mediated immunity with emphasis on
molecular mechanisms.

6823 **Molecular Radiation Biology**

(3-0) 3 hours credit. Prerequisites: BIO 3513, BIO 3533 or consent of instructor.
Biological effects of ionizing and non-ionizing radiation and the mechanisms of repair of
radiation damage at the cellular and subcellular level.

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 Advi-
sor 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 MATHEMATICS, COMPUTER SCIENCE, AND SYSTEMS DESIGN

MASTER OF SCIENCE DEGREE IN COMPUTER SCIENCE AND SYSTEMS DESIGN AND MASTER OF SCIENCE DEGREE IN MATHEMATICS

The division offers a Master of Science Degree in Computer Science and Systems Design in which the student may select a concentration in Computer Science or a concentration in Systems Design. The division also offers a Master of Science Degree in Mathematics in which the student may select a concentration in Mathematics, a concentration in Statistics or a concentration in Mathematics Education.

Special Admission Requirements. It is recommended highly that at least a B.A. or B.S. in mathematics or computer science 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 either degree are required to complete successfully 36 semester hours of credit. These 36 hours will be subject to the following conditions:

1. A minimum of 21 hours of course work must be chosen from eligible courses within the Division of Mathematics, Computer Science, and Systems Design with numbers greater than 5000. These hours must be chosen to include the required courses for the Degree and concentration chosen by the student as listed below.

A. The Master of Science Degree in Computer Science and Systems Design is offered with two concentrations.

Concentration 1. Computer Science
Concentration 2. Systems Design

All candidates for the Master of Science in Computer Science and Systems Design regardless of concentration must complete the following three semester hour course.

CS 5523 Operating Systems and Architecture

In addition, a candidate for the Master of Science in Computer Science and Systems Design degree must complete the required courses for one of the concentrations declared by the candidate.

(1.) Concentration in Computer Science required courses: 6 semester hours.

CS 5303 Structure of Programming Languages
CS 5443 Information Retrieval Systems

(2.) Concentration in Systems Design required courses: 6 semester hours.

SD 5203 Mathematical Methods for Systems Design
SD 5723 Microcomputer Systems I

B. The Master of Science Degree in Mathematics is offered with three concentrations.

Concentration 1. Mathematics
Concentration 2. Statistics
Concentration 3. Mathematics Education

All candidates for the Master of Science in Mathematics regardless of concentration must complete the following 9 semester hours of courses.
Master of Science Degree in Computer Science and Systems Design and Master of Science Degree in Mathematics

MAT 5203 Theory of Functions of a Real Variable I
MAT 5283 Linear Algebra and Matrix Theory I
STA 5503 Mathematical Statistics I

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 5173 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:

a. 9 semester hours

MAT 5023 Problem Solving Seminar
MAT 5033 Foundations and Fundamental Concepts of Mathematics
MAT 5043 Euclidian and Non-Euclidian Geometry

b. Additionally, 9 semester credit hours may be chosen from the Division of Education with the consent of the Graduate Studies Committee in Mathematics.

2. 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.

3. Upon the recommendation of the Committee on Graduate Studies and advance approval by the Division Director and Dean, 6 semester hours chosen from courses numbered between 3000 and 4999 within the Division of Mathematics, Computer Science, and Systems Design may be included in the degree program.

4. A sufficient number of additional graduate hours to complete the required 36 hours may be selected from other disciplines upon the recommendation of the Committee on Graduate Studies and approved by the Division Director and Dean. Students pursuing the concentration in Mathematics Education may not have more than a total of 9 hours of credit applied toward the degree chosen from outside the Division of Mathematics, Computer Science and Systems Design.

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 that section of the present catalog.
COURSE DESCRIPTIONS

COMPUTER SCIENCE
(CS)

5003 Computers Literacy for Educators
(3-0) 3 hours credit. This course cannot be applied to the major in Mathematics or to the major in Computer Science and Systems Design without the recommendation of the Committee on Graduate Studies and approval of the Division Director and Dean. 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.

5023 Computers for Mathematics Teachers
(3-0) 3 hours credit. This course can only be applied to the major in Mathematics with a concentration in Mathematics Education. A course for mathematics teachers on integrating the computer into the mathematics curriculum with an algorithmic-oriented introduction to computer programming in BASIC.

5033 Basic Concepts of Computer Science I
(3-0) 3 hours credit. Prerequisite: Knowledge of some programming language. May not be counted toward the Master of Science Degree in Mathematics or to the master's degree in Computer Science and Systems Design. 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.

5043 Basic Concepts of Computer Science II
(3-0) 3 hours credit. Prerequisite: CS 5033 or equivalent. May not be counted toward the Master of Science Degree in Mathematics or to the major in Computer Science and Systems Design. Designed for students who have not taken CS 2733 and CS 2743 or their equivalents. The opportunity for intensive study of file organization and use, computer organization and assembly language programming.

5103 Software Design Methodology
(3-0) 3 hours credit. Prerequisite: CS 4753 or equivalent. 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, database 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. Prerequisite: CS 5043 or equivalent. 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.

5233 Artificial Intelligence
(3-0) 3 hours credit. Prerequisite: CS 5043 or equivalent. 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 5043 or equivalent. This course is a study of topics in Cognitive Science, such as, machine learning, concepts formation, representing knowledge, natural language understanding.
Computer Science / 129
Mathematics

5303 Structure of Programming Languages  
(3-0) 3 hours credit. Prerequisite: CS 3723 or equivalent.  
Study of the features of a variety of current programming languages including list processing language, with special consideration of implementation of these languages.

5353 Formal Languages, Automata and Theory of Computation  
(3-0) 3 hours credit. Prerequisite: CS 5043 or equivalent.  
Formal models of computation and syntax.

5443 Information Retrieval Systems  
(3-0) 3 hours credit. Prerequisite: 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.

5523 Operating Systems and Architecture  
(3-0) 3 hours credit. Prerequisite: CS 4753.  
Areas of study include operating system reliability, parallel computers, multiprocessors, pipelines, and architecture and operating system implementations.

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 or equivalent.  
This course consists of (1) a 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, and (2) a study of techniques which may be used for performance evaluation and projection including benchmarks, traces, synthetics workloads, analytic modeling and simulation.

6633 Simulation Techniques  
(3-0) 3 hours credit. Prerequisites: CS 1723 and STA 3513, or consent of instructor.  

COURSE DESCRIPTIONS  
MATHEMATICS  
(MAT)

5003 Modern Mathematics for Teachers  
(3-0) 3 hours credit. This course cannot be applied to the major in Mathematics or to the major in Computer Science and Systems Design without the recommendation of the Committee on Graduate Studies and approval of the Division Director and Dean.  
General topics course for teachers. Topics may vary and are designed to offer teachers the opportunity to investigate in depth several unifying concepts in the mathematics curriculum.

5023 Problem Solving Seminar  
(3-0) 3 hours credit. This course can only be applied to majors in Mathematics with a concentration in Mathematics Education.  
Students will have the opportunity to engage in extensive experience and practice in solving mathematical problems.
5033 Foundations and Fundamental Concepts of Mathematics
(3-0) 3 hours credit. This course can only be applied to the major in Mathematics with a concentration in Mathematics Education.
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.

5043 Euclidean and Non-Euclidean Geometry
(3-0) 3 hours credit. This course can only be applied to the major in Mathematics with a concentration in Mathematics Education.
Topics will be selected from advanced euclidean and non-euclidean geometry, solid analytic geometry and differential geometry.

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.

5293 Numerical Linear Algebra
(3-0) 3 hours credit. Prerequisite: MAT 2233 or consent of instructor.
Study of stable numerical methods for the solution of linear systems of equations, least square problems and matrix eigenvalue problems. Applications in statistics and in the numerical solution of differential equations.

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.
Mathematics / 131

5333 **Hilbert Space**  
(3-0) 3 hours credit. Prerequisites: MAT 3213 and MAT 5283 or their equivalents. Hilbert space as a generalization of n-dimensional Euclidean space, normed linear spaces and inner product spaces, completeness, bases, dimension, bounded linear operators.

5353 **Metric Geometry I**  
(3-0) 3 hours credit. Prerequisite: MAT 4263 or consent of instructor. A detailed study of the geometry of metric spaces which leads to metric characterization of Banach and Hilbert spaces.

5363 **Metric Geometry II**  
(3-0) 3 hours credit. Prerequisite: MAT 5353. Continuation of MAT 5353, including metric characterizations of the classical noneuclidean spaces.

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.

5613 **Numerical Solution of Differential Equations**  
(3-0) 3 hours credit. Prerequisite: MAT 5603 or the equivalent. Emphasis on the mathematical analysis of numerical methods. Areas of study include the analysis of single and multistep methods for ordinary differential equations. Analysis of finite difference and finite element methods for partial differential equations.

5653 **Differential Equations I**  
(3-0) 3 hours credit. Prerequisite: MAT 2213. 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.

5813 **Methods of Applied Mathematics I**  
(3-0) 3 hours credit. Prerequisite: MAT 3613 or MAT 5653 or consent of instructor. Areas of study include Fourier analysis, Laplace transforms, curvilinear coordinates, applications of complex variables, conformal mappings.

5823 **Methods of Applied Mathematics II**  
(3-0) 3 hours credit. Prerequisite: MAT 3613 or MAT 5653 or consent of instructor. MAT 3623 or MAT 5663 recommended but not required. Areas of study include tensor and vector analysis. Calculus of variations. Equations of mathematical physics.

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.
132 / Mathematics
Statistics

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 Optimization Techniques in Operations Research
(3-0) 3 hours credit. Prerequisites: MAT 2213, MAT 2233 or consent of instructor. Analysis and application or 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, 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 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 3513.  
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.  
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.

5653 **Applied Stochastic Processes**  
(3-0) 3 hours credit. Prerequisite: STA 5503 or consent of instructor.  

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.

5813 **Multivariate Analysis I**  
(3-0) 3 hours credit. Prerequisites: MAT 2233 and STA 5103.  
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.  
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.

5983 Seminar in Statistical Consulting
3 hours credit. Prerequisite: Consent of instructor.
Consulting apprenticeship under the faculty member responsible for this course. This course 
offers the opportunity for students to apply statistical techniques to real data. Emphasis 
will be on analyzing data using packaged programs. Use of various available packages 
will also be emphasized. It is suggested that students take this course when they are close 
to graduating. The course is strongly recommended for those interested in statistics.

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.

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: SD 3843.
Introduction to microprogramming concepts. Architectural characteristics of micropro-
grammed computers. Microprogramming languages and support software. Computers with 
vertical, diagonal and horizontal microinstruction formats. Developments in microprogramming 
languages. Applications of microprogramming. Design of microprograms to imple-
ment the full instruction set of a computer. Special purpose microprograms implemented 
in Writable Control Store.

5723 Microcomputer Systems I
(2-2) 3 hours credit. Prerequisites: SD 4813 and SD 4853.
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 program-
manship. System bus and I/O control logic. Input/output interfaces. Memory subsystems. 

5743 Input-Output Subsystems
(2-2) 3 hours credit. Prerequisite: SD 3843.
An in-depth study of the organization and design of input-output controllers such as for 
disks, 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.
5763 Distributed Processing and Networks
(2-2) 3 hours credit. Prerequisites: SD 3843, SD 3863, and SD 5723.
The structure, implementation and application of distributed mini- and microcomputer systems. Implementation of interconnect mechanisms including shared memory, shared bus, loop, star, hierarchical and point-to-point configurations. Software for message and interprocess communication. Data link control protocols and network control programs. Process characterization including performance requirements definition, system partitioning, sizing, timing and system tradeoff analysis.

COURSE DESCRIPTIONS
COMPUTER SCIENCE/SYSTEMS DESIGN
(CSD)

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, 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.

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 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 and research issues 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. The student who obtains an M.A. degree in this program may either continue graduate education at the doctoral level or carry out professional duties in cultural resource management if the M.A. is the highest degree obtained.

Both the Ethnohistory and Archaeology areas can be fulfilled under two options. Option I consists of 27 credit hours of courses and 6 credit hours of supervised preparation of the master's thesis; Option II, allowed only where scholarly work equivalent to a thesis has already been done, consists of 36 credit hours of course work.

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.

Competence in a foreign language will be required, based on the nature of the program and coursework sought by the student. The language requirement will be determined at the time a student is accepted into the graduate program and must be satisfied prior to completing the Master's thesis or prior to enrollment in the last 6 hours of coursework if the student is pursuing the non-thesis option. The level of competence required may range from basic reading ability and translation skills through conversational ability and will be measured by means determined by the Division faculty. Prospective applicants are urged to consult with the Division Graduate Advisor of Record if deficiencies in this area are anticipated.

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.

5103 **Seminar in Social Organization Theory**  
(3-0) 3 hours credit.  
Analysis and comparison of the social and political structure of human societies, especially preliterate societies. Particular attention to developments in theory since 1950.

5123 **Ethnology and Ethnohistory of the Greater Southwest**  
(3-0) 3 hours credit.  
Examination of the native American populations of the Greater Southwest. Changes in lifeways after European contact, the mission era, the reservation period, modern Indian societies and nativistic movements.

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.
5143 **Ethnology of Mesoamerica**  
(3-0) 3 hours credit.  
Examination of the cultural diversity of the native and ladino cultural traditions of Mexico and Guatemala. The period covered is the colonial through the recent period although emphasis is on the latter. Community studies of traditional communities, social, structural and economic systems studies, urban anthropology, and other sources are utilized.

5153 **Seminar in Mexican-American Culture**  
(3-0) 3 hours credit.  
A survey of Mexican-American culture. Special studies in ethnology, ethnography, ethnohistory, folklore, and linguistics.

5203 **Language, Culture, and Cultural Change**  
(3-0) 3 hours credit.  
Analysis of the nature and function of language and non-verbal communication. Problems of cross-cultural communication and acculturation in relation to cultural conflict with particular emphasis on the Mexican American. Includes cultural dynamics and directed change.

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.

5423 **Archaeological Backgrounds of Mesoamerica**  
(3-0) 3 hours credit.  
Review of Mesoamerican prehistory from late Pleistocene time to the fall of Tenochtitlan. Emphasis will be placed on social and technological development sequences, the growth and decline of political states, linkages to natural settings, interaction among cultures, and continuities into the historical present.

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.

5556 **Field Course in Archaeology**  
(2-12) 6 hours credit. Prerequisite: Consent of instructor.  
The opportunity for advanced training in field procedures, and their applications to problem-oriented field research. May be repeated for credit.

6113 **Seminar in the Anthropology of Mesoamerica**  
(3-0) 3 hours credit. Prerequisite: ANT 5143 recommended.  
Attention is centered on a limited number of significant problems in Mesoamerican anthropology to which materials from archaeology, ethnology and ethnohistory contribute. Examples of such problems are: demography and the rise of Mayan civilization, roots of Mesoamerican peasant culture, and distribution analysis of cultural and language variance. May be repeated for credit when topics vary.
6133 Seminar in Medical Anthropology  
(3-0) 3 hours credit. Prerequisite: ANT 3173 recommended.  
Attention is centered on a limited number of significant problems in medical anthropology to which materials from ethnohistory, archaeology, ethnology, paleopathology, and cultural ecology contribute. Topics may include interaction of genetic and cultural influences and health consequences of technological change. May be repeated for credit when topics vary.

6403 Archaeological Analysis  
(3-0) 3 hours credit.  
Training in the analytic techniques of archaeology, including processing and sorting of data, the classification and description of artifacts, methods of literature research, and the preparation of manuscripts and reports.

6443 Supervised Field Research  
(0-12) 3 hours credit. Prerequisite: Consent of instructor.  
The course is designed to offer the opportunity for intensive training and requires the student to carry out independent research and analysis of field data. May be repeated for credit.

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 a 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.
MASTER OF ARTS DEGREE IN HISTORY

Degree. The Master of Arts degree program in History is founded on two objectives. The first is to offer the opportunity for the student to build an awareness of history as an intellectual enterprise and an identification with the scholars who carry it forward. While it is necessary to be acquainted with the findings of historians, it is also essential to appreciate the discipline as a scholarly venture and to participate actively in that venture.

The second objective is to provide the opportunity to study local and national societies and cultures from a professional historical viewpoint. The M.A. program is designed to serve the needs of individuals with specific career goals as well as the educational and intellectual interests of a growing multi-cultural society in San Antonio and South Texas.

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 proseminar-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 student'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, 1815-1850
(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.

5143 The Civil War, Reconstruction and American Society
(3-0) 3 hours credit.
The social background and causes of the Civil War and the impact of the war and of Reconstruction on society and politics.

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 Mississippi River in the nineteenth and twentieth centuries, with emphasis on the influences of the frontier upon Spanish and Anglo-American institutions.

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.

5403 History of Mexico and Guatemala: The Colonial Period
(3-0) 3 hours credit.
Survey and detailed examination of the major events, trends and developments during the period of Spanish domination from 1521 to 1810. Consideration will be made of the legacy of native culture and social systems from the Pre-Hispanic past. Demographic, social and economic disruptions and readjustments in the early colonial period; the viceroyalty.

5413 History of Mexico: The Republican Period
(3-0) 3 hours credit.
A detailed survey of Mexican history from independence to the present, concentrating on the Santa Anna period, the United States-Mexican War, the Juarez reforms, the rise and decline of Porfirian rule, and the significance of the Revolution of 1910 and its aftermath.
5443 **History of South America: The Colonial Period**  
(3-0) 3 hours credit.  
Includes consideration of the Caribbean; Portuguese colonization of Brazil; the conquest of Peru and the civil wars; the conflict between crown and colonists over native populations; Jesuit settlements in Paraguay; social, political and cultural developments within the colonies; the economic basis of The Wars of Independence.

5453 **History of South America: The Early Republican and Modern Periods**  
(3-0) 3 hours credit.  
The Wars of Independence; conservative/liberal conflicts and civil wars in the early republican period; the War of the Pacific; social, economic and political developments; Brazil as a separate tradition. Relations between South American republics and the United States; the Panama Canal incident; European immigration; industrialization and social change; World War II; demographic changes and foreign immigration; Communism and revolutionary movements; Castro and Cuba.

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 regime**  
(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.

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

Concentrations in:

- Bicultural-Bilingual Teacher Education
- Bicultural Studies
- English as a Second Language

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 and culture.

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
- BBL 6083 Biculturalism in the Southwest

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
- BBL 6023 Bilingual Resource Centers
Research, Development and Evaluation (six 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

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
or
BBL 6083  Biculturalism in the Southwest

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 5403  History of Mexico and Guatemala: The Colonial Period
HIS 5413  History of Mexico: The Republican Period

Language and Expressive Culture (six required hours)
SPN 5803  Mexican-American Literature
SPN 6703  Concepts of Hispanic Culture: The Dynamics of Change
AHC 5813  Seminar in Art History
BBL 6033  Topics in Bicultural Studies
AHC 6813  Practicum in Art History and Criticism
**Research Foundations** (six required hours)
- BBL 6073 Ethnographic Research Methods in Bicultural-Bilingual Studies
- 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

**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 approach, method, and technique. 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:

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<thead>
<tr>
<th>Theory of Language and Language Acquisition (six to nine required hours)</th>
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<tbody>
<tr>
<td>ESL 5003 Linguistics for Second Language and Bilingual Specialists</td>
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<tr>
<td>ESL 5013 Psycholinguistic Foundations of Second Language Teaching/Learning</td>
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<td>ESL 5023 Language Analysis for Second Language Specialists</td>
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<th>Methods and Materials (nine to twelve required hours)</th>
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<tr>
<td>ESL 5053 Second Language Teaching Methods</td>
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<td>ESL 5063 Second Language Teaching Techniques</td>
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<td>ESL 6073 Language Teaching Materials</td>
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<td>ESL 5033 Reading Acquisition and Techniques</td>
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<td>OR</td>
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<td>ESL 6063 Controlled Composition and Writing in Second Language Programs</td>
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<th>Program Research, Design, and Evaluation (three required hours)</th>
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<tr>
<td>BBL 5053 Tests and Measurements in Bilingual and Second Language Studies</td>
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</tr>
</tbody>
</table>
148 / Bicultural-Bilingual Studies

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 bilingual programs. 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 appropriate methods and techniques for teaching reading in two languages.

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.

5103  Materials for Teaching Content In Bicultural-Bilingual Programs
      (3-0) 3 hours credit.
      A study and analysis of materials applicable for the teaching of subject area content in
      bicultural-bilingual programs, with emphasis on the adaptation and development of materials.
      Offered in Spanish.

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 implementa-
      tion 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.

6023 Bilingual Resource Centers
(3-0) 3 hours credit.
A comparative study of the role and function of resource centers as components of bicultural-bilingual programs, with emphasis on the use of media.

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.

6083 Biculturalism in the Southwest
(3-0) 3 hours credit.
A study of traditional culture patterns and the dynamics of sociocultural change pertinent to biculturalism in Mexican-American—Anglo-American relations.

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.
Bicultural-Bilingual Studies
English as a Second Language

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 as they relate to issues in English as a Second Language and Bilingual Studies and Education, theoretical and methodological. This course focuses on an overview of the nature and structure of language with implications for the teaching of second languages in bilingual programs as well as in adult ESL programs.

5013 Psycholinguistic Foundations of Second Language Teaching/Learning
(3-0) 3 hours credit.
The study of the principles and theories critical for the teaching and acquisition of second languages and the performance of bilingual skills in bilingual settings.

5023 Language Analysis for Second Language Specialists
(3-0) 3 hours credit.
A course to offer the student the opportunity to prepare as a second-language specialist to identify and analyze the language learning elements in their lessons.

5033 Reading Acquisition and Techniques
(3-0) 3 hours credit.
A course on the relationship of reading acquisition to language, and the preparation and adaptation of appropriate reading texts at various levels. Critical evaluation of existing reading materials and progressive second language readers available in controlled vocabularies. Specifically designed for students of ESL.

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 use of media.

6013 Error and Discourse Analysis
(3-0) 3 hours credit.
A study of second language acquisition theory with emphasis on learner strategies and processes.

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.

6073 **Language Teaching Materials**
(3-0) 3 hours credit.
Offers the student the opportunity for preparation in the revision, adaptation, and utilization of language teaching materials. Designed for ESL, bilingual education, and adult basic education 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.
Master of Arts Degree in Education

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. The concentration is designed to offer the student the opportunity to increase skills in collecting, organizing, and interpreting information relative to students, and techniques for communicating this information to students, parents, and other appropriate publics.

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 with 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.

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.

B) A candidacy examination
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: Mentally Retarded, Emotionally Disturbed, Language/Learning Disabled)
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

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<thead>
<tr>
<th>Option I, with thesis</th>
<th>Option II, without thesis</th>
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<tr>
<td><strong>Core</strong></td>
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<tr>
<td>EDU 5003</td>
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12 hours 12 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.

5203 Patterns of Instructional Interaction
(3-0) 3 hours credit. Prerequisite: Admission to candidacy or consent of instructor.
The opportunity for practice in the skills and dynamics of instructional behavior and a study of the predictability of student response behavior when strategies are selected according to predetermined criteria. This course and SED 5203 may not both be taken for credit.

5303 Instructional Media and Technology
(3-0) 3 hours credit. Prerequisite: C&I 5003 or consent of instructor.
The opportunity for examination and development of criteria and schema for evaluating and selecting different instructional media formats, especially as the characteristics peculiar to different media forms apply to the instructional objectives and instructional environment planned.

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.

5453 Curriculum Evaluation  
(3-0) 3 hours credit. Prerequisite: Admission to candidacy or consent of instructor.  
An examination of the several procedures used to evaluate curriculum materials and development activities. Formative and summative evaluation will be compared and contrasted and the consequences of model evaluative systems will be demonstrated.

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. If needed, sections may be scheduled on specific types of handicaps.

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.

5703 Secondary School Curricula  
(3-0) 3 hours credit.  
A systematic analysis of secondary school curricula. A critical study of objectives, methods of organization, content, methods and materials of learning used with youth.

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. If needed, sections may be scheduled on specific types of handicaps.

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.

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.

6153 Seminar on Child Care and Family Services
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Opportunity to engage in topical analysis of current policy, politics, and social science of perspectives on the care and education of young children and related family services. Reading sources are drawn from policy analysts, legal and medical professionals, and social scientists.

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.
160 / Education
   Educational Management

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.

5603 Contemporary Issues in Education
   (3-0) 3 hours credit. Prerequisite: EDU 5003 or consent of instructor.
   Identification and analysis of the major contemporary educational issues, evaluation of attempted historical resolutions, and review of information relevant to policy decisions.

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; interrelation-
ships 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 support­
tive 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 support­
ing 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 impli­
cations of significant court decisions pertaining to school operations. Emphasis on legislation
related to the multicultural nature of society and the schools.

5803 **The Middle School**
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Origin, objectives, programs, and administration of the middle school with consideration
of the junior high school heritage. Emphasis on organization of programs based on physical
and psychological development of the clientele.

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.
162 / Educational Management
Educational Psychology

**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 5803 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  **The Mentally Retarded Child**  
(3-0) 3 hours credit. Prerequisite: EDP 5403 or consent of instructor.  
A study of the retarded child from historical, sociological, psychological, and educational perspectives. The implications of a variety of theories for the education of the retarded child will be examined. Current trends in service delivery will be studied.

5423  **Behavior Analysis and Modification**  
(3-0) 3 hours credit. Prerequisite: EDP 5403 or consent of instructor.  
Principles and procedures of behavior analysis and modification for the acquisition of social, academic, and life skills necessary to facilitate achievement of the handicapped child. Requires an applied behavior analysis project with exceptional children.

5443  **Parent Conferences and Consultative Skills in Special Education**  
(3-0) 3 hours credit. Prerequisite: EDP 5403 or consent of instructor.  
The opportunity to learn practical and theoretical knowledge 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 Severely Handicapped Child**  
(3-0) 3 hours credit. Prerequisite: EDP 5403 or consent of instructor.  
Methods for assisting severely handicapped pupils to achieve communicative competence
through language acquisition, remedial and intervention programs, and alternative non-
speech language and communication systems.

5483 Practicum in Special Education: Mentally Retarded
(3-0) 3 hours credit. Prerequisites: EDP 5403 and consent of instructor.
The application of theoretical principles to school and community settings designed for
mentally retarded individuals. Students will be offered the opportunity to develop and imple-
ment diagnostic and curricular materials in a field setting.

5533 The Special Education Student in the Regular Classroom
(3-0) 3 hours credit:
The study of the role of education and of special education personnel and the changing
nature of services, delivery systems, and legislation pertaining to the handicapped in society.

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 prac-
tical 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.

5563 Practicum in Special Education: Mildly 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 mildly handicapped children.

5573 Practicum in Special Education: Severely 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.

5583 Practicum in Special Education: Language/Learning Disabled
(3-0) 3 hours credit. Prerequisites: C&I 6203 and consent of instructor.
The application of theoretical principles to school settings designed for the LLD child. The
student will be required to develop and implement diagnostic-prescriptive teaching pro-
grams in field settings.

5593 Practicum in Special Education: Emotionally Disturbed
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
The application of theoretical principles to field settings. The student will work in educa-
tional settings which will include planning, implementing, and evaluating appropriate expe-
riences with emotionally disturbed students.

5603 The Gifted And Talented Student In The School
(3-0) 3 hours credit. Prerequisite: EDP 5013 or EDP 5023 or consent of instructor.
A study of the characteristics of the gifted and talented student. Emphasis on the student,
on methods of teaching, and on the potential influence of the school environment on
development.

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 interpreta-
tion 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.
6003 **Educational Social Systems**  
(3-0) 3 hours credit. Prerequisites: EDP 5003 and EDP 5233.  
A study of social systems theory applied to educational settings. Students will be offered the opportunity to integrate observational research methodology, social systems theory, and social learning theory to the analysis of schools, classrooms, and other educational groups.

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.

5103 Contemporary Thought in Higher Education
(3-D) 3 hours credit.
A study of current thought as it relates to the management of institutions of higher education.

5203 The American College Student
(3-D) 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-D) 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.

5403 Resource Allocations in Higher Education
(3-D) 3 hours credit.
Concepts and practices in financing, planning, program and institutional budgeting in higher education.

5603 Development and Organization of Adult and Continuing Education
(3-D) 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.

5613 Methods in Adult and Continuing Education
(3-D) 3 hours credit.
An examination of delivery systems adapted to adult learning requirements including television, radio, audio-tutorial and computerized instruction. The opportunity for individualized program instruction versus the traditional classroom, the format for adult learning, testing for comprehension and retention.

5623 Adult and Continuing Education Management Systems
(3-D) 3 hours credit.

5633 Practicum in Adult and Continuing Education
3 hours credit. Prerequisite: Consent of instructor.
A supervised experience concerned with coordinating adult and continuing education programs. Activities include developing programs, finding community sponsors and clients, budgeting and staffing programs, implementing and evaluating programs. Students meet with other students and a senior staff member to discuss their experiences, problems, and solutions and strategies.

6003 The Community College
(3-D) 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-D) 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.
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)

5103 Diagnosis and Prescription: Individualizing Instruction, Secondary
(3-0) 3 hours credit.
An in-depth study of the tasks and problems associated with individualized instruction in secondary schools. Students will 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 C&I 5103 may not both be taken for credit.

5203 Patterns of Instructional Interaction, Secondary
(3-0) 3 hours credit.
Practice in the skills and dynamics of instructional behavior and a study of the predictability of student response behavior when strategies for secondary schools are selected according to predetermined criteria. This course and C&I 5203 may not both be taken for credit.

5743 Reading in Secondary School
(3-0) 3 hours credit.
Principles and techniques for teaching secondary school reading and comprehension skills in order to maximize proficiency in learning various academic subjects. Ability to stimulate literary appreciation in older children, to differentiate instruction to meet individual needs. Effective use of teaching aids and equipment. This course and C&I 5743 may not both be taken for credit.

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) SSC 3003 or the equivalent. 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 36. All candidates for the degree must complete:

A. 18 semester hours of core courses:
   1. FIN 5043 Budgeting and Finance in 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. Human Resources 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 Internship, Practicum or Thesis. Consent of the Dean and the MPA Graduate Advisor of Record must be received before enrollment in these courses.

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.

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.
COURSE DESCRIPTIONS
PUBLIC ADMINISTRATION
(PAD)

5003 Contemporary Perspectives on Public Administration
(3-0) 3 hours credit. Prerequisite: Graduate standing.
Analysis and evaluation of current issues in public administration.

5223 Urban Management
(3-0) 3 hours credit.
An examination of the major issues, problems and processes involved in managing urban
government in the United States. The economic, social, and political world of the urban
manager will be explored as well as the nature of local governmental structure in the
American federal system.

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 par-
ticular 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 in Context
(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 in an era
of fiscal stress. Analyzes the relationship of budgetary and fiscal theories to public manage-
ment, 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 unemploy-
ment, 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 Urban Planning I
(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.)
5523 Comparative Urban Development
(3-0) 3 hours credit.
A comparative study of the interaction of culture, economics, and natural environment as they affect urban development over time. Areas covered include preindustrial cities in the Mediterranean, Medieval Europe, and Pre-Hispanic America. The development of city planning in European and American cities will be considered. (Formerly ENV 5523: Credit cannot be earned for both ENV 5523 and PAD 5523.)

5543 Urban Housing
(3-0) 3 hours credit.
An analysis of housing problems, their causes and attempted solutions and ecological effects to include the dynamics of urban growth and aging processes. (Formerly ENV 5543: Credit cannot be earned for both ENV 5543 and PAD 5543.)

5553 Urban Planning II
(3-0) 3 hours credit.
This course focuses on the practical application of the analytical tools and techniques available to the city planner in addressing planning problems. Emphasis is placed on developing familiarity and skill in using the supportive research tools needed to accomplish the various elements of an urban general plan. (Formerly ENV 5553: Credit cannot be earned for both ENV 5553 and PAD 5553.)

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 posture; 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.
A study of applications of quantitative approaches to public decision analyses. 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.

8223 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.

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 service, delivery systems, police systems, fire systems) as interrelated systems by analyzing their measures of effectiveness and common problems. Mathematical models for analyzing these functions are reviewed.

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
3 hours credit.
An opportunity will be provided the student to work in a setting which will permit him 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.)
172 / Criminal Justice
Geography

5163 Seminar in Security Administration
(3-0) 3 hours credit.
Major contemporary issues in the security administration field with special attention to
the role of the private sector in the criminal justice process.

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 agen­
cies. Emphasis on planning and evaluation of innovative programs.

5553 Seminar in Police Administration
(3-0) 3 hours credit.
Reviews administrative structure, management practices, and operational aspects of law
enforcement agencies. Analysis and evaluation of innovative programs, and the impact
of science and technology.

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 perspec­
tive. Topics may include urbanization, housing and neighborhood space, intrasuburban migra­
tion, the location of economic activity in the city, and urban land use systems. May be
repeated for credit when the topics vary.

6153 Seminar in the Geography of Latin America
(3-0) 3 hours credit.
Intensive analysis of selected problems in Latin American geography, including comparative
settlement patterns; resource distribution and political structure; altitudinal factors in
exchange networks; and micro-regional analyses. 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 Colloquium in American Government and Politics
(3-0) 3 hours credit.
An examination of the major issues, problems and processes of American government
and administration. May be repeated for credit when topics vary.

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.

5403 The Politics of Planning in American Government
(3-0) 3 hours credit.
An examination of the use of planning at the local, state, and federal levels as a tool in
public policy formation. Topics include: the growth of state and local planning in response
to federal programs, the use of planning by interest groups, the role of planning in executive-
legislative relations.

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, admin-
istrative rule making, discretion and hearings; freedom of information; and judicial review
of administrative rulings.
174 / Political Science

Sociology

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 Seminar in 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. May be repeated for credit when the topics vary.

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)

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.

5153 Seminar in the Cultural Pluralism of the Southwest
(3-0) 3 hours credit.
Investigation of institutional, demographic, cultural and social-psychological aspects of the principal minority groups of the American Southwest. Examination of group identity, inter-group relations and social change.

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.

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.
INDEX

Academic
- Records, release of, 61
- Standing, 55
Accommodations, Living, for students, 44
Accounting and Business Data Systems
- Division of, 77
Accounting, course descriptions, 78
- Master of Professional Accounting Degree, 77
Accounting (Public/Management), 78
- concentration, 78
Accreditation, 25
Activities, Student, 42
Adding Courses, 54
Address, change of, 61
Administration
- UT San Antonio, 13
- UT System, 12
Administrative staff, 14
Admission, 48
- application dates, 51
- as graduate degree-seeking students, 48
- for certificate endorsements, 51
- as special student at the graduate level, 49
- as summer transient student at the graduate level, 49
- of international students, 50
- procedures, 51
- re-admission policies and procedures, 52
- for teacher certification, 51
- to candidacy, 65
- university-wide graduate requirements, 64
Anthropology
- MA degree, 136
- course descriptions, 137
Application
- dates, 51
- for a degree, 67
Art and Design
- Division of, 91
Art
- course descriptions, 92
Art History and Criticism
- course descriptions, 93
Athletics, Intercollegiate, 44
Auditing
- courses, 55
- fee for, 34
Bad Check Charge, 33
Behavioral and Cultural Sciences
- Division of, 110
Bicultural-Bilingual Studies
- MA degree, 145
- course descriptions, 148
- Division of, 145
Bicultural-Bilingual Teacher Education, concentration, 145
Bicultural Studies, concentration, 146
Biology
- MS degree, 122
- course descriptions, 123
Board of Regents
- Rules and Regulations, 42
- UT System Administration, 12
Bookstore, UT San Antonio, 28
Business Administration
- Master’s Degree in Business, 74
- Master’s Degree in Inter-American Management, 75
Business, College of, 74
Business Data Systems
- course descriptions, 81
Business Law
- course descriptions, 82
Cafeteria, UT San Antonio, 28
Calendar, UT San Antonio, 3
Cancellation of Enrollment, 56
Candidacy, Admission to, 65
Career Planning and Placement Center, 43
- fee, 36
Catalog of Graduation, 65
Center for Learning and Development Research in Education, 27
Center for Studies in Business, Economics, and Human Resources, 26
Center for Applied Research and Technology, 26
Center for Archaeological Research, 27
Certification Student Admission as a graduate-level teacher, 51
Change
of address, 61
of degree, 60
of grades, 59
of major, 60
of name, 61

Charges
bad check, 33
payment of, 30
replacement of student identification card, 33
transcript, 33

Chemistry
MS degree, 110
course descriptions, 112
Classification System, Graduate Student, 56
Class Participation Policy, 60
College Work, previous declaration of, 51

Comparative Literature
course descriptions, 103

Comprehensive Examination, 66
Computing Resources, 25
Computer Science
course descriptions, 128
Computer Science/Systems Design, Masters Degree, 126
course descriptions, 135

Correspondence and extension courses, 65

Counseling Center, 42
Course numbering system, 57

Courses
adding, 54
auditing, 55
correspondence and extension, 65
counted for another degree, 65
dropping, 54
repeating, 57

Credit
by examination, 65
limitation on undergraduate credit counted toward Master's degree, 65
time limitation on applying credit toward Master's degree, 68
transfer of, 64

Criminal Justice
course descriptions, 171

Curriculum and Instruction
concentration, 152
course descriptions, 155

Deans, 13
Debts Owed The University, 39
Declaration of previous college work attempted, 51

Degree
additional, 68
application for, 67
change of, 60
fee for application, 32
limitation on undergraduate credit counted toward Master's, 65
options for Master's degree, 66
regulations, 63
student, 48
time limitation on applying credit toward Master's degree, 68
University-wide requirements for Master's degree, 64

Degree Programs for 1984-86, Summary of, 69
Deposit, General Property, 36
Directory Information, 45
Dishonesty, Scholastic, 60
Division Directors, 15

Dropping Courses, 54

Duplicate Fee Receipt, 36

Early Childhood and Elementary Education
course descriptions, 152

Economics and Finance
Division of, 82

Economics
course descriptions, 82

Education
MA degree, 152
course descriptions, 159
Division of, 152

Educational Management
course descriptions, 160

Educational Psychology
course descriptions, 162

Educational Psychology/Counseling and Guidance
course descriptions, 153
History
MA degree, 140
course descriptions, 141
History of UT San Antonio, 23
Hours
attempted, 57
earned, 57
Identification Card, 44
Identification Card, replacement
of, charge, 33
“Incomplete,” grades of, 58
Information Directory, 184
Institutions of Higher Education,
concentration, 153
Insurance, Professional
Liability (malpractice), 37
Interamerican Management
MBA degree, 75
Intercollegiate Athletics, 44
International Students, 45
admission of, 50
tuition rate schedule for, 30
Intramural and Recreational
Activities, 44
John Peace Library, 25
Laboratory Fee, 33
Late Registration, 54
Late Registration fee, 33
Library Fines, 33
Life Sciences, Division of, 122
Limitation on Undergraduate
Credit Counted Toward a
Master’s degree, 65
Linguistics
course descriptions, 104
Living Accommodations for
students, 44
Lost and Found, 45
Major, change of, 60
Management and Marketing
Division of, 86
Management
course descriptions, 86
Marketing
course descriptions, 89
Master’s Degrees
additional, 68
limitation on undergraduate
credit toward, 65
options for, 66
thesis requirements, 67
time limitation on applying
credit toward, 68
University-wide requirements, 64
Mathematics
course descriptions, 129
Mathematics,
MS degree, 126
Mathematics,
Computer Science and Systems
Design,
Division of, 126
Media Resources, 28
Music
course descriptions, 107
Division of, 106
Master’s degree, 106
Name, change of, 61
Natural Resources, MS degree, 117
course descriptions, 118
Nonresidents, tuition rate schedulie
for, 30
"No Report," grade of, 59
Numbering System, course, 57
Options for Master’s degrees, 66
Organization, UT San Antonio, 24
Orientation, 45
Parking Fees, 34
Part-time student, 57
Penalty of Tuition under Incorrect
Residence Classification, 32
Physical Instruction Laboratory Fee, 35
Placement Center, 37
Political Science
course descriptions, 173
Postponement of Final Examination
Procedures, 60
Prerequisites, 57
Professional Accounting, Master’s
degree, 77
Public Administration,
course descriptions, 169
Public Administration,
Master’s Degree, 168
Purpose and Philosophy of UT
San Antonio, 23
Re-admission Policies and
Procedures, 52
Refund Policy, 39
Regents
Board of, 12
Rules and Regulations, 42
Registration, 54
   late, 54
late fee, 33
Regulations
   Master's degree, 63
   residence, 31
Reinstatement, petition for, 56
Release of Transcripts and Academic Records, 61
Repeating Courses, 57
Reports, grade, 59
Requirements for Master's degree, University-wide, 64
Requirements for Thesis, 67
Research Center for the Arts and Humanities, 27
Residence
   incorrect, penalty for, 32
   regulations, 31
Residents, tuition rate schedule for, 30
Scholastic Dishonesty, 60
Sciences and Mathematics, College of, 110
Secondary Education
course descriptions, 167
Social and Behavioral Sciences, College of, 136
Social and Policy Sciences, Division of, 168
Sociology
course descriptions, 174
Spanish
   MA degree, 99
course descriptions, 100
Spanish Language
   concentration, 99
Statistics
course descriptions, 132
Student
   student activities, 42
   graduate classification system, 56
gymnasium and facility use fee, 35
degree seeking, 48
full-time and part-time, 57
identification card, 44
identification card replacement of, 33
charge, 33
service fee, 32
Students, Institutional Policies Concerning, 41
   athletics, Intercollegiate, 44
counseling center, 42
finanical aid, 43
handicapped, 45
health services, 42
identification cards, 44
international, 45
living accommodations, 44
lost and found, 45
placement center, 43
responsibilities under the Rules and Regulations of the Board of Regents, 42
Summary of Graduate Degree Programs and Support Areas for 1984-86, 69
Supplementary and Special Fees, 33
Support Areas, Summary of, 69
Systems Design
course descriptions, 134
Tax, concentration, 78
Teacher Placement Service, 44
fees, 37
Tennis Center fee, 35
Testing Center, 43
Thesis
   binding fee, 33
   requirements, 67
Time Limitation on Applying Credit Toward a Master's degree, 68
Transcripts, UT San Antonio, 61
charge for, 33
release of, 61
Transfer of Credit, 64
Transient Student admission as, 49
definition of, 49
Tuition, 29
   concurrent, 31
   exception from, 37
   foreign students, 30
   nonresidents, 30
   payment and refund policies, 30
   payment of, 30
   penalty under incorrect residence classification, 32
   residence regulations, 31
   residents, 31
   schedule of rates for residents, nonresidents, and international students, 30
Verification of Enrollment, 55
Withdrawal Procedures, 56
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.

<table>
<thead>
<tr>
<th>Academic Advisement</th>
<th>College Deans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Degree Programs and Courses</td>
<td>College Deans</td>
</tr>
<tr>
<td>Admission</td>
<td></td>
</tr>
<tr>
<td>Undergraduate and Graduate</td>
<td>Director of Admissions</td>
</tr>
<tr>
<td>Career Planning</td>
<td>Director of Career Planning and Placement Center</td>
</tr>
<tr>
<td>Change in Enrollment</td>
<td>Registrar</td>
</tr>
<tr>
<td>Continuing Education</td>
<td>College Deans</td>
</tr>
<tr>
<td>Degree Application</td>
<td>Registrar</td>
</tr>
<tr>
<td>Financial Aid, Loans, or Scholarships</td>
<td>Director of Student Financial Aid</td>
</tr>
<tr>
<td>Financial Matters</td>
<td>Business Manager</td>
</tr>
<tr>
<td>General Information</td>
<td>Director of Admissions</td>
</tr>
<tr>
<td>Handicapped Students</td>
<td>Director of Student Services</td>
</tr>
<tr>
<td>Health Services</td>
<td>Student Health Center</td>
</tr>
<tr>
<td>International Students</td>
<td>Director of Student Services</td>
</tr>
<tr>
<td>Parking</td>
<td>University Police</td>
</tr>
<tr>
<td>Placement Service</td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td>Director, Office of Teacher Certification and Placement</td>
</tr>
<tr>
<td>Non-Teacher</td>
<td>Director of Career Planning and Placement Center</td>
</tr>
<tr>
<td>Psychological Counseling</td>
<td>Director of Counseling Center</td>
</tr>
<tr>
<td>Recreational Activities</td>
<td>Director of Athletics</td>
</tr>
<tr>
<td>Refunds</td>
<td>Business Manager</td>
</tr>
<tr>
<td>Registration</td>
<td>Registrar</td>
</tr>
<tr>
<td>Residency</td>
<td>Registrar</td>
</tr>
<tr>
<td>Student Activities</td>
<td>Dean of Students</td>
</tr>
<tr>
<td>Student Employment</td>
<td>Director of Student Financial Aid</td>
</tr>
<tr>
<td>Student Services, General</td>
<td>Dean of Students</td>
</tr>
<tr>
<td>Teacher Certification Program</td>
<td>Director, Office of Teacher Certification and Placement</td>
</tr>
<tr>
<td>Transfer of Credit</td>
<td>Registrar</td>
</tr>
<tr>
<td>Transcripts</td>
<td>Registrar</td>
</tr>
<tr>
<td>Veterans’ Affairs</td>
<td>Registrar</td>
</tr>
<tr>
<td>Withdrawal from University</td>
<td>Registrar</td>
</tr>
</tbody>
</table>