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.
GRADUATE CATALOG 1980-82

Published Monthly September-April
and three times in May by
THE UNIVERSITY OF TEXAS AT SAN ANTONIO
Volume VIII  May 1980  Number 6
Second Class Postage Paid at San Antonio, Texas
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, on the basis of race, color, national origin, religion, or sex be excluded from participation in, be denied the benefits of, or be subject to discrimination under, any program or activity sponsored or conducted by The University of Texas System or any of its component institutions.
I. CALENDAR
GRADUATE

FALL SEMESTER, 1980

August 20-21 Wednesday-Thursday. Registration, Orientation, Advise-

ment.¹


August 29 Friday. Last day to add a class without special permis-

sion. Last day for 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 1 Monday. Holiday.

September 8 Monday. Last day to withdraw and receive a 70% refund

tuition and fees.

September 10 Wednesday. Last day to add a class. Census date.

September 15 Monday. Last day to withdraw and receive a 50% refund

tuition and fees.

September 22 Monday. Last day to withdraw and receive a 25% refund

tuition and fees.

October 1 Wednesday. DEADLINE FOR FALL 1980 GRADUATES

TO APPLY FOR GRADUATION.

October 3 Friday. Last day to drop an individual course with an au-

tomatic grade of "W." Drops after this date must have in-

structor approval and a grade of "W" or "F" assigned.

October 24 Friday. Deadline for submission of preliminary draft of

thesis.

November 18 Tuesday. Deadline for submission of final copy of thesis.

November 27-29 Thursday-Saturday. Thanksgiving Holidays.

December 1 Monday. Last day to drop an individual course or

withdraw from The University.

December 3 Wednesday. Deadline to file approved thesis with Dean's

Office.

December 8-13 Monday-Saturday. Final Examinations.

December 13 Saturday. Semester closes.

SPRING SEMESTER, 1981

January 7-8 Wednesday-Thursday. Registration, Orientation, Advise-

ment.¹

January 12 Monday. Classes begin.

January 16 Friday. Last day to add a class without special permis-

sion. Last day for 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.

January 23 Friday. Last day to withdraw and receive a 70% refund of

tuition and fees.

January 27 Tuesday. Last day to add a class. Census date.

¹A more detailed calendar for registration, orientation, and advisement will be issued by the Registrar.
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 30</td>
<td>Friday. Last day to withdraw and receive a 50% refund of tuition and fees.</td>
</tr>
<tr>
<td>February 6</td>
<td>Friday. Last day to withdraw and receive a 25% refund of tuition and fees.</td>
</tr>
<tr>
<td>February 16</td>
<td>Monday. DEADLINE FOR SPRING 1981 GRADUATES TO APPLY FOR GRADUATION.</td>
</tr>
<tr>
<td>February 20</td>
<td>Friday. Last day to drop an individual course with an automatic grade of &quot;W.&quot; Drops after this date must have instructor approval and a grade of &quot;W&quot; or &quot;F&quot; assigned.</td>
</tr>
<tr>
<td>March 16-21</td>
<td>Monday. Deadline for submission of preliminary draft of thesis.</td>
</tr>
<tr>
<td>April 14</td>
<td>Tuesday. Deadline for submission of final copy of thesis.</td>
</tr>
<tr>
<td>April 27</td>
<td>Monday. Last day to drop an individual course or withdraw from The University.</td>
</tr>
<tr>
<td>April 29</td>
<td>Wednesday. Deadline to file approved thesis with Dean's Office.</td>
</tr>
<tr>
<td>May 4-9</td>
<td>Monday-Saturday. Final Examinations.</td>
</tr>
<tr>
<td>May 9</td>
<td>Saturday. Semester closes.</td>
</tr>
<tr>
<td>May 10</td>
<td>Sunday. Commencement.</td>
</tr>
<tr>
<td>SUMMER SESSION, 1981</td>
<td></td>
</tr>
<tr>
<td>May 28</td>
<td>Thursday. Registration, Orientation, Advisement for all three terms.</td>
</tr>
<tr>
<td>June 1</td>
<td>Monday. Classes begin for first five-week or ten-week terms.</td>
</tr>
<tr>
<td>June 2</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 3</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>
<tr>
<td>June 4</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.</td>
</tr>
<tr>
<td>June 8</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 12</td>
<td>Friday. Last day to drop an individual course with an automatic grade of &quot;W&quot; in the first five-week or ten-week terms. Drops after this date must have instructor approval and a grade of &quot;W&quot; or &quot;F&quot; assigned.</td>
</tr>
<tr>
<td>June 23</td>
<td>Tuesday. Deadline for filing original approved thesis with Dean's Office for students in first five-week term.</td>
</tr>
<tr>
<td>June 29</td>
<td>Monday. Last day to drop an individual course or withdraw from The University for the first five-week term.</td>
</tr>
</tbody>
</table>

2A more detailed calendar for registration, orientation, and advisement will be issued by the Registrar.
July 2-3  Thursday-Friday. Final examinations for courses in the first five-week term.
July 3  Friday. Close of first five-week term.
July 6  Monday. Registration for courses in second five-week term.
July 7  Tuesday. Classes begin for second five-week term.
July 8  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 9  Thursday. Last day to withdraw from courses in the second five-week term and receive an 80% refund of tuition and fees.
July 10  Friday. Last day to add a class in the second five-week term. Census date.
July 14  Tuesday. Last day to withdraw from courses in the second five-week term and receive a 50% refund of tuition and fees.
July 15  Wednesday. Last day for all Summer graduates to apply for their degree.
July 20  Monday. Last day to drop an individual course with an automatic grade of "W" in the second five-week term. Drops after this date must have instructor approval and a grade of "W" or "F" assigned.
August 3  Monday. Deadline for filing original approved thesis with Dean's Office for students in ten-week term and second five-week term.
August 5  Wednesday. Last day to drop an individual course or withdraw from The University for the ten-week or second five-week terms.
August 10-11  Monday-Tuesday. Final examinations for courses in the ten-week and second five-week terms.

FALL SEMESTER, 1981

August 19-20  Wednesday-Thursday. Registration, Orientation, Advisement.¹
August 24  Monday. Classes begin.
August 28  Friday. Last day to add a class without special permission. Last day for 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 7  Monday. Holiday.
September 8  Tuesday. Last day to withdraw and receive a 70% refund of tuition and fees.

¹A more detailed calendar for registration, orientation, and advisement will be issued by the Registrar.
September 9  Wednesday. Last day to add a class. Census date.
September 14 Monday. Last day to withdraw and receive a 50% refund of tuition and fees.
September 21 Monday. Last day to withdraw and receive a 25% refund of tuition and fees.
October 1 Thursday. DEADLINE FOR FALL 1981 GRADUATES TO APPLY FOR GRADUATION.
October 2 Friday. Last day to drop an individual course with an automatic grade of "W." Drops after this date must have instructor approval and a grade of "W" or "F" assigned.
October 23 Friday. Deadline for submission of preliminary draft of thesis.
November 17 Tuesday. Deadline for submission of final copy of thesis.
November 26-28 Thursday-Saturday. Thanksgiving Holidays.
November 30 Monday. Last day to drop an individual course or withdraw from The University.
December 2 Wednesday. Deadline to file approved thesis with Dean's Office.
December 7-12 Monday-Saturday. Final Examinations.
December 12 Saturday. Semester closes.

SPRING SEMESTER, 1982

January 6-7 Wednesday-Thursday. Registration, Orientation, Advisement.4
January 11 Monday. Classes begin.
January 15 Friday. Last day to add a class without special permission. Last day for 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.
January 22 Friday. Last day to withdraw and receive a 70% refund of tuition and fees.
January 26 Tuesday. Last day to add a class. Census date.
January 29 Friday. Last day to withdraw and receive a 50% refund of tuition and fees.
February 5 Friday. Last day to withdraw and receive a 25% refund of tuition and fees.
February 15 Monday. DEADLINE FOR SPRING 1982 GRADUATES TO APPLY FOR GRADUATION.
February 19 Friday. Last day to drop an individual course with an automatic grade of "W." Drops after this date must have instructor approval and a grade of "W" or "F" assigned.
March 15-20 Monday-Saturday. Spring vacation.
March 22 Monday. Deadline for submission of preliminary draft of thesis.
April 13 Tuesday. Deadline for submission of final copy of thesis.

4A more detailed calendar for registration, orientation, and advisement will be issued by the Registrar.
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 26</td>
<td>Monday. Last day to drop an individual course or withdraw from The University.</td>
</tr>
<tr>
<td>April 28</td>
<td>Wednesday. Deadline to file approved thesis with Dean's Office.</td>
</tr>
<tr>
<td>May 3-8</td>
<td>Monday-Saturday. Final Examinations.</td>
</tr>
<tr>
<td>May 8</td>
<td>Saturday. Semester closes.</td>
</tr>
<tr>
<td>May 9</td>
<td>Sunday. Commencement.</td>
</tr>
</tbody>
</table>

**SUMMER SESSION, 1982**

| May 27     | Thursday. Registration, Orientation, Advisement for all three terms.   |
| May 31     | Monday. Classes begin for first five-week or ten-week terms.           |
| June 1     | 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.       |
| June 2     | 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. |
| June 3     | 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. |
| June 7     | 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 11    | Friday. Last day to drop an individual course with an automatic grade of "W" in the first five-week or ten-week terms. Drops after this date must have instructor approval and a grade of "W" or "F" assigned. |
| June 22    | Tuesday. Deadline for filing original approved thesis with Dean's Office for students in first five-week term. |
| June 28    | Monday. Last day to drop an individual course or withdraw from The University for the first five-week term. |
| July 1-2   | Thursday-Friday. Final examinations for courses in first five-week terms. |
| July 2     | Friday. Close of first five-week term.                                |
| July 5     | Monday. Registration for courses in second five-week term.            |
| July 6     | Tuesday. Classes begin for second five-week term.                     |
| July 7     | 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 8     | Thursday. Last day to withdraw from courses in the second five-week term and receive an 80% refund of tuition and fees. |

*More detailed calendar for registration, orientation, and advisement will be issued by the Registrar.*
July 9  Friday. Last day to add a class in the second five-week term. Census date.

July 13 Tuesday. Last day to withdraw from courses in the second five-week term and receive a 50% refund of tuition and fees.

July 15 Thursday. Last day for all Summer graduates to apply for their degree.

July 20 Tuesday. Last day to drop an individual course with an automatic grade of "W" in the second five-week term. Drops after this date must have instructor approval and a grade of "W" or "F" assigned.

August 2 Monday. Deadline for filing original approved thesis with Dean's Office for students in ten-week term and second five-week term.

August 4 Wednesday. Last day to drop an individual course or withdraw from The University for the ten-week or second five-week terms.

August 9-10 Monday-Tuesday. Final examinations for courses in the ten-week and second five-week terms.

II. GENERAL INFORMATION
THE UNIVERSITY OF TEXAS SYSTEM

BOARD OF REGENTS

Dan C. Williams, Chairman
Thos. H. Law, Vice-Chairman
Betty Anne Thedford, Secretary

TERMS EXPIRE JANUARY 1981

Thos. H. Law ....................................... Fort Worth
Walter G. Sterling ..................................... Houston
Dan C. Williams ........................................ Dallas

TERMS EXPIRE JANUARY 1983

Jane Weinert Blumberg (Mrs. Roland K.) ................... Seguin
Sterling H. Fly, Jr., M.D. .................................. Uvalde
Jess Hay .............................................. Dallas

TERMS EXPIRE JANUARY 1985

Jon P. Newton ......................................... Austin
James L. Powell ........................................ Fort McKavett
Howard N. Richards ..................................... Beaumont

SYSTEM ADMINISTRATION

E. D. Walker, Chancellor
THE UNIVERSITY OF TEXAS AT SAN ANTONIO

EXECUTIVE OFFICERS

James W. Wagener ................................... President
Gordon H. Lamb .............. Vice President for Academic Affairs
Gary L. Hammon .............. Vice President for Business Affairs

DEANS

E. D. Hodo ......................... Dean, College of Business
Michael F. Kelly ............... Acting Dean, College of Fine and Applied Arts
Joseph Michel ................. Dean, College of Multidisciplinary Studies
Frank Pino, Jr. ............... Acting Dean, College of Humanities and Social Sciences
Bernard P. Sagik ........ Dean, College of Sciences and Mathematics

Dora G. Hauser ....................... Dean of Students
William C. Lindley .......... Dean, Division of Continuing Education
ADMINISTRATIVE STAFF

Val D. Adams .......................................... Bursar
Vincent L. Avalone .................................. Director of Career Planning and Placement Center
John H. Brown ........................................ Director of Admissions and Registrar
Manuel C. Chávez .................................... Chief of Police
David A. Collins ..................................... Assistant Director of Admissions
Rudy A. Davalos ...................................... Director of Athletics
Ira L. Dewitt .......................................... Director of Procedures and Audits
Margaret V. Drake .................................... Director of Institutional Studies
James A. Forester ................................. Director of Community and Student Affairs
William B. Gearhart ................................ Assistant Dean
College of Sciences and Mathematics
Salvador H. Gomez .................................... Director of Special Services
Samuel M. Gonzales .................................. Director of Student Financial Aid
Patricia A. Graham .................................. Assistant Dean of Students
Frederick C. Hample .................................. Associate Registrar
Arnold C. Hayden .................................. Assistant Dean, College of Business
Ronald D. Hedrick .................................. Director of the Counseling Center
Michael F. Kelly ..................................... Director of Libraries
Wayne W. Laughery .................................. Director
Teacher Certification and Placement
George E. Mangrem .................................. Director of Physical Plant
John W. Massey ....................................... Personnel Director
Richard S. Moore ................................... Director of Purchasing
Jerry L. Phillips .................................... Radiation Safety Officer
Frank Pino, Jr. ........................................ Assistant Vice President for Academic Affairs
Joe A. Powell .......................................... Business Manager
William E. Stern ...................................... Budget Officer
Berry Sutherland ..................................... Associate Dean
College of Multidisciplinary Studies
Shirley A. Wills ................................. Director of News and Information
Armando B. Zepeda ................................ Director of the Lutcher Center
DIVISION DIRECTORS

COLLEGE OF BUSINESS
Leslie L. McNells .................. Division of Accounting and Business Data Systems
Lila J. Flory-Truett. .............. Acting, Division of Economics and Finance
William D. Litzinger ............. Division of Management and Marketing

COLLEGE OF FINE AND APPLIED ARTS
Ronald C. Binks .................. Division of Art and Design
Clarence J. Stuessy ................ Division of Music

COLLEGE OF HUMANITIES AND SOCIAL SCIENCES
Alan E. Craven. ................... Division of English, Classics, and Philosophy
Beverly J. Gibbs ................... Acting, Division of Foreign Languages
Thomas C. Greaves ................ Division of Social Sciences

COLLEGE OF MULTIDISCIPLINARY STUDIES
Curtis W. Hayes .................. Acting, Division of Bicultural-Bilingual Studies
Thomas J. Cleaver ................ Division of Education
Richard S. Howe ................... Division of Environmental Studies
Berry Sutherland ................. Division of Special Programs

COLLEGE OF SCIENCES AND MATHEMATICS
Wayne E. Magee ................... Division of Allied Health and Life Sciences
Charles A. Sorber ................ Acting, Division of Earth and Physical Sciences
Stanley G. Wayment .............. Division of Mathematics, Computer Science, and Systems Design
GRADUATE FACULTY

COLLEGE OF BUSINESS

Division of Accounting and Business Data Systems

Leslie L. McNelis, Professor, B.B.A., University of Oklahoma; M.B.A., University of Tulsa; Ph.D., University of Oklahoma
Ruth H. Bullard, Associate Professor, B.S., Mary Hardin-Baylor College; M.B.A., Ph.D., University of Texas at Austin
E. Lou Curry, Associate Professor, B.S., West Virginia University; J.D., St. Mary's University; LL.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
Hans B. Johnson, Associate Professor, B.S., B.A., University of Nebraska; M.B.A., University of Michigan; Ph.D., University of Nebraska
James U. Ross, Associate Professor, B.A., J.D., University of Texas at Austin
Martha A. Fasci, Assistant 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, Assistant Professor, B.A., Cornell University; M.S., Purdue University; Ph.D., University of Texas at Austin
Joseph R. Oliver, Assistant Professor, B.S., B.A., M.A., Ph.D., University of Missouri-Columbia
G. W. K. Willis, Assistant Professor, B.B.A., M.B.A., Ph.D., Texas A & M University

Division of Economics and Finance

Antonio Furino, Professor, B.A., M.A., Ph.D., University of Houston
E. Douglas Hodo, Professor, B.B.A., M.S., Ph.D., University of Mississippi
Lewis Mandell, Professor, B.A., City College of New York; M.A., Northwestern University; Ph.D., University of Texas at Austin
Dale B. Truett, Professor, B.A., Purdue University; M.A., Ph.D., University of Texas at Austin
Paul N. Bartlett, Jr., Associate Professor, B.A., Lamar State University; M.A., Louisiana State University; J.D., University of Texas at Austin
Lila J. Flory-Truett, Associate Professor, B.A., Kansas State University; M.A., Ph.D., University of Iowa
William L. Scott, Associate Professor, B.B.A., North Texas State University; M.A., Austin College; Ph.D., University of Houston
Linda E. Sorber, Assistant Professor, A.B., Randolph-Macon Woman's College; J.D., University of Texas at Austin
John A. Swiger, Assistant Professor, B.S., University of Richmond; Ph.D., University of North Carolina
Alejandro Velez, Assistant Professor, B.A., American University; M.A., Ph.D., University of Florida
Kenneth E. Weiher, Assistant Professor, A.B., College of William and Mary; M.A., Ph.D., Indiana University

Division of Management and Marketing

A. W. Hunt, III, Professor, B.S., M.S., Baylor University; Ph.D., University of Texas at Austin
William D. Litzinger, Professor, B.S., New York University; M.B.A., University of Pennsylvania; D.B.A., University of Southern California
Patricia L. Burr, Associate Professor, B.B.A., North Texas State University; M.A., Texas Woman's University; Ph.D., North Texas State University
Sammy B. Gould, Associate Professor, B.S., Ohio University; M.B.A., University of Colorado; Ph.D., Michigan State University
Sandra L. James, Associate Professor, B.B.A., M.B.A., St. Mary's University; Ph.D., University of Texas at Austin
GRADUATE FACULTY

William G. Mitchell, Associate Professor, M.B.A., University of Chicago; D.B.A., Arizona State University
Charles D. Porterfield, Associate Professor, B.A., M.B.A., North Texas State University; Ph.D., Louisiana State University
Paul Preston, Associate Professor, B.S., Florida Atlantic University; M.B.A., University of Miami; D.B.A., University of Colorado
Gary C. Raffaele, Associate Professor, B.S., State University of New York; M.B.A., University of Texas at Austin; D.B.A., Harvard Graduate School of Business
Joel G. Saegert, Associate Professor, B.A., Ph.D., University of Texas at Austin
Richard B. Wadsworth, Associate Professor, B.S., Texas A & M University; M.S., Ph.D., University of Arizona
William T. Flannery, Assistant Professor, B.S., M.S., Ph.D., University of Houston
John W. Gowens, II, Assistant Professor, B.S., U.S. Naval Academy; M.B.A., D.B.A., Arizona State University
Brian L. Hawkins, Assistant Professor, B.A., M.A., Michigan State University; Ph.D., Purdue University
Marye T. Hilger, Assistant Professor, B.A., B.B.A., M.B.A., Ph.D., University of Texas at Austin
Larry E. Penley, Assistant Professor, B.A., M.A., Wake Forest University; Ph.D., University of Georgia
Norman P. Smith, Assistant Professor, B.A., Ph.D., University of California

COLLEGE OF FINE AND APPLIED ARTS

Division of Art and Design
Ronald C. Binks, Professor, B.F.A., Rhode Island School of Design; M.F.A., Yale School of Art and Architecture
Charles T. Field, Professor, B.A., Stanford University; M.F.A., University of Washington
Jacinto Quirarte, Professor, B.A., M.A., San Francisco State College; Ph.D., Universidad Nacional Autónoma de México
Kazuya Sakai, Visiting Professor, Waseda University, Japan
Stephen J. Reynolds, Associate Professor, B.F.A., M.F.A., Colorado University; M.A., Denver University
Judith B. Sobre, Associate Professor, B.A., New York University; M.A., Ph.D., Harvard University
Neil D. Maurer, Assistant Professor, B.A., Brown University; M.F.A., Rhode Island School of Design
Robert J. Mullen, Assistant Professor, A.B., University of Notre Dame; M.A., George Washington University, Howard University; Ph.D., University of Maryland
Felipe Reyes, Jr., Assistant Professor, B.A., Trinity University; M.F.A., University of Michigan
Michael Heffel, Visiting Assistant Professor, B.F.A., Oklahoma State University; M.F.A., Indiana University

Division of Music
Bess E. Hieronymus, Professor, B.M., Mary Hardin-Baylor College; M.A., Smith College; D.M.A., University of Texas at Austin
Gordon H. Lamb, Professor, B.M.E., Simpson College; M.M., University of Nebraska; Ph.D., University of Iowa
James R. Riley, Associate Professor, B.M., Centenary College; M.M., North Texas State University; D.M.A., University of Texas at Austin
Michael A. Fink, Assistant Professor, B.M., University of Southern California; M.M., New England Conservatory of Music; Ph.D., University of Southern California
Michael P. Gulltinan, Assistant Professor, B.M., M.M., D.M.A., Eastman School of Music
Harald Stark, Adjunct Professor, B.S., Nebraska State Teachers College; M.A., University of Iowa
COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

Division of English, Classics, and Philosophy

Alan E. Craven, Professor, B.A., M.A., Ph.D., University of Kansas
Gary Lane, Associate Professor, B.A., Oberlin College; M.A., Ph.D., University of Michigan
Bonnie K. Lyons, Associate Professor, B.A., M.A., Ph.D., Tulane University
John A. Stoler, Associate Professor, B.A., Ripon College; M.A., San Francisco State College; Ph.D., University of Arizona
Nikhil Bhattacharya, Assistant Professor, B.S., Presidency College; M.S., University of Calcutta; Ph.D., Boston University
Andrew G. Bjelland, Assistant Professor, A.B., Immaculate Conception Seminary; Ph.D., St. Louis University
Duane F. Conley, Assistant Professor, B.A., University of Texas at Austin; M. Phil., Ph.D., Yale University
Helen Dry, Assistant Professor, B.A., Southern Methodist University; M.A., Ph.D., University of Texas at Austin
Allan M. Emery, Assistant Professor, B.A., Rice University; M.A., Ph.D., Cornell University
Dewey R. Faulkner, Assistant Professor, B.S., Virginia Polytechnic Institute; Ph.D., University of North Carolina
John Hackett, Assistant Professor, B.A., Holy Cross College; Ph.D., St. Louis University
Theresa M. Kelley, Assistant Professor, B.A., University of Washington; M.A., Ph.D., Northwestern University
Charles W. Kneupper, Assistant Professor, B.A., Texas Lutheran College; M.A., Ph.D., Bowling Green State University
Margaret McBride, Assistant Professor, B.A., University of Kansas; M.A., Ph.D., University of Pennsylvania
Arthur R. Miller, Assistant Professor, B.A., West Liberty State College; M.A., Ph.D., Michigan State University
David R. Saliba, Assistant Professor, B.A., University of Texas at Austin; Ph.D., Brown University
Marjorie R. Smelstor, S.C., Assistant Professor, B.S., College of Mount Saint Joseph-on-the-Ohio; M.A., Ph.D., University of Wisconsin

Division of Foreign Languages

Ricardo F. Benavides, Professor, B.A., M.A., Universidad de Chile; Ph.D., Universidad Central de Madrid
Beverly J. Gibbs, Professor, B.A., M.A., University of Michigan; Ph.D., University of Wisconsin at Madison
Jack Himmelblau, Professor, A.B., M.A., University of Chicago; Ph.D., University of Michigan
Joseph Michel, Professor, B.A., De LaSalle College; M.A., Universidad Nacional Autónoma de México; Ph.D., University of New Mexico
Seth L. Wolitz, Professor, B.A., University of Chicago; Ph.D., Yale University
Theodore L. Kassier, Associate Professor, A.B., Columbia University; A.M., Ph.D., Princeton University
Frank Pino, Jr., Associate Professor, B.A., M.A., Arizona State University; Ph.D., Northwestern University
Rilda L. Baker, Assistant Professor, B.A., University of Nebraska; M.A., Ph.D., University of Texas at Austin
Steven G. Kellman, Assistant Professor, B.A., State University of New York; M.A., Ph.D., University of California
James P. Lantolf, Assistant Professor, B.S., University of Scranton; M.A., Ph.D., Pennsylvania State University
Marc D. Silberman, Assistant Professor, B.A., University of Minnesota; A.M., Ph.D., Indiana University

Division of Social Sciences

Richard E. W. Adams, Professor, B.A., University of New Mexico; M.A., Ph.D., Harvard University
Thomas C. Greaves, Professor, B.A., University of Washington; Ph.D., Cornell University
Thomas R. Hester, Professor, B.A., University of Texas at Austin; Ph.D., University of California at Berkeley
David J. Schneider, Professor, B.A., Wabash College; Ph.D., Stanford University
Félix D. Almaraz, Jr., Associate Professor, B.A., M.A., St. Mary's University; Ph.D., University of New Mexico
Raymond R. Baird, Associate Professor, A.B., Eastern New Mexico University; M.S., Ph.D., University of Washington
Thomas A. Baylis, Associate Professor, A.B., Duke University; M.A., Ph.D., University of California at Berkeley
John A. Booth, Associate Professor, B.A., Rice University; M.A., Ph.D., University of Texas at Austin
David R. Johnson, Associate Professor, B.A., University of Illinois, M.A., Ph.D., University of Chicago
Woodruff D. Smith, Associate Professor, B.A., Harvard University; M.A., Ph.D., University of Chicago
Murriel A. Atkin, Assistant Professor, B.A., Sarah Lawrence College; M.Phil., Ph.D., Yale University
Sharon N. Bamartt, Assistant Professor, B.A., Brandeis University; M.A., University of Pittsburgh; Ph.D., University of Chicago
Steven R. Boyd, Assistant Professor, B.A., Claremont Men's College; M.A., Ph.D., University of Wisconsin
James R. Dykes, Jr., Assistant Professor, B.A., Ph.D., University of Texas at Austin
Catherine R. Edwards, Assistant Professor, B.A., University of California, Santa Barbara; M.A., C.Phil., University of California, Los Angeles
Richard A. Gambitta, Assistant Professor, B.A., M.A., Ph.D., Syracuse University
Robert Alan Goldberg, Assistant Professor, B.A., Arizona State University; M.A., Ph.D., University of Wisconsin
Joel D. Gunn, Assistant Professor, B.A., M.A., University of Kansas; Ph.D., University of Pittsburgh
Richard J. Harris, Assistant Professor, B.A., Macalester College, M.A., Ph.D., Cornell University
Richard C. Jones, Assistant Professor, B.S., Austin Peay State University; M.A., Indiana University; Ph.D., Ohio State University
Joanne S. Kaufmann, Assistant Professor, A.B., University of California; A.M., Ph.D., Harvard University
Kenneth Levi, Assistant Professor, B.A., A.M., Ph.D., University of Michigan
Robert A. Milne, Assistant Professor, B.A., University of Texas at Austin; M.A., Ph.D., Syracuse University
Sidney Plotkin, Assistant Professor, B.A., M.A., Ph.D., City University of New York
Daniel C. Rigney, Assistant Professor, B.A., M.A., Ph.D., University of Texas at Austin
Michael P. Ryan, Assistant Professor, B.A., Pomona College; Ph.D., Stanford University
R. Michael Stevens, Assistant Professor, B.A., University of the South; M.A., Ph.D., Temple University
María-Luisa Urdaneta, Assistant Professor, B.A., M.A., University of Texas at Austin; Ph.D., Southern Methodist University
James L. Wadlington, Assistant Professor, B.S., A.M., Ph.D., University of Illinois
Judith L. Whatley, Assistant Professor, B.A., University of Texas at Austin; Ph.D., Duke University

COLLEGE OF MULTIDISCIPLINARY STUDIES

Division of Bicultural-Bilingual Studies

Curtis W. Hayes, Professor, B.A., M.A., California State University at Long Beach; Ph.D., University of Texas at Austin
Rodolfo Jacobson, Professor, M.A., Universidad de Panamá; M.A., Ph.D., University of Michigan
Albar A. Peña, Professor, B.S., University of Texas at Austin; M.A., Texas A & I University; Ph.D., University of Texas at Austin
Mauricio E. Charpenel, Associate Professor, B.A., Central Missouri State; M.A., Universidad Nacional Autónoma de México; M.L.S., Ph.D., University of Texas at Austin
Carolyn L. Kessler, Associate Professor, B.A., St. Mary-of-the-Woods College; M.S., Ph.D., Georgetown University

Walter E. Smith, Visiting Assistant Professor, B.A., Stanford University; M.A., Ph.D., University of Texas at Austin

Virginia A. Streiff, Visiting Assistant Professor, B.A., Arizona State University; M.A., University of Montana; Ph.D., Ohio University

Division of Education

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

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

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

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

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

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

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

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

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

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

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

M. Taylor Whittier, Associate Professor, A.B., A.M., Ph.D., University of Chicago

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

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

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

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

Barbara M. Gonzalez, Assistant Professor, B.A., M.A., Ph.D., University of Texas at Austin

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

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

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

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

Margaret O. Paculisen, Assistant Professor, B.S., M.A., University of Texas at Austin

James E. Schnitz, Assistant Professor, B.A., M.A., Ph.D., Northwestern University

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

Jessie T. Zapata, Assistant Professor, A.A., San Antonio College; B.A., University of Texas at Austin; M.Ed., Texas Tech University; Ph.D., Arizona State University

Charles H. Broughton, Lecturer, B.S., Sul Ross State University; M.A., Colorado College; Ed.D., Nova University

John A. Michel, Lecturer, B.A., St. Mary’s University; M.Ed., Our Lady of the Lake College; Ed.D., Oklahoma State University

Division of Environmental Studies

J. Leland Hepworth, Professor, B.S., Utah State University; M.S., University of Idaho; Ph.D., Oklahoma State University
Richard S. Howe, Professor, B.S., University of Kentucky; M.S., Ph.D., University of Wisconsin at Madison
Chia Shun Shih, Professor, B.S., Taiwan, C.K. University; M.S., Ph.D., University of Texas at Austin
John W. Adams, Associate Professor, B.S., M.S., Utah State University; Ph.D., Washington State University
Richard R. Tangum, Associate Professor, B.Arch., Texas Tech University; M.Arch., Virginia Polytechnic Institute, D.E.D., Texas A & M University
Henry G. Cisneros, Assistant Professor, B.A., M.U.R.P., Texas A & M University; M.P.A., Harvard University; D.P.A., George Washington University
Daniel O. Hogenauer, Assistant Professor, B.S., Haverford College; Ph.D., Johns Hopkins University
Louise B. Woltz, Assistant Professor, B.S., Cornell University; Ph.D., University of California, Berkeley
Robert R. Ashcroft, Lecturer, B.A., University of Oklahoma; M.A., The University of Texas at San Antonio
Alexander Caragonne, Lecturer, B.A., University of Texas at Austin; M.A., Cornell University
Robert O. Clark, Lecturer, B.A., University of California; M.A., University of Chicago; Ph.D., University of Denver
Charles L. Cotrell, Lecturer, B.A., M.A., St. Mary's University; Ph.D., University of Arizona
C. Thomas Koch, Lecturer, B.S., M.S., University of Texas at Austin
James M. Saunders, Lecturer, B.S., L.L.B., Southern Methodist University
James M. Scoggins, Lecturer, B.A., University of Houston; M.A., Case-Western Reserve University, Cleveland

Division of Special Programs
Ronald H. Rogers, Professor, B.S., Florida State University; M.S., Michigan State University; M.P.A., University of Southern California; Ph.D., Claremont Graduate School
James D. Calder, Associate Professor, B.A., University of Maryland; M.S., California State University of Long Beach; Ph.D., Claremont Graduate School
Wallace T. Ferguson, Assistant Professor, B.A., University of Texas at Austin; J.D., The University of Texas Law School
Richard A. Lawrence, Assistant Professor, B.A., Bethel College, St. Paul; M.A., St. Mary's University; Ph.D., Sam Houston State University
James R. Gillespie, Lecturer, B.A., Tulane University of Louisiana; J.D., St. Mary's University School of Law

COLLEGE OF SCIENCES AND MATHEMATICS
Division of Allied Health and Life Sciences
Wayne E. Magee, Professor, B.A., Kalamazoo College; M.S., Ph.D., University of Wisconsin at Madison
Bernard P. Sagik, Professor, B.S., College of City of New York; M.S., Ph.D., University of Illinois
June E. Ayling, Associate Professor, B.S., Ph.D., University of California
M. Neal Guentzel, Associate Professor, B.A., M.A., Ph.D., University of Texas at Austin
Helen V. Oujesky, Associate Professor, B.A., B.S., Texas Woman's University; M.A., Texas Christian University; Ph.D., Texas Woman's University
Jerry L. Phillips, Associate Professor, B.A., University of Colorado; Ph.D., Colorado State University
Paul H. Rodriguez, Associate Professor, B.S., Creighton University; M.S., University of New Mexico; Ph.D., University of Rhode Island
Oscar W. Van Auken, Associate Professor, B.S., High Point College, North Carolina; M.S., Ph.D., University of Utah
Marilyn Subach, Assistant Professor, B.S., Arizona State University; M.S., University of Southern California, Los Angeles; Ph.D., University of California, Davis
Helen J. Cronenberger, Assistant Professor, B.A., B.S., University of Texas at Austin; Ph.D., University of Houston; MT (ASCP) Methodist Hospital, Houston, Texas
GRADUATE FACULTY

James A. DeBoer, Assistant Professor, B.A., University of South Florida; Ph.D., Oregon State University
Arnold H. Hassen, Assistant Professor, B.S., Brooklyn College; Ph.D., Indiana University
Samuel A. Ramirez, Assistant Professor, B.A., University of Texas at El Paso; M.S., Texas Tech University; Ph.D., Indiana University
James T. Rutledge, Assistant Professor, A.B., University of California, Berkeley; Ph.D., University of California, Davis.

Division of Earth and Physical Sciences
Charles Howard, Professor, B.S., Ph.D., University of Wisconsin at Madison
B. S. Thyagarajan, Professor, B.S., Loyola College, India; M.S., Ph.D., Presidency College, India
Marvin L. Chatkoff, Associate Professor, B.A., University of Oklahoma; M.S., University of Southern California; Ph.D., University of New Mexico
Petr Hochmann, Associate Professor, M.S., Charles' University, Prague; Ph.D., Czechoslovak Academy of Science, Prague
Herbert B. Silber, Associate Professor, B.S., M.S., Lehigh University; Ph.D., University of California, Davis
Charles A. Sorber, Associate Professor, B.S., M.S., Pennsylvania State University; Ph.D., University of Texas at Austin
Philip L. Stotter, Associate Professor, A.B., Harvard College, Cambridge; A.M., Ph.D., Columbia University, New York
Miroslav Synak, Associate Professor, B.S., M.S., Charles' University, Prague; Ph.D., University of Chicago
James Ogden Jones, Assistant Professor, B.S., Midwestern State University; M.S., Baylor University; Ph.D., University of Iowa
Raymond Kellman, Assistant Professor, B.S., St. Peter's College; Ph.D., University of Colorado
Robert D. Renthal, Assistant Professor, B.A., Princeton University; Ph.D., Columbia University
Michael Twerdochlib, Assistant Professor, B.S., Florida State University; M.S., University of Wisconsin; Ph.D., Ohio University
Robert F. Williams, Assistant Professor, B.A., Gettysburg College; Ph.D., Emory University
David E. Minter, Visiting Assistant Professor, B.S., M.S., Stephen F. Austin State University; Ph.D., University of Texas at Austin

Division of Mathematics, Computer Science, and Systems Design
Manuel P. Beniozabal, Professor, B.S., Rockhurst College; M.S., Notre Dame University; Ph.D., University of California at Los Angeles
Lucio Tavernini, Professor, B.S., Heald Engineering College; M.S., University of Colorado; M.S., Ph.D., University of Wisconsin at Madison
Joseph E. Valentine, Professor, B.S., Southwest Missouri State; M.S., University of Illinois; Ph.D., University of Missouri
Stanley G. Wayment, Professor, B.S., Brigham Young University; M.S., University of Utah; M.S., Stanford University; Ph.D., University of Utah
William B. Gearhart, Associate Professor, B.S., M.S., Ph.D., Cornell University
Mario J. Gonzalez, Jr., Associate Professor, B.S.E.E., M.S.E.E., Ph.D., University of Texas at Austin
Hugh B. Maynard, Associate Professor, B.S., California Institute of Technology; M.S., Ph.D., University of California
Steven Robbins, Associate Professor, S.B., S.M., Ph.D., Massachusetts Institute of Technology
Cedrick V. W. Armstrong, Assistant Professor, B.S., Australian National University, Canberra, Australia; M.S., University of London; Ph.D., University of Edinburgh
Scott R. Cannon, Assistant Professor, B.A., University of Utah; Ph.D., University of Utah Medical School
Clinton J. Kolaski, Assistant Professor, B.S., M.S., Ph.D., University of Wisconsin at Madison
Kay A. Robbins, Assistant Professor, S.B., Ph.D., Massachusetts Institute of Technology
John G. Romo, Assistant Professor, B.A., Trinity University; M.S., Ph.D., Oklahoma State University

James D. Thomas, Assistant Professor, B.S., M.S., St. Louis University; M.A., Yeshiva University; Ph.D., Pennsylvania State University

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

Cheng-Hsuan Yuan, Assistant Professor, B.S., National Taiwan University; M.E.S., Ph.D., North Carolina State University

Steven B. Assa, Lecturer, A.B., University of Rochester; Ph.D., Ohio State University

Stephen J. Hitzfelder, Lecturer, B.S., St. Mary’s University; Ph.D., Texas A & M University

Robert L. Mason, Lecturer, B.S., St. Mary’s University; Ph.D., Southern Methodist University
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 9453 undergraduate and graduate students in September of 1979. The University had awarded 3888 degrees at the end of August 1979.

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, 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 Business Affairs provides the President with advice and counsel on fiscal affairs and has direct responsibility for the business operation of The University including operation of the physical plant. This officer is responsible for budget preparation and analysis.

Operational administration of the graduate and undergraduate programs of The University is the responsibility of the Deans of the five Colleges. The Deans report 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 located in the Division of Continuing Education. The Division is administered by a Dean who reports directly to the President and who is responsible for developing and operating all continuing education activities. The Division develops, promotes, coordinates, evaluates, and provides financial and logistical support for conferences, institutes, short courses, workshops, seminars, and special training programs. The Division has no permanently assigned faculty. Instructors for the various activities are selected from one or more of the five Colleges within The University of Texas at San Antonio, or from institutions or organizations outside The University.

ACCREDITATION

The University of Texas at San Antonio was granted full accreditation at the graduate level by the Southern Association of Colleges and Schools in December 1974 and full accreditation at the undergraduate level in December 1976. Because accreditation applies retroactively within the year awarded, all UT San Antonio degrees have been awarded by an accredited 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 1979, the collections of the library include 358,000 books and periodicals, either bound or in microform; 71,000 federal, state and local documents; and 128,000 volume equivalents in various microform collections. The library subscribes to approximately 2,200 periodicals and receives as a designated depository a wide variety of federal, state, and local documents. In addition, the library has extensive holdings in microform of governmental documents, and research reports. 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, which are on permanent deposit in the Special Collections department.

The public service staff includes professional librarians with subject specialities who offer reference and bibliographic assistance to students and faculty. 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 goal 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.

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

The Computer Center provides modern computational facilities for research and academic programs. An intermediate scale computer is available for student and faculty use. An IBM 370 model 148 is being utilized to support the academic computing requirements.

THE LUTCHER CENTER

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

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

THE 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 ARCHAEOLOGICAL RESEARCH

The Center for Archaeological Research (in the Division of Social Sciences, College of Humanities and Social Sciences) was established in September, 1974. Among its objectives are: (1) to provide the opportunity for students to train in archaeology; (2) promoting archaeological research in the South and South Central Texas region; (3) carrying out archaeological surveys and assignments for federal and state agencies as required by legislation and executive orders; (4) aiding 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 80 volumes in the Center’s four publication series: Archaeological Survey Reports, Regional Studies, Special Reports, and Guidebooks in Archaeology. The Center was administered more than 160 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 and a multi-year study at the Maya site of Colha, Belize, in Central America. The Center has also helped to organize and support regional archaeological surveys and
excavations and has participated in local, state, and international archaeological conferences.

**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 applied sciences for faculty and graduate students, to provide an educational opportunity whereby individual skills can be developed to fill employers’ needs for applied scientists, and to provide research-related services for the community at large. Although CART is a part of the College of Sciences and Mathematics, it interacts with the faculty of other Colleges and with the local research community through the Southwest Research Consortium.

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

The CART staff includes faculty, research associates, students, and technical and support personnel. Emphasis is on interdisciplinary research in the earth, life, and physical sciences. Efforts have been concentrated in applied physics, biological, chemical, environmental, energy, and health-related studies.

Specifically, research teams have been formed recently to conduct investigations in such diverse areas as "Health Effects Associated with the Application of Wastewater to Land," "Synthetic Studies Toward an Efficient Total Synthesis of Quinine," "Avian Activity Patterns and Population Density on and Adjacent to Proposed Sanitary Landfill Sites," "Atmosphere Explorer Data Analysis and Electrodynamics Explorer Instrument Development," "PLAID — Panel Layout Automated Interactive Device," and "Alternative Water Disinfection Schemes for Reduced Trihalomethane Formation."

**CENTER FOR LEARNING AND DEVELOPMENT RESEARCH IN EDUCATION**

The Center for Learning and Development Research in Education, located in the College of Multidisciplinary Studies, is designed to stimulate basic and applied research in learning and development, particularly as it 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 consists of identifying and coordinating faculty, student, and community interests, needs, and resources. Faculty members from the College and The University, with interest and training in learning and development in education, participate in projects related to the Center’s activity.

**RESEARCH CENTER FOR THE ARTS**

The Research Center for the Arts was established in the College of Fine and Applied Arts on September 1, 1977. The Center’s activities encompass the visual and performing arts (studio art, architecture, and music), art and architectural history, and art criticism. A primary focus of the Center is on the latter disciplines with special reference to the study of the Iberian and Interamerican arts. These disciplines by their
scholarly nature form the nucleus of the Center's activities. 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 Spain, Portugal, and the Americas. The Center by so doing takes advantage of the strengths of the courses and programs of the College and The University. The Center fosters professional research in the visual and performing arts (studio art, architecture, and music) in general and in Iberian and Interamerican art historical research in particular. It provides the opportunities for faculty and students in the College to continue their own 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-Education Building adjacent to the Student Lounge. The Bookstore provides a complete stock of all required and recommended books for UT San Antonio courses. In addition, the University Bookstore carries a complete line of general school supplies, writing instruments, art materials, soft goods, decals, greeting cards, and a variety of gift items.

THE UNIVERSITY CAFETERIA

The University Cafeteria, located in the heart of the campus on the first level of the John Peace Library, provides meals and fountain service to the university community. Owned and operated by UT San Antonio, the Cafeteria serves breakfast, hot lunches, and features short orders, soft drinks, and fountain items. Catering for both large and small groups is available. Further information may be obtained from the Cafeteria.
III. TUITION, FEES, CHARGES, PENALTIES AND DEPOSITS
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. 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 $20.00. 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 tuition 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 Taken</th>
<th>Residents of Texas</th>
<th>U.S. Citizens</th>
<th>Foreign Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>50.00</td>
<td>40.00</td>
<td>40.00</td>
</tr>
<tr>
<td>2</td>
<td>50.00</td>
<td>80.00</td>
<td>80.00</td>
</tr>
<tr>
<td>3</td>
<td>50.00</td>
<td>120.00</td>
<td>120.00</td>
</tr>
<tr>
<td>4</td>
<td>50.00</td>
<td>160.00</td>
<td>160.00</td>
</tr>
<tr>
<td>5</td>
<td>50.00</td>
<td>200.00</td>
<td>200.00</td>
</tr>
<tr>
<td>6</td>
<td>50.00</td>
<td>240.00</td>
<td>240.00</td>
</tr>
<tr>
<td>7</td>
<td>50.00</td>
<td>280.00</td>
<td>280.00</td>
</tr>
<tr>
<td>8</td>
<td>50.00</td>
<td>320.00</td>
<td>320.00</td>
</tr>
<tr>
<td>9</td>
<td>50.00</td>
<td>360.00</td>
<td>360.00</td>
</tr>
<tr>
<td>10</td>
<td>50.00</td>
<td>400.00</td>
<td>400.00</td>
</tr>
<tr>
<td>11</td>
<td>50.00</td>
<td>440.00</td>
<td>440.00</td>
</tr>
</tbody>
</table>

All tuition charges and fees are subject to change without notice.

*See the Exemplon from Tuition and Fees section in this section of the catalog.

*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 Director of Admissions and Registrar.
TUITION, FEES, CHARGES, PENALTIES AND DEPOSITS / 33

<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>
</tr>
<tr>
<td>7</td>
<td>28.00</td>
<td>50.00</td>
</tr>
<tr>
<td>8</td>
<td>32.00</td>
<td>50.00</td>
</tr>
<tr>
<td>9</td>
<td>36.00</td>
<td>50.00</td>
</tr>
<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

TUITION SUMMER SESSION

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 non-

---

*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.
responsible will be made in accordance with the Texas Education Code. If the applicant has any doubt about his status, he/she should consult the Director of Admissions and Registrar prior to registration. There can be no change in residence classification without the express authorization of the Registrar.

**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*</th>
<th>STUDENT SERVICE FEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6.00</td>
<td>2.50</td>
</tr>
<tr>
<td>2</td>
<td>12.00</td>
<td>5.00</td>
</tr>
<tr>
<td>3</td>
<td>18.00</td>
<td>7.50</td>
</tr>
<tr>
<td>4</td>
<td>24.00</td>
<td>10.00</td>
</tr>
<tr>
<td>5</td>
<td>30.00</td>
<td>12.50</td>
</tr>
<tr>
<td>6</td>
<td>36.00</td>
<td>15.00</td>
</tr>
<tr>
<td>7</td>
<td>42.00</td>
<td>17.50</td>
</tr>
<tr>
<td>8</td>
<td>48.00</td>
<td>20.00</td>
</tr>
<tr>
<td>9</td>
<td>54.00</td>
<td>22.50</td>
</tr>
<tr>
<td>10</td>
<td>60.00</td>
<td>25.00</td>
</tr>
<tr>
<td>11</td>
<td>66.00</td>
<td>27.50</td>
</tr>
<tr>
<td>12</td>
<td>72.00</td>
<td>30.00</td>
</tr>
<tr>
<td>13</td>
<td>78.00</td>
<td>30.00</td>
</tr>
<tr>
<td>14</td>
<td>84.00</td>
<td>30.00</td>
</tr>
<tr>
<td>15</td>
<td>90.00</td>
<td>30.00</td>
</tr>
<tr>
<td>Each Additional Hour</td>
<td>6.00</td>
<td>-0-</td>
</tr>
</tbody>
</table>

**STUDENT UNION FEE**

Student Union Fees are as follows:
- $9.00 per student, each regular session; $4.50 each summer session, 1980-81.
- $12.00 per student, each regular session; $6.00 each summer session, 1981-82.

**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 degree will be conferred.
student plans to graduate. This fee must be paid only once for the same degree. The fee 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.

**THESIS BINDING FEE**
A fee of $5.00 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 is not refundable.

**LIBRARY DEPOSIT FOR LIMITED BORROWER'S CARD**
Limited Borrowers are defined in the Appendix of this catalog. By depositing $15.00, a Texas resident may obtain a Limited Borrower's Card for borrowing unrestricted materials in person; this deposit is also required for non-students who are auditing UT San Antonio courses and who wish Library privileges. Persons holding a Limited Borrower's Card are charged a fee of $3.00 (plus copying costs, if any) for each interlibrary loan request. The $15.00 deposit is refundable upon return of the Borrower's Card.

**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 $5.00 is assessed for each returned check to offset the cost of handling dishonored checks. The University will not accept a check from a student who unwittingly 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.

---

*See the Exemption from Tuition and Fees in this section of the catalog.
*Borrowing and lending regulations of the John Peace Library are available in the Library.
LABORATORY FEE
In certain courses a laboratory fee, not to exceed the actual cost of materials and supplies and not less than $2.00 nor more than $8.00, may be charged. When a laboratory fee is charged, the schedule of classes indicates the associated fee. For each course which involves the use of computers in instruction, a laboratory fee of $8.00 is charged.

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

AUDITING FEE
All auditors of courses must submit an approved Request for Audit Form to the Registrar.
Students registered at UT San Antonio may, with the approval of the instructor and Dean of the College in which the course is offered, audit courses by paying an auditing fee of $5.00 per course. The audit fee is not refundable.
Upon approval of a Request for Audit Form, a non-student auditor must pay an auditing fee of $25.00 per course. The fee is not refundable. Non-students over 65 are permitted to audit without paying a fee, provided space is available and a Request for Audit Form is approved. Non-student auditors who wish library privileges may receive them by paying a non-student library deposit (Limited Borrower's Deposit) of $15.00 at the John Peace Library.
Permission to audit may be obtained and fees paid only during the late registration period.

PARKING FEES
Parking fees for students are as follows:

<table>
<thead>
<tr>
<th>Class</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class B</td>
<td>$15.00 Student parking permit</td>
</tr>
<tr>
<td></td>
<td>10.00 if purchased during the spring semester</td>
</tr>
<tr>
<td></td>
<td>5.00 if purchased during summer session</td>
</tr>
<tr>
<td>Class D</td>
<td>6.00 Motorcycles, motor scooters, motor bicycles</td>
</tr>
<tr>
<td></td>
<td>4.00 if purchased during the spring semester</td>
</tr>
<tr>
<td></td>
<td>2.00 if purchased during summer session</td>
</tr>
<tr>
<td>Class M</td>
<td>1.00 Bicycles</td>
</tr>
<tr>
<td></td>
<td>.50 for less than twelve months</td>
</tr>
</tbody>
</table>

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

All vehicles parking 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.

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.

ТЕNNIS 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.
TUITION, FEES, CHARGES, PENALTIES AND DEPOSITS

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. UT San Antonio alumni are assessed a $3.00 annual fee for the same services. Both students and alumni receive, as part of their registration, the preparation, duplication and maintenance of three sets of credentials. A fee of $1.00 is assessed for each additional set requested by the registrant during his/her current year of registration.

PROFESSIONAL LIABILITY (MALPRACTICE) INSURANCE

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

EXEMPTION FROM TUITION AND FEES

The Statutes of the State of Texas prescribe certain cases in which students can be exempted from tuition and/or certain fees. The various types of exemptions 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.

Exemption of Texas ex-service personnel. Legal residents of Texas are exempted from tuition and all fees and charges, except property deposit fees, student services fees and any fees or charges for lodging, board, or clothing, when they meet all the following criteria prior to the end of the registration period for the term that the exemption is claimed:

1. They have resided in Texas for a period of not less than twelve (12) months prior to the date of registration.
2. They served in the armed forces or in certain auxiliary services in World War I, World War II, the Korean conflict, or the Cold War. If service was in the Cold War, they must have served on active military duty (other than for training) for more than 180 days.
3. They were bona fide legal residents of the state at the time of entering service.
4. They were honorably discharged from service (those who served in World War II and who were discharged because of being over the age of thirty-eight or because of a personal request are not eligible for this exemption).
5. They are not eligible for education benefits provided for veterans by the United States Government.
Benefits for children of Texas veterans. Exemption from payment of tuition and all fees and charges, except property deposit fees, student services fees and any fees or charges for lodging, board or clothing, is extended to children of members of the armed forces who were killed in action or died while in the service in World War II or in the Korean conflict or in the Cold War and to orphans of members of the Texas National Guard killed since January 1, 1946, while on active duty.

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

Exemption of certain deaf and blind students. Blind or deaf persons who are Texas residents are, under certain conditions, exempt from payment of tuition and all fees and charges, except any fees or charges for lodging, board, or clothing.

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

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

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, but will be assessed a $15.00 matriculation fee. This fee will be deducted from the balance of tuition and refundable fees owed to the student.

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 and is not assessed the $15.00 matriculation fee.

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

10These refund percentages are applicable to tuition, the supplementary fees, the general fee, laboratory fees, and the student service fees.
or she originally was registered. Tuition and applicable fees for added courses are billed to the student.

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.
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 HEALTH SERVICES

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

When The University is in session, a registered nurse is on duty during class hours, and, when needed, a referral is made to a physician for medical treatment. The University Student Health Center has only limited medical capabilities. Students are advised to carry health and accident insurance. Out-of-town students should have documents to verify insurance coverage to avoid possible delays in obtaining medical treatment.

COUNSELING CENTER

The Counseling Center provides professional services which are designed to help meet the personal and developmental needs of 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

Graduate students may receive financial assistance from scholarships, College Work Study, and loans through the Office of Student Financial Aid. Financial aid counseling for students is an integral part of the total financial aid function. Applicants are urged to contact the UT San Antonio Office of Student Financial Aid for guidance concerning opportunities for self-help and sources of financial aid that will assist them in making decisions about financing their education.

UT San Antonio participates in the following state and federal financial aid programs for which graduate students may apply: College Work Study, UTSA State Scholarship, Federally Insured Student Loan, Hinson-Hazlewood Student Loan, National Direct Student Loan, and the Law Enforcement Education Program. Short-term emergency loans of up to $120 are also available but must be repaid during the semester in which they are made.

Application forms and information on how to apply for each of these programs are available at the Office of Student Financial Aid.

Scholastic aptitude and financial need are important factors in determining eligibility for most programs. Financial need is determined by a need analysis received after the applicant completes and submits a financial statement to the College Scholarship Service or the American College Testing Program.

Each financial aid applicant must:

1. Be officially admitted to The University.
2. File a financial statement with the College Scholarship Service or the American College Testing Program. The financial statement is not required if the applicant is applying for only the Federally Insured Student Loan or the Law Enforcement Education Program.
3. File a UT San Antonio application for Financial Aid with the Office of Student Financial Aid.
4. Meet deadlines set by the Office of Student Financial Aid.

The Texas Rehabilitation Commission offers assistance for tuition and non-refundable fees to students who have certain disabling conditions provided their vocational objectives have been approved by a Texas Rehabilitation Commission counselor. Examples of such conditions are orthopedic deformities, emotional disorders, diabetes, epilepsy, heart conditions, etc. Other services are also available to assist the handicapped student to become employable. Application for such services should be made at the Texas Rehabilitation Commission, 1222 N. Main Avenue, San Antonio, Texas.

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 representa-

¹Fees for services of the Career Planning and Placement Center are set forth in Section III of this catalog.
tives from business, industry, and government to explore professional employment opportunities.

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

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

TEACHER PLACEMENT SERVICE

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

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

ATHLETICS

The athletic program at UT San Antonio consists of general recreational activities and intramural programs. 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 a 400-meter synthetic track with a grass playing infield and a tennis center. Students are able to participate in tennis, basketball, 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 Office of Community and Student Affairs to assist students in finding living accommodations in the San Antonio community.

IDENTIFICATION CARDS

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

DIRECTORY INFORMATION

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

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

2Fees for the Teacher Placement Service are set forth in Section III of this catalog.
INSTITUTIONAL POLICIES CONCERNING STUDENTS / 47

Student’s Name
Current and Permanent Address
Telephone Listing
Date and Place of Birth
Major field of study, including concentration
Classification
Schedule of Classes and Number of Hours Enrolled
Participation in Officially Recognized Activities and Sports
Weight and Height of Members of Athletic Teams
Dates of Attendance
Degrees and Awards Received
Most Recent Previous Educational Agency or Institution Attended

A student’s consent is presumed, unless a written request to restrict the information as confidential is made by the student in the Registrar’s Office on a prescribed form no earlier than the first day of registration and no later than the 12th class day in a semester, or the 4th class day in a summer term. This consent or restriction remains in effect for the duration of the semester or summer term and must be refiled each subsequent semester or term that the student wishes to restrict the information. In those cases where a student files a request for restriction of information, such information is treated as confidential, and, in response to public inquiries, The University will verify only whether an individual is currently enrolled at The University.

For more specific information concerning the disclosure, review, release, and confidentiality of student records under the Family Educational Rights and Privacy Act of 1974, 20 U.S.C. Section 12329, 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.

LOST AND FOUND

All personal articles found at The University are placed in the Office of the Dean of Students. Items can be claimed upon proper identification of ownership. After a two week period, all unclaimed articles are transferred to the Campus Security Office.

HANDICAPPED STUDENTS

Handicapped students requiring special assistance should contact the Office of the Dean of Students, Division of Community and Student Affairs.

INTERNATIONAL STUDENTS

Foreign students who are enrolled at UT San Antonio should contact the Office of the Dean of Students, Division of Community and Student Affairs, for assistance. If possible, contact should be made prior to arrival in the San Antonio area.
V. ADMISSION REQUIREMENTS
ADMISSION

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

ADMISSION AS A GRADUATE DEGREE-SEEKING STUDENT

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

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

Conditional Admission. An applicant desiring to work toward a graduate degree in an area in which his or her previous preparation is insufficient to permit unconditional admission may be admitted conditionally to the graduate degree program with the stipulation that course work or other study as determined by the appropriate Committee on Graduate Studies, the Division Director, and the Dean, will be undertaken to remove deficiencies and that such make-up work will be in addition to the regular degree requirements. Any conditions placed on the student's admission are stated in the admission notice. An individual seeking admission as a graduate degree-seeking student whose grade-point average is less than that specified for unconditional admission may be admitted conditionally to a graduate degree program upon the recommendation of the appropriate Committee on Graduate Studies, the Division Director, and the Dean, who will assign conditions regarding the number of semester hours to be taken and the minimum grade-point average to be maintained before unconditional status may be attained. In no case may the grade-point average condition be lower than that required for a student to remain in The University as a graduate (degree-seeking, or special) student. (See the section on Academic Standing.) The student is expected to remove conditions by the end of the first full semester of enrollment. If

1 An individual review of the applicant's background is made by the appropriate Committee on Graduate Studies, the Division Director, and the Dean for the program to which admission is being sought. A committee may be appointed to examine a student in his or her previous preparation before an application to enter the program is approved. No student is admitted in the absence of a favorable recommendation by the appropriate Committee on Graduate Studies, the Division Director of the program, and the Dean of the College.
they are not met, the student may be barred from continuation in the graduate program. An applicant who fails to meet the requirements for unconditional admission and is admitted on a conditional basis may be admitted on academic probation. If an applicant is not eligible for either unconditional or conditional admission, the applicant is denied admission as a graduate degree-seeking student. The appropriate Committee on Graduate Studies, the Division Director, and the Dean may recommend the applicant’s admission or denial of admission as a Special Graduate Student (see below).

Note: For Teacher Certification a student must obtain admission as either a graduate degree-seeking student or a special graduate student (or in certain cases as a transient student). See page 59 for details.

**ADMISSION AS A SPECIAL STUDENT AT THE GRADUATE LEVEL**

A special student at the graduate level is one admitted to The University for the purpose of enrolling in graduate and/or undergraduate courses without entering a degree or certification program. All academic requirements of this catalog apply to special students. An applicant who does not elect to enter a graduate-level degree program may seek permission to register as a special student in one or more of the Colleges. To be eligible for admission as a special student at the graduate level, an applicant must:

1. be in good standing at the last institution attended;
2. possess at least a bachelor’s degree from a regionally accredited college or university or an equivalent degree from a foreign institution;
3. have grade-point averages of 3.0 or higher (on a 4.0 scale) in the last 30 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. An applicant who does not meet the above requirements may be recommended for admission as a special student at the graduate level by the appropriate Committee on Graduate Studies, the Division Director, and the Dean(s) of the College(s) in which courses will be taken. In the latter case, admission may be on academic probation.

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 and they have the approval of the course instructor(s). Students holding bachelor’s degrees who are admitted as special undergraduate students may enroll in undergraduate courses only. If they wish to take courses at the graduate level, they must apply and be admitted as special graduate students.

Credit earned as a special student may be applied toward a Master’s degree 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. The approval of the Director, Office of Teacher Certification and Placement is required before credit earned as a special student can be applied to a graduate-level teacher certification program.

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 TRANSIENT STUDENT AT THE GRADUATE LEVEL**

An applicant who wishes to enroll, normally for one 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 transient student at the graduate level, the applicant must hold at least a baccalaureate degree from a regionally accredited college or university and be in good standing at the last institution attended.
Transient students may register for any courses for which they have the necessary prerequisites, the approval of the course instructor(s), and in which space is available. A student registered in this capacity normally cannot register for a subsequent term unless he or she has been admitted as a degree-seeking or special student.

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 or transient students. (An I-20 form is not issued to transient students.)

2. Submit scores from the Test of English as a Foreign Language (TOEFL) or successfully complete an intensive course in English from an accredited college or university in the United States. Students needing to take this test should write to the Educational Testing Service, Box 899, Princeton, New Jersey 08540, requesting information on taking the TOEFL. The code for The University of Texas at San Antonio is 6919. A minimum score of 550 on the TOEFL is required. Subsequent English tests and preparation may be required by a student's advisor if more work in English is necessary. TOEFL scores are not required for international students from countries where English is the primary language of instruction and the language spoken in the home by the indigenous population, nor are TOEFL scores required for non-citizens of the United States graduating from United States high schools, colleges, or universities with at least a high school diploma or a baccalaureate or higher degree.

3. Submit a statement guaranteeing the student's ability to pay all expenses while a student at The University, if attendance under the F-1 (student) visa is anticipated. The statement may be sent from a parent or guardian when endorsed by a bank or other reliable institution, or from a United States citizen who will accept responsibility for the student's financial needs.

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 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.

TEMPORARY ADMISSION

Graduates of U.S. or foreign institutions whose previous preparation cannot be evaluated adequately by admission deadlines may be granted temporary admission on academic probation. Such admission may be granted for one term only upon the favorable recommendations of the Dean(s) of the College(s) in which courses will be taken and the Vice President for Academic Affairs. If the student fails to be granted admission as a degree-seeking, special, or transient student, under the procedures set forth, the student is withdrawn for failure to meet admission requirements and is not allowed to register until admission requirements are met. Temporary admission is permitted only in rare cases.

Credit earned while under temporary admission may be applied toward a Master's degree and/or teacher certification program only after the student has been granted admission as a degree-seeking student or as a special graduate student and only when the credits earned for the courses have been approved by the appropriate
Committee on Graduate Studies, the Division Director, and the Dean of the College offering the degree program. The additional approval of the Director, Office of Teacher Certification and Placement is required before credit earned as a temporarily admitted student can be applied to a graduate certification program.

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, special graduate student (not special undergraduate student), or transient student (if the work will not span more than one semester). When unconditional or conditional 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. 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 the application dates may 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, 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 students to register during the first week of classes in a regular semester or during the first two class days of a summer term. Students who register late are charged an additional $5.00 the first day of late registration and an additional $2.50 per day thereafter with the maximum amount being $15.00 for any one term. This fee is non-refundable. Instructions for late registration are available at the Registrar's Office. Students are not permitted to register after the close of late registration.

Those students who register late are responsible for completing any work missed in the courses for which they enroll during the time the course was in session prior to their being registered. It may be necessary for late registrants to select courses in which to enroll from a reduced schedule since many courses will have been closed at their capacities.

ADDING COURSES

After registration, but during the first week of classes in a semester, or the first two class days in a summer term, a student may add a course only with the approval of the course instructor, the student's advisor, and the Director of the Division in which the course is offered. A special or transient student should seek approval of the course instructor and Dean of the College in which the course is offered. A certification student [or "a student seeking certification only"] should seek approval of the course instructor and the Director, Office of Teacher Certification and Placement. After the first week of classes and through the twelfth class day of any semester, or on the third or fourth class day of any summer term, the additional approval of the Dean of the College in which the course is offered is required. 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 term) do not appear on the student's transcript. A student who drops courses after the add/drop period and through the first six weeks of a semester or through the first ten days of a summer 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.
If a student finds it necessary to drop a course after the first six weeks of classes in a semester or after the tenth class day in a summer session, it is his/her responsibility to initiate and complete procedures for obtaining an approved withdrawal from the course. The forms for this purpose are available in the Registrar’s Office. A student who officially drops a course after the first six weeks of classes in a regular semester or after the tenth class day in a summer session must take the form to his/her instructor who will enter on it a grade of "W" if the student is passing the course at the time of withdrawal or a grade of "F" if he/she is failing the course at the time of withdrawal. In order for the action to be official, the student must file the approved form with the Registrar’s Office. Students may not drop individual courses or withdraw later than the last day of the week preceding final examinations.

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

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

The instructor may drop a student from the class for non-attendance when approved by the Dean of the College in which the course is offered. If the student is dropped by the instructor during the first six weeks of a semester or during the first ten days of a summer term, the student will receive a grade of "W." From the beginning of the seventh week of a semester and the eleventh day of a summer term, the instructor shall assign a grade of "W" if the student was passing at the time of the withdrawal or a grade of "F" if the student was failing at the time of the withdrawal.

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

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 after the add/drop period, but during the first six weeks of a semester or during the first ten days 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 six weeks of classes in a regular semester or after the tenth class day of a summer session will receive a grade of “W” for each class they are passing at the time of withdrawal and a grade of “F” for each class in which they are not passing at the time of withdrawal. Students may not withdraw from The University later than the first 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.

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.

Transient Graduate Student: A student who registers for courses in the summer session only or during one semester 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 in one of the above categories. 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 a summer term, or for five or more hours of graduate credit during an entire summer session.

Upon request, the Registrar may certify students as "full-time" during the term in which they intend to graduate if they are completing degree requirements, regardless of the number of hours involved. Such certifications normally are made only once. Students requesting full-time certification under this provision should realize that certain external agencies require a specific number of hours of actual enrollment in order for the student to be eligible for various benefits. In such cases, The University must certify the actual number of hours for which the student is enrolled. It should be further understood that students who are enrolled for a term and wish to utilize this provision can be certified as full-time only if the courses and/or hours are degree requirements and the courses and/or hours will complete all degree requirements if they are satisfactorily completed.

COURSE NUMBERING SYSTEM

All courses are designated by four-digit numbers following a two or three-letter abbreviation of the subject field. The first digit indicates the level of the course. All courses with a first digit of 1 or 2 are lower-division (freshman and sophomore) courses, and all courses with a first digit of 3 or 4 are upper-division (junior or senior) courses. All course numbers starting with 5 or 6 are graduate courses. The second and third digits are used within the Colleges by each Division to distinguish individual courses. The fourth digit indicates the semester hour value of the course.

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

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

**REPEATING COURSES**

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

**GRADING SYSTEM**

*Hours attempted.* The number of hours attempted is the total number of hours for which a student has enrolled and received grades of "A," "B," "C," "D," or "F" (see below).

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

*Grade-Point Average.* The UT San Antonio grade-point average (GPA) is determined by dividing the number of grade points earned at UT San Antonio by the number of semester hours attempted at UT San Antonio.

Credits and grades for work completed at other institutions and credits earned by examination are not included in the UT San Antonio grade-point average.

*Grade symbols and grade points.*

<table>
<thead>
<tr>
<th>Symbols</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
</tr>
<tr>
<td>CR</td>
<td>0</td>
</tr>
<tr>
<td>EP</td>
<td>0</td>
</tr>
<tr>
<td>W</td>
<td>0</td>
</tr>
<tr>
<td>IN</td>
<td>0</td>
</tr>
<tr>
<td>NR</td>
<td>0</td>
</tr>
</tbody>
</table>

**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 within one year of the time that the "Incomplete" grade is received and before the student's graduation. If the work is not completed within this time, the "Incomplete" remains on the student's record, and credit may be earned only when the student re-enrolls in the course and completes the entire course satisfactorily.

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

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

"NR" or "No Report." The grade "No Report" ("NR") may be assigned a student only by the Registrar. This symbol is assigned only when in unusual circumstances it is not possible to obtain the student's proper grade by the deadline necessary for processing grades at the close of the term and is replaced with the official grade as soon as possible.

REPORTING OF GRADES

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

GRADE REPORTS

The Registrar's Office mails final grades to students as soon as they are compiled after the close of each semester and each summer term. The grade report reflects the grade that appears on the instructor's final grade sheet; subsequent changes are not included. Grades are mailed to the address on file in the Registrar’s Office. Only one grade report is mailed; additional copies are not available.

CHANGE OF GRADES

Grade changes from "Incomplete" ("IN") to a letter grade must be made within the time limit provisions explained under "Explanation of Grade Symbols" in this catalog. A grade of "Incomplete" may be changed by the instructor within the time limits, by completing a Removal of Incomplete form and filing it with the Registrar’s Office.

Grade changes from "Postponement of Final Examination" ("EP") to a letter grade should be made as soon as possible after the student has taken the authorized postponed final examination. As explained under "Postponement of Final Examination Procedures,"
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 Division Director 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 recommend 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 Dean of the College in which a student is enrolled may initiate disciplinary proceedings.

TRANSCRIPTS

Official transcripts of all course work taken at The University of Texas at San Antonio are available at the Registrar's Office. Requests for transcripts must be in writing and must bear the signature of the student whose record is requested. A fee of $1.00 is charged for each copy of the transcripts and must be paid in advance. Transcripts from other institutions submitted to UT San Antonio become the property of The University and are not reproduced and/or mailed to other institutions, agencies, or individuals as an official transcript. Requests for unofficial copies of transcripts from other institutions may be made in accordance with the open record laws by filling out the required forms in the Registrar's Office and paying the fee.

Request for official transcript service will not be honored from students who have a financial obligation or other commitment outstanding to The University until the obligation is cleared.

RELEASE OF TRANSCRIPTS AND ACADEMIC RECORDS

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

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

CHANGE OF NAME

A student's name on official records at UT San Antonio is the name under which the student applied for admission, unless a Change of Name form has been processed through the Registrar's Office. Name change requests should be supported by appropriate legal documentation, except that upon marriage a student may declare the newly taken name.
CHANGE OF ADDRESS

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

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

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

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-level students wishing to satisfy TEA requirements for undergraduate certification programs by means of CEEB testing programs should petition the Office of the Vice President for Academic Affairs for such approval. 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 Admission 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, 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, or Master of Business Administration 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 theses 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. The degree application fee is required only once for the same degree.

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.

---

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 1980-82
The following graduate degree programs are available during 1980-82. 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 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

Environmental Management
Concentrations: (1) Management of Human Resources (2) Management of Natural Resources (3) Urban Studies

History

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

Master of Fine Arts Degree

Art

Master of Music

---

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

Biology
Chemistry
Environmental Management
  Concentrations: (1) Management of Human Resources
  (2) Management of Natural Resources
  (3) Urban Studies

Mathematics, Computer Science, and Systems Design

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 1980-82:

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

---

1 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 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, a core of professional courses or their equivalents. Students whose background is in business but who have completed the professional core courses or their equivalents five or more years prior to entering the program will be required to complete successfully or test out of the professional core courses. The professional courses 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 have an approximate composite score of 500 on the Graduate Management Admission Test (GMAT). Those who have not met the requirement of 18 semester hours of course work in the business area receive conditional admission to complete those professional courses or their equivalents which they are lacking. No credit for these courses may count toward degree requirements of the M.B.A. in Business.

The professional core courses are:

- 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

All applicants for admission to the M.B.A. Program in Business must take the Graduate Management Admission Test (GMAT) and submit results to the Admissions Office.

Degree Requirements. The M.B.A. program in Business requires 36 semester hours of work beyond any hours acquired in the above professional courses. All candidates for the M.B.A. Degree in Business are required to complete successfully the following core of 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

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

2Persons having an undergraduate degree in accounting or the equivalent must substitute an accounting elective for this course with the approval of the Director, Division of Accounting and Business Data Systems and the Dean of the College.
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 of the above core, 6 semester hours of electives as recommended by the Committee on Graduate Studies, and approved by the appropriate Division Director and 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 of the above core, and 12 semester hours of electives as approved by the Committee on Graduate Studies, and approved by the appropriate Division Director and 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. To achieve this end, specific interamerican content courses have been developed in the disciplines of accounting, management, marketing and finance. Arrangements with Latin American universities enable students to complete a portion of their work while residing outside the United States. 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 are encouraged to undertake Spanish language study concurrently with their work on the M.B.A. Degree in Interamerican Management.

**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.

**Degree Requirements.** All candidates for the M.B.A. Degree in Interamerican Management must complete the following core of 21 semester hours:

- ACC 5023 Accounting Analysis for Decision-Making
- ECO 5023 Managerial Economics
- ECO 5303 International Trade and Finance
- FIN 5023 Financial Management
- MGT 5023 Quantitative Methods in Business
- MGT 5903 Management Policy, Problems, and Trends
- MKT 5023 Marketing Management

In addition to the above core, students desiring an M.B.A. Degree in Interamerican Management must complete 6 semester hours of international courses as follows:

- FIN 5833 International Managerial Finance and Accounting
- MKT 5673 International Marketing and Management

To complete the program, students choose either an elective program of 9 semester hours in interamerican content courses as listed below or a combination of elective

---

4Persons 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 appropriate Division Director and Dean of the College.

5MGT 5903 will likely have a special section which will incorporate a computerized international business game to illustrate how business decisions are influenced by transnational transactions.
interamerican content courses and foreign study as recommended by the Committee on Graduate Studies and approved by the appropriate Division Director and Dean of the College. Normally the foreign study will be taken at a cooperating Latin American institution. An agreement is currently in effect with the Instituto Tecnologico y de Estudios Superiores de Monterrey and the Universidad de las Americas, Mexico City, to provide courses and workshops.

Interamerican Content Elective Courses:

- ACC 5683  Accounting and Tax Practices in Latin America
- FIN 5673  Interamerican Banking and Financial Systems
- MKT 5693  Marketing Environment in Latin America
- MGT 5173  Comparative Interamerican Administration
- ECO 5423  Problems of the Latin American Economies
- BLW 5173  Legal Environment of Interamerican Business

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
DIVISION OF ACCOUNTING AND BUSINESS DATA SYSTEMS

MASTER OF PROFESSIONAL ACCOUNTING DEGREE

The Master of Professional Accounting (MPA) Degree is designed to accommodate applicants with a degree in any field. Such applicants must complete the equivalent of a BBA degree in accounting from an accredited institution or must enroll in UT San Antonio's professional core courses plus certain accounting courses set out by the Advisor. The professional core courses may be taken simultaneously with MPA requirements, subject to course prerequisites and approval of the MPA Program Advisor. Candidates may choose to broaden their knowledge across the accounting spectrum or to focus on taxation, public accounting, or nonpublic accounting.

Special Admission Requirements. In addition to satisfying the university-wide graduate admission requirements for unconditional admission, applicants seeking unconditional admission to the MPA 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.
2. Mathematics to encompass MGT 5013 and MGT 5083 or their equivalents.
3. An approximate composite score of 500 on the Graduate Management Admission Test (GMAT).5
4. Favorable recommendations by the Committee on Graduate Studies to the Division Director in Accounting and/or 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.

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 MPA degree must complete one of the following options:

Required courses (all options):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 6013</td>
<td>Seminar in Current Accounting Theory</td>
<td>3</td>
</tr>
<tr>
<td>ACC 5083</td>
<td>Seminar in Internal Auditing</td>
<td>3</td>
</tr>
<tr>
<td>ACC 6043</td>
<td>Comprehensive Tax and Research Problems</td>
<td>3</td>
</tr>
</tbody>
</table>

Option 1 (course work):

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above required courses</td>
<td>9</td>
</tr>
<tr>
<td>Accounting electives</td>
<td>9-12</td>
</tr>
<tr>
<td>Other approved electives*</td>
<td>15-12</td>
</tr>
<tr>
<td>ACC 6863 Professional Report</td>
<td>3</td>
</tr>
</tbody>
</table>

36 hours

*Applications for the GMAT, or information on the test may be obtained from GMAT, Educational Testing Service, P.O. Box 9863, Princeton, New Jersey 08540
*Other than Accounting courses.
Option 2 (thesis):

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above required courses</td>
<td>9 hours</td>
</tr>
<tr>
<td>Accounting electives</td>
<td>9-12</td>
</tr>
<tr>
<td>Other approved electives*</td>
<td>12-9</td>
</tr>
<tr>
<td>ACC 6983 Thesis</td>
<td>6 hours</td>
</tr>
<tr>
<td></td>
<td>36 hours</td>
</tr>
</tbody>
</table>

Option 3 (internship):

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above required courses</td>
<td>9 hours</td>
</tr>
<tr>
<td>Accounting electives</td>
<td>9-12</td>
</tr>
<tr>
<td>Other approved electives*</td>
<td>12-9</td>
</tr>
<tr>
<td>ACC 6943 Accounting internship</td>
<td>3 hours</td>
</tr>
<tr>
<td>ACC 6963 Professional report</td>
<td>3 hours</td>
</tr>
<tr>
<td></td>
<td>36 hours</td>
</tr>
</tbody>
</table>

In addition to the semester-hour requirements set forth above, all candidates for the MPA degree are required to pass a comprehensive, oral examination.

*Other than accounting courses.
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.

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.
Note: Non-credit course for undergraduate accounting majors.

5024 Financial Accounting Concepts and Practices
(4-0) 4 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.

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 Advanced Problems 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 I
(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.

5063 Governmental Accounting II
(3-0) 3 hours credit. Prerequisite: ACC 5053 or the equivalent.
Analysis of the control structure to measure inputs and outputs including budgets, reporting, and systems design.

5073 Managerial Accounting I
(3-0) 3 hours credit. Prerequisite: ACC 4023 or ACC 5023 or the equivalent, or consent of instructor.
Behavioral aspects of cost accounting, budgeting, standard costing, performance measurement, linear and non-linear cost behavior, network analysis, probability and other selected topics.

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 tech­
niques, review of selected topics including: (1) information theory; (2) systems design; 
and (3) computer controls.

6013 Seminar in Current Accounting Theory  
(3-0) 3 hours credit. Prerequisite: 24 hours of accounting or consent of instructor. 
A study of current accounting pronouncements and literature; accounting bulletins of 
the American Institute of Certified Public Accountants, Securities Exchange Commiss­
ion accounting releases and other relevant material.

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.

6033 Seminar in Public Accounting Practice  
(3-0) 3 hours credit. Prerequisite: 24 hours of accounting or consent of instructor. 
A study of the establishment, development, and management of a public accounting 
practice. Selected topics include: client relations, quality control, fee billing and collection, 
professional responsibilities, and office management.

6043 Comprehensive Tax And Research Problems  
(3-0) 3 hours credit. Prerequisites: ACC 3043 and ACC 6073, or ACC 5013 or consent of instructor. 
Advanced study of tax accounting and research including cash installment method of 
reporting gain, accrual systems of accounting, inventory, earnings and profits, net 
operating losses, carryovers, and allocations. Student will become acquainted with various tax materials available and their use, including the tax services, case reporters, and treasury publications.

6053 Estate, Trust and Gift Taxation and Administration  
(3-0) 3 hours credit. Prerequisite: ACC 6043 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 distribu­
table net income, fiduciary taxation, and the concept of an estate.

6063 Property Transactions and Partnership Tax  
(3-0) 3 hours credit. Prerequisite: ACC 6043 or the equivalent. 
Tax problems relating to the acquisition, holding and disposing of individual, partnership, 
and corporate property with emphasis on partnership taxation. Problems associated 
with the formation, operation, and dissolution of the partnership including basis adjust­
ment, unrealized receivables and substantially appreciated property.

6073 Corporate Taxation  
(3-0) 3 hours credit. Prerequisite: ACC 3043 or the equivalent. 
Study of federal income taxation of corporations and shareholders, with emphasis on 
dividends and redemptions, partial and complete liquidations, and reorganizations. Special attention is given to personal holding companies and accumulated earnings tax.

6083 Seminar in Advance Tax Procedural Problems  
(3-0) 3 hours credit. Prerequisites: ACC 6043, ACC 6063 and ACC 6073 or consent of instructor. 
Advance problems, exploration of areas productive of tax savings, timing of income and 
deductions, tax shelters, audits, administrative appeals, settlement technique, appellate jurisdiction, choosing forums, ruling and technical requests, civil litigation, collateral estoppel, collection process, offers in compromise, interest and civil penalties, indirect methods of proof, criminal penalties.

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 MPA Program Advisor and Division Director. Supervised full-time, off-campus training for 6-9 months in public accounting, industry, or government. Individual conferences and written reports required.

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. Prerequisite: Admission to candidacy and approval of the MPA Program Advisor and the Professional Report Director. Professional report research and preparation. Credit awarded on acceptance of the 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. 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 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 will 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 systems 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.

5403 Governmental Regulation of Industrial Organization
(3-0) 3 hours credit. Prerequisite: ECO 5003 or the equivalent.
Structure of American industry; policy toward business performance and behavior; theory of government interference.

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.

5463 Economics of Regional Development
(3-0) 3 hours credit. Prerequisite: ECO 5023 or the equivalent.
Locational analysis of economic activities; structure or regions and their economic base;
growth poles and theories of regional growth; geographical and cultural determinants;
strategies for area economic development.

5603 Public Finance and Fiscal Policy
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Theoretical rationale for collective action; incidence, equity, and efficiency of taxation
methods; externalities and property rights; fiscal management and debt financing.

5913 Antitrust — Legal and Economic Analysis
(3-0) 3 hours credit. Prerequisite: ECO 5003 or the equivalent.
An analysis of promoting and protecting competition through law. Antitrust implications
of the managerial process are to be examined and evaluated.

6303 Economics of Human Resources
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Review and utilization of economic tools for the analysis of the employment, allocation,
remuneration and development of human resources. The structure and operation of
labor markets and institutions, investments in human resources and problems of human
resources measurement are analysed with respect to economic decisions in the public
and private sectors.

6313 Labor Economics
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Survey of wage theory; wage determination and structure of labor markets; employment
opportunities, economic security, leisure, and technological change; labor organizations
and collective bargaining.

6363 Manpower Policy
(3-0) 3 hours credit. Prerequisite: ECO 5003 or the equivalent.
Projecting of labor needs and the evolution of economic society and the development of
labor force skills to supply these needs. Alternative choices of resources and public
programs available at the local, state, and national levels to assist in the efficient utiliza-
tion of human resources.

6373 Economics of Poverty
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Causes of poverty and ways society provides the means of livelihood for those unable to
care for themselves.

6553 Urban Economics
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Economic dimensions of cities, location theory, theories of agglomeration and urban
growth, analysis of urban problems of the public sector, transportation, pollution, hous-
ing, poverty, land use, and crime.

6951-3 Independent Study
1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form
available) of the instructor, the student's Graduate Advisor, and the Division Director and
Dean of the College in which the course is offered.
Independent reading, research, discussion, and/or writing under the direction of a faculty
member. For students needing specialized work not normally or not often available as
part of the regular course offerings. May be repeated for credit, but not more than 6
hours, regardless of discipline, will apply to the Master's degree.

6971-3 Special Problems
1 to 3 hours credit. Prerequisite: Consent of Instructor.
An organized course offering the opportunity for specialized study not normally or not
often available as part of the regular course offerings. Special Problems Courses may be
repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6983 Master's Thesis
3 hours credit. Prerequisites: Admission to candidacy and permission of the Graduate Advisor and thesis director. Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.

COURSE DESCRIPTIONS

FINANCE

5003 Administrative Finance
(FIN) 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; re-funding and reorganization.

5023 Financial Management
(FIN) 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.

5043 Budgeting and Finance in the Public Sector
(FIN) 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 dispersement systems; interrelationship of planning, programming and budgeting. Attention to the "politics" of budgetary preparation, passage, and execution.

5633 Investment Theory and Problems
(FIN) 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 Interamerican Banking and Financial Systems
(FIN) 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
(FIN) 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
(FIN) 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 decision; working capital management; and international capital markets and credit institutions. Examination of special accounting problems with particular focus on different systems, consolidation, and translation of foreign accounts. Analysis of recent trends in international monetary affairs.

5913 Portfolio Theory and Efficient Capital Markets  
(3-0) 3 hours credit. Prerequisite: FIN 5633 or the equivalent.  
A comprehensive survey on 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. Prerequisite: Consent of Division Director and Dean.  
Original research report on an interamerican management topic.

6603 Revenue Administration  
(3-0) 3 hours credit.  
Elements of management accounting in the public sector. Design and use of expenditure control systems and effectiveness evaluation techniques. Case material utilized to demonstrate application of modern cost accounting to local government decision making. Topics include: revenue estimation, forecasting, audit procedures, property tax assessment.

6613 Financial Management for Not-For-Profit Organizations  
(3-0) 3 hours credit. Prerequisite: FIN 5023 or the equivalent.  
The application of basic financial, accounting, and social theory and methods to the management of the finance function for such not-for-profit organizations as hospitals, educational institutions and research organizations. In addition to budgetary problems emphasis will be placed on the methods of expenditure measurements and control.

6633 Financing Urban Development  
(3-0) 3 hours credit.  
A study of the various sources of revenues available to finance the development of cities. An evaluation of the favorable and unfavorable dimensions of these various funding sources. Cost benefit analysis is used to evaluate the alternatives as they affect city development.

6643 Public Sector Investment Problems and Analysis  
(3-0) 3 hours credit. Prerequisite: FIN 5003 or the equivalent, or consent of instructor.  
Theory and analysis of investment decisions undertaken in the public sector. Concepts of capital budgeting, social costs and benefits, social rates of discount, and human capital investments will be considered.

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.
Emphasizes quantitative methods used in business analysis. Topics include a review of algebra, linear and non-linear optimization, and descriptive statistics.

5023 Quantitative Methods in Business
(3-0) 3 hours credit. Prerequisites: MGT 5013 and MGT 5083 or their equivalents.
A study of applications of quantitative approaches to business decision analyses. Emphasis is given to optimization, statistical, and simulation procedures. Specific managerial decisions addressed include resource allocation, transportation scheduling, capital budgeting, and inventory and production management.

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 5003 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.
Emphasizes computer methods in business research. Research topics addressed include payroll systems, investment analysis, production analysis, input/output systems, and marketing survey analysis.

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 variables 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 Inteiramericn 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 sociopsychological 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.

5233 **Management of Professional and Technical Laboratories**  
(3-0) 3 hours credit. Prerequisite: MGT 5043 or consent of instructor.  
Focuses on the operation and management of medical and scientific laboratories. Includes the development of the laboratory facilities and services, the operation of the laboratory, the management of the professional staff, and the coordination of the laboratory with other institutional units.

5263 **Administration for Health Science**  
(3-0) 3 hours credit. Prerequisite: MGT 5043 or consent of instructor.  
Exploration of basic principles of administration with emphasis on their application to health service organizations. Integrated studies in organization theory and the changing nature of management, decision process, planning and budgeting, personnel administration, control and evaluation.

5273 **Health Services Systems Analysis**  
(3-0) 3 hours credit. Prerequisite: MGT 5043 or consent of instructor.  
Organized social efforts to mobilize resources for promotion of health, prevention of disease, and provision of medical care. Analysis of the complexities of the pluralistic American health service system.

5283 **Health Systems Planning**  
(3-0) 3 hours credit. Prerequisite: MGT 5043 or consent of instructor.  
An examination of planning principles, the use of intermediate to advanced statistical and mathematical programming techniques, and application of advanced planning-programming processes to the development of health care delivery systems.
5293 Program Evaluation in Health Care
(3-0) 3 hours credit. Prerequisite: MGT 5043 or consent of instructor.
A study of the process of program analysis and evaluations in health care. Emphasis on management information structures, process versus output evaluation, economic and cost-benefit analysis, and the use of advanced analytical techniques in the evaluation of organizational goal achievement.

5323 Statistical Methods for Business Analysis
(3-0) 3 hours credit. Prerequisites: MGT 5013 and MGT 5083.
Statistical methods for applications in the analysis of business data utilizing the general regression model, analysis of variance, and experimental design. Computerized practical examples are stressed rather than mathematical development.

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.

5373 Simulation Analysis of Business Systems
(3-0) 3 hours credit. Prerequisites: MGT 5013 and MGT 5083 or their equivalents.
The application of simulation techniques in the analysis of a variety of business systems. Examples will include accounting, finance, economics, marketing, and management systems.

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.
A survey of existing management information systems and procedures for planning and implementing these systems. Specific topics will include "needs" analysis, computer equipment selection, budgeting and scheduling for implementation, and post-installation utilization, modification, maintenance, and cost control.

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 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 our 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 disci-
pline 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.

5063 Marketing Research Design and Application
(3-0) 3 hours credit. Prerequisites: MKT 5023, MGT 5013, and MGT 5083, or their equiva-

lents.
Problems in obtaining and analyzing internal and external marketing information using
various instruments, design and techniques germane to marketing.
5083  **Promotion Management**  
(3-0) 3 hours credit. Prerequisite: MKT 5003 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 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 5003 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 concepts 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 operations in the multinational firm; study of alternative marketing strategies for crossnational market development.

5683  **Import-Export Marketing**  
(3-0) 3 hours credit. Prerequisite: MKT 5023 or the equivalent.  
Analysis of theory and practice of import-export operations between North America and Latin America. Special attention to actual practices and procedures of current operations, role of middlemen, customs, and transportation.

5693  **Marketing Environment in Latin America**  
(3-0) 3 hours credit.  
Analysis of market institutions in economic development in Latin America; problems and techniques of market research in Latin America; Inter-America trade patterns; special attention to consumer behavior in the external environment for marketing in Latin America.

5963-6  **Interamerican Business Internship**  
3 or 6 hours credit. Prerequisites: Consent of Division Director and Dean.  
Work experience in interamerican business or public agency.

5983  **Interamerican Business Essay**  
3 hours credit. Prerequisites: Consent of Division Director and Dean.  
Original research report on interamerican management topic.

6951-3  **Independent Study**  
1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student’s Graduate Advisor, and the Division Director and Dean of the College in which the course is offered.  
Independent reading, research, discussion, and/or writing under the direction of a faculty member. For students needing specialized work not normally or not often available as part of the regular course offerings. May be repeated for credit, but no more than 6 hours, regardless of discipline, will apply to the Master’s degree.

6971-3  **Special Problems**  
1 to 3 hours credit. Prerequisite: Consent of instructor.  
An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Problems Courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to the Master’s degree.
6983 Master's Thesis
3 hours credit. Prerequisites: Admission to candidacy and permission of the Graduate Advisor and thesis director.
Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.
COLLEGE OF FINE AND APPLIED ARTS
DIVISION OF ART AND DESIGN
MASTER OF FINE ARTS DEGREE

The M.F.A. degree is the terminal degree in the field of studio art. 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** (painting, drawing, sculpture, photography, printmaking, ceramics) 18 hours
- **Electives:** Art courses outside the major (12-15 hours) 18 hours
- **Courses outside the Division** (3-6 hours)
- **Art history and criticism** 15 hours
- **Master of Fine Arts Exhibition** 6 hours
- **Master of Fine Arts Research Project** 3 hours
- **Total** 60 hours

All candidates for the degree may be admitted 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 candidates complete at least two semesters of full-time study or 24 hours of graduate work before being admitted to advancement to candidacy. 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**

**ART**

5003  **Concepts and Practices in the Visual Arts**
(2-2) 3 hours credit.
An exploration of the fundamental attitudes and premises governing the perception and creation of 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, but not more than 18 semester credit hours will apply toward the M.F.A. requirements.

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, but not more than 18 semester credit hours will apply toward the M.F.A. requirements.

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, but not more than 18 semester credit hours will apply toward the M.F.A. requirements.

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, but not more than 18 semester credit hours will apply toward the M.F.A. requirements.

5553 Sculpture
(0-6) 3 hours credit. Prerequisite: B.F.A. or equivalent.
Encourages the creative development of sculptural ideas in a variety of materials and technical methods and approaches. May be repeated for credit, but not more than 18 semester credit hours will apply toward the M.F.A. requirements.

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, but not more than 18 semester credit hours will apply toward the M.F.A. requirements.

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 students' activities. May be repeated for credit once.

6846 Master of Fine Arts Exhibition
6 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.

6853 Master of Fine Arts Research Project
3 hours credit. Prerequisite: Advancement to candidacy.
Students will prepare a research paper dealing with topics related to their creative work emphasizing critical and historical considerations. Topics will be chosen by the student in consultation with the graduate advisor upon recommendation of the Graduate Studies Committee and the approval of the Division Director.

6951-3 Independent Study
1 to 3 hours credit. Prerequisite: Graduate Standing and permission in writing (form available) of the instructor, the student's Graduate Advisor, and the Division Director and Dean of the College in which the course is offered.
Independent reading, research, discussion, and/or writing under the direction of faculty member. For student's needing specialized work not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master of Fine Arts degree.
6971-3 Special Problems
1 to 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special problems courses may be repeated for credit when the topics vary, but not more than 6 hours regardless of discipline will apply to the Master of Fine Arts degree.

COURSE DESCRIPTIONS
ART HISTORY AND CRITICISM
(AHC)

5113 Art History Methodology
(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.

5813 Seminar in Art History
(3-0) 3 hours credit. Prerequisite: Graduate standing.
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, Native American)
Pre-Columbian Arts
19th Century Art
20th Century Art
Contemporary Art

6813 Practicum in Art History and Criticism
3 hours credit. Prerequisite: Graduate standing and consent of instructor.
A form of "Learning Laboratory" in which the principles and methodologies of Art History, Art Criticism and Museology are applied in a practical manner outside the classroom in areas such as museum and gallery activities, historical preservation, research for private collections, and community oriented educational or information functions and publications. Projects will be initiated by the students with close supervision and evaluation by the instructor. May be repeated for credit up to a maximum of 6 hours.

6843 Seminar in Art Criticism
(3-0) 3 hours credit. Prerequisite: Graduate standing.
An examination of the principles and methods of critical analysis of work of art, as well as the role and influence on the art critic. Assignments include readings of selected critical texts and exercises in critical writing.

6853 Seminar in Principles and Theories of Art
(3-0) 3 hours credit. Prerequisite: Graduate Standing.
A study of systems and philosophies of art and aesthetics in theory and practice as exemplified in writings and works by artists, philosophers, scientists, and critics.

6951-3 Independent Study
1 to 3 hours credit. Prerequisite: Graduate Standing and permission in writing (form available) of the instructor, the student's Graduate Advisor, and the Division Director and Dean of the College in which the course is offered.
Independent reading, research, discussion, and/or writing under the direction of faculty member. For students needing specialized work not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours regardless of discipline, will apply to the Master'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.
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 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. Applicants are required to take advisory examinations in music theory and music literature. Results of these examinations will be used by the student's advisor to counsel the student in correcting deficiencies where indicated by the examination, and to select 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 is given. Option II is a program that includes 36 semester hours of course work. No thesis is required in Option II.

Students selecting the music performance emphasis are required to complete 30 semester hours of credit including 3 semester hours of credit for a recital.

All students are required to take MUS 5103 Applied Systems of Analysis and MUS 5233 Bibliography. The remainder of the courses in a student’s program must have the approval of the student's advisor.

Students in Music Performance will be required to present a qualifying audition for admission to candidacy. The qualifying audition will be coordinated with the student's advisor and should occur during the first semester of enrollment. A full senior recital in an undergraduate degree program may satisfy the qualifying audition requirement.

**Special Degree Requirements.** All graduate students are required to participate in an ensemble during each semester of study.

Preliminary examinations may be required of all students before admission to candidacy.

Comprehensive written examinations are required of all degree candidates, and an oral examination is required of all students who write a thesis.

### 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 **Bibliography**
(3-0) 3 hours credit. Required of all students for a Master of Music Degree.
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 in the historical periods listed below. Topics are: 1. Music from the Middle Ages Through the High Renaissance. 2. Music in the Age of Humanism and the Baroque Era. 3. Music in the Classic and Romantic Periods. 4. Music in the Twentieth Century. Course may be repeated for credit when topics vary. Topics may be taken concurrently.

5403 **Foundations of Music Education**  
(3-0) 3 hours credit. Prerequisite: Graduate standing in music.  
A study of historical, philosophical and psychological foundations of Music Education. This course also develops principles of Music Education.

5433 **Performance Repertoire For Solo Instruments**  
(3-0) 3 hours credit. Prerequisite: Graduate Standing in music.  
A study of the repertoire for solo instruments. Topics are: 1. Classical Guitar. 2. Organ. 3. Piano. 4. Voice. Course may be repeated for credit when topics vary. Topics may be taken concurrently.

5443 **Performance Repertoire For Orchestral Instruments**  
(3-0) 3 hours credit. Prerequisite: Graduate standing in music.  
A study of the repertoire for orchestral instruments.

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 Orchestral Instruments**  
(3-0) 3 hours credit. Prerequisite: Graduate standing in music.  
Techniques and materials of teaching orchestral instruments to the college level student. A critical comparison of existing materials is included. Each student is required to demonstrate teaching techniques.

5542 **Music Performance**  
(2-0) 2 hours credit.  
Private instruction in the following instruments: baritone, bassoon, clarinet, conducting, contrabass, cornet, flute, classical guitar, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, voice. May be repeated for credit.

5554 **Music Performance-Performance Emphasis**  
4 hours credit. Prerequisite: Graduate standing in music.  
Private instruction for graduate students with emphasis in performance. Instruction offered in baritone, bassoon, clarinet, conducting, contrabass, cornet, flute, classical guitar, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, violin, viola, violoncello, voice. May be repeated for credit.

5563 **Pedagogy Of Solo Instruments**  
(3-0) 3 hours credit. Prerequisite: Graduate standing in music.  
Techniques and materials of teaching private music performance on a solo instrument to the college level student. A critical comparison of materials is included. Each student is required to demonstrate teaching techniques.

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 Chamber Orchestra
(0-3) 2 hours credit.
The study of selected works for the chamber orchestra through ensemble participation in rehearsal and performance. May be repeated for credit.

5732 Chamber Chorale
(0-3) 2 hours credit.
The study of selected works for mixed voices through ensemble participation in rehearsal and performance. May be repeated for credit.

5782 Chamber Music
(0-2) 2 hours credit.
Study and performance of music from the chamber literature. May be applied for credit to fulfill Special Degree Requirements in ensemble. 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.

6413 Trends in Music Education
(3-0) 3 hours credit. Prerequisite: Graduate standing in music.
A study of contemporary trends in music education in the elementary school, the middle school and the senior high school with reference to music of the Southwestern part of the United States. May be repeated for credit.

6423 Seminar in Music Education
(3-0) 3 hours credit.
Research in music education in the area of elementary, middle school, or high school music education. May be repeated for credit.

6532 Diction For Singers
(2-0) 2 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. Section 1 English and French. Section 2: Italian and German.

6553 Recital
(3-0) 3 hours 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. 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.
The Master of Arts Degree in English is designed to offer the student an opportunity to acquire a general knowledge of English and American literature, an understanding of the historical context in which that literature was produced, the opportunity to develop skills of critical analysis, and an introduction to the principal kinds of literary 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 Humanities and Social Sciences.

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.

6 semester hours of course work are required in each of the following fields:

1. Language, Theory, and Practice
   - ENG 5123 Theory of Literature
   - ENG 5173 Theory and Practice of Teaching Literature
   - ENG 5183 Theory and Practice of Teaching Composition
   - ENG 5193 Internship
   - ENG 5813 History of the English Language
   - ENG 5823 Structure of American English

2. Literary Genres
   - ENG 5013 Dramatic Literature
   - ENG 5023 Prose Fiction
   - ENG 5033 Poetry

3. Historical Periods
   - ENG 5223 Medieval Literature
   - ENG 5313 Renaissance Literature
   - ENG 5413 Restoration and Eighteenth-Century Literature
   - ENG 5513 Romantic and Victorian Literature
   - ENG 5733 Modern and Contemporary Literature

4. Masterworks
   - ENG 5213 Chaucer Studies
   - ENG 5323 Shakespeare Studies
   - ENG 5343 Milton Studies
   - ENG 5613 American Renaissance
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 Language, Theory, and Practice (particularly ENG 5173, 5183, 5193, 5813, or 5823); students who wish to emphasize literary studies are encouraged to take their elective hours in Historical Periods and Masterworks and to take 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 Humanities and Social Sciences. Additional requirements for Admission to Candidacy are set forth in that section of the present catalog.

**COURSE DESCRIPTIONS**

**ENGLISH**

**ENG**

5013 **Dramatic Literature**  
(3-0) 3 hours credit.  
Consideration of the nature of drama; the components and structure of dramatic texts; the interrelationships of text, performance, and audience; emphasis on the major dramatic forms.

5023 **Prose Fiction**  
(3-0) 3 hours credit.  
Consideration of novels and short stories selected to illustrate the components of fiction: plot, character, narration, theme, and point of view.

5033 **Poetry**  
(3-0) 3 hours credit.  
Consideration of the nature of verse; investigation of the formal, structural, and generic conventions common to poetry.

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.

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.
Review of the Canterbury Tales, detailed study of Troilus and Criseyde, and reading of
other poems. To be read in Middle English.

5223 Medieval Literature
(3-0) 3 hours credit.
Reading and analysis of verse and prose from the Anglo-Saxon period through the fif­
teenth century, excluding Chaucer; emphasis on Beowulf, the Gawain poet, Langland,
Malory, scriptural and morality plays, and selected lyrics, legends, and romances. Most
readings will be in modern translations.

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 Spenser, Marlowe, Donne, Jonson, Her­
bert, 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 the works of
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 the works of Wordsworth, Coleridge, Scott, Tennyson, Arnold, Dickens, the Pre­
Raphaelites, and Hardy.

5613 American Renaissance
(3-0) 3 hours credit.
Reading and analysis of verse and prose (including fiction) of the American Romantic
movement; emphasis on Poe, Hawthorne, Emerson, Thoreau, Melville, Dickinson, and
Whitman.

5733 Modern and Contemporary Literature
(3-0) 3 hours credit.
Critical survey of twentieth-century English and American verse, drama, and prose; em­
phasis on the works of Yeats, Eliot, Frost, Auden, Conrad, Joyce, Virginia Woolf, and
Faulkner.

5813 History of the English Language
(3-0) 3 hours credit.
A 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 Structure of American English
(3-0) 3 hours credit.
Introduction to formal analysis and description of the structural characteristics of Ameri­
can English on the phonological, morphological, syntactic, and semantic levels, with
attention to contemporary variation and to modern theoretical description of regional and
social dialects.
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 for 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, and must submit three letters of recommendation.

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 in the major.
   Required organized courses:
   SPN 5373 Research Methods in Hispanic Studies
   SPN 5643 Don Quijote
   SPN 5843 History of the Spanish Language
   SPN 6703 Concepts of Hispanic Culture: The Dynamics of Change

B. 12 semester hours from one group of elected concentration courses.

Concentration Courses

Hispanic Culture:
   SPN 6813 Seminar in Hispanic Cultures
   SPN 6823 Topics in Contemporary Hispanic Cultures
   An additional 6 hours as approved by the Committee on Graduate Studies, the Division Director and the Dean to be chosen from among appropriate divisional offerings or from appropriate courses in related disciplines (e.g.: Art History and Criticism, History, Anthropology, Bicultural-Bilingual Studies).

Hispanic Literatures: Students must take one course in each of four groups:

1. SPN 5623 Hispanic Literature of the Middle Ages
   SPN 5633 Hispanic Renaissance Literature
   SPN 5663 Hispanic Baroque Literature

2. SPN 5673 The Enlightenment and Romanticism in the Hispanic World
   SPN 5683 Spanish-American Realism and Naturalism
   SPN 5723 Spanish Realism and Naturalism

3. SPN 5753 Twentieth Century Spanish-American Poetry
   SPN 5763 Twentieth Century Spanish-American Prose
   SPN 5783 Twentieth Century Spanish Poetry
   SPN 5793 Twentieth Century Spanish prose
4. SPN 6853 Theory of Literature
   CL 5013 Theory of Comparative Literature

Spanish Language:
- SPN 5863 Spanish Phonetics and Phonology
- SPN 5883 Spanish Syntax
- LNG 5053 Grammatical Models and the Development of Linguistics
- SPN 6843 Seminar in Hispanic Linguistics, or
- SPN 5893 Hispanic Dialectology

C. 6 semester hours of electives, as approved by the Committee on Graduate Studies, the Division Director and the Dean of the College of Humanities and Social Sciences.

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."

Option II
An additional six (6) semester hours of course work in another discipline related to the student's Concentration, or in other Concentrations, as approved by the Committee on Graduate Studies, the Division Director and the Dean of the College of Humanities and Social Sciences.

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 Humanities and Social Sciences. Additional requirements for Admission to Candidacy are set forth in that section of the present catalog.

COURSE DESCRIPTIONS

SPANISH

(SPN)

5373 Research Methods in Hispanic Studies
(3-0) 3 hours credit.
Methods of research, basic bibliographical tools, critical terminology, techniques of scholarly writing, library procedures applied to Hispanic language, culture, and literature.

5623 Hispanic Literature of the Middle Ages
(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.

5833 Hispanic Renaissance Literature
(3-0) 3 hours credit.
A study of Hispanic Renaissance epics, lyric poetry, prose, and drama. Medieval survivals and Italian innovation. The Spanish awareness of the New World and its reflections
in literature. Spaniards’ writing from Spanish America and their themes: landscape, man, ethics, the Conquest.

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 Hispanic Baroque Literature
(3-0) 3 hours credit.
A study of Hispanic Baroque both in Spain and Spanish America. Literary genres, themes, style, and ideological background.

5673 The Enlightenment and Romanticism in the Hispanic World
(3-0) 3 hours credit.
Selected readings in the essay, poetry, and drama to illustrate Hispanic manifestations of the new literary genres, themes and styles generated by the eighteenth century Enlightenment and the Romantic Revolution.

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 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 Ibanez exemplifying the trend from freedom to determinism.

5743 Modernism and the Generation of ’98
(3-0) 3 hours credit.
The cosmopolitan concept of art for art’s sake at the turn of the century contrasted to literature as the search for national and personal roots. Selected readings from both Spain and Spanish America.

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

5763 Twentieth Century 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 Twentieth Century Spanish Poetry
(3-0) 3 hours credit.
Studies of the major works from the generation of ’27 to the present.

5793 Twentieth Century 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 variation 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 Cultures
(3-0) 3 hours credit.
Studies of different facets of Hispanic Civilization such as: Christian and non-Christian cultures; "Civilization and Barbarism"; Revolutionary Movements and the Arts; Conquest and mestizaje. May be repeated for credit when topics vary.

6823 Topics in Contemporary Hispanic Cultures
(3-0) 3 hours credit.
Studies of cultural expression in the contemporary Hispanic World. May be repeated for credit when topics vary.

6833 Seminar in Hispanic Literatures
(3-0) 3 hours credit.
Studies of independent topics not covered in the regular sequence of Hispanic literature courses. Stress will be on research. May be repeated for credit when topics vary.

6843 Seminar in Hispanic Linguistics
(3-0) 3 hours credit.
Studies of independent topics not covered in the regular sequence of Hispanic linguistics courses. Stress will be on research. 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 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 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 pro-
gress.

COURSE DESCRIPTIONS
COMPARATIVE LITERATURE
(CL)

5013 Theory of Comparative Literature
(3-0) 3 hours credit.  
The principles of comparison. Influence and imitation. Reception, diffusion, and survival.
Chronological measure in comparative literature: epoch, period, generation. Genre struc-
ture: origins, diffusion, variation. Subject matter: motifs, their diffusion and their combina-
tion. National literature, general literature, world literature and comparative literature.

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 fif-
teenth 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 liter-
ary 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. Prerequisites: 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.
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. Prerequisite: 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.

5083 History of Linguistics
(3-0) 3 hours credit. Prerequisite: LNG 3813 or equivalent or consent of instructor. A history of the various stages of the development of linguistics as a discipline in the Western World.

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.

5113 Computer-Assisted Research in Language Study
(3-0) 3 hours credit. Prerequisite: LNG 3813 or equivalent or consent of instructor. The opportunity for familiarization with the capabilities and limitations of the computer in problems involving language. Learning and utilizing a computer language in linguistic analysis, literary text analysis, or any application where the data are essentially strings of words.

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.

5143 Linguistic Structures
(3-0) 3 hours credit. Prerequisite: LNG 3813 or equivalent or consent of instructor. The study and analysis of language structures from various theoretical points of view including structural and generative-transformational.
DIVISION OF SOCIAL SCIENCES
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 offer the opportunity for the student to examine in detail one of several areas of historical study, with cross-disciplinary coursework serving to broaden the student's ability to interpret historical data. The program of study incorporates an integrated body of formal courses, supervised study, and an original research project.

The sequence of courses selected by the Master's student must build to a coherent and definable area of emphasis. Possible areas of emphasis are: 1) Historical Studies of the U.S.-Mexican Borderlands, 2) Historical Process and Literature in Latin America, 3) the Overseas Expansion of Europe, 4) American Social History, and 5) Ethno-history. Prospective students should consult the Division's Graduate Advisor for approved courses in each area.

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. Students interested in pursuing the non-thesis option should contact the Graduate Advisor of Record for details before completing the proposed program of study.

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 applicant's academic background, skills, motivation, and potential. These letters should be directed to the Graduate Advisor of Record, Division of Social Sciences, and should arrive as soon as possible after submitting the application for admission.

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 33.

All candidates for the degree must complete:

A. 6 semester hours of general field courses to be chosen from:
   HIS 5643 European History, 1618-1815 and
   HIS 5663 European History Since 1815
   or
   HIS 5053 American History to 1865 and
   HIS 5063 American History Since 1865

B. 9 semester hours of specific field courses in the specialization area chosen in consultation with the student's graduate advisor. Lists of suggested courses are available from the Graduate Advisor of Record in the Division of Social Sciences.

C. 6 semester hours of electives chosen in consultation with the student's graduate advisor. These courses are to be outside the student's specific field and may be in disciplines outside History. Students in the specific field of Ethno-history should contact the Graduate Advisor of Record in the Division of Social Sciences for a list of approved courses from which electives may be chosen.
D. 6 semester hours of research seminars as follows:
   HIS 6803 Research Seminar in Ethnohistory and
   HIS 6903 Research Seminar in History
   or
   HIS 6903 Research Seminar in History (6 hours)

E. 6 semester hours within Option I (with thesis) or Option II (without thesis):
   Option I.
   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.
   An additional 6 semester hours of electives chosen in consultation with student's graduate advisor.

In addition to the semester-hour requirements set forth above, all candidates for the degree are required to pass the comprehensive examination. For students pursuing the thesis option, the comprehensive examination, covering the student's program and area of specialization, is scheduled for the final semester of course work. Satisfactory performance on the comprehensive examination is required for enrolling in HIS 6983, Master's Thesis. If the student is pursuing the non-thesis option, satisfactory performance on the comprehensive examination is required before the student enrolls in his/her last 6 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 of the College of Humanities and Social 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 where warranted based on the nature of the program and course work sought by the student. The language requirement will be determined at the time a student is admitted to candidacy and must be satisfied prior to beginning 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.

COURSE DESCRIPTIONS

HISTORY

(HIS)

5053 American History to 1865
(3-0) 3 hours credit.
Overview of major themes in U.S. history before 1865 through an historiographical survey of the literature.

5063 American History Since 1865
(3-0) 3 hours credit.
Overview of major themes in U.S. history since 1865 through an historiographical survey of the literature. A continuation of HIS 5053.
114 / HISTORY

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.

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.

5173 History of United States Immigration
(3-0) 3 hours credit.
The emergence and impact of immigrant groups in the United States, from colonial times to the present, with special emphasis on patterns of settlement, assimilation, acculturation, discrimination, cultural resistance and preservation, and the contributions of immigrants to the American experience.

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, neoliberalism, 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 continuation of The Spanish Borderlands, 1521-1821, with a comparative description and analysis of the historical development of Texas, New Mexico, Arizona, and California from the Treaty of Guadalupe Hidalgo to the twentieth century.

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.

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.

5583 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.

5643 European History, 1618-1815
(3-0) 3 hours credit.
Significant aspects of early modern European history will be considered, including economic and social change in Western Europe, the Scientific Revolution of the seventeenth century, enlightened despotism and the French Revolution.

5663 European History Since 1815
(3-0) 3 hours credit.
Significant issues in modern European history, with attention to the methods and assumptions of different categories of historical interpretation. Topics include the Congress of Vienna, the Revolutions of 1848, the industrialization of Europe, the cultural effects of the first World War, and the rise of Hitler.

5763 Africa Since 1800: Colonial Rule to Independence
(3-0) 3 hours credit.
A study of nineteenth-century African societies, the European partition of Africa, the introduction and operation of colonial administrations, the evolving relationships between indigenous societies and the imperial powers, the rise of African opposition to colonial rule, and the spread of nationalism.

5773 The Middle East and North Africa Since 1600
(3-0) 3 hours credit.
An advanced survey of Middle Eastern and North African history since 1600, emphasizing the growth and decline of the Ottoman and Safavid empires, the incursion of European powers in the nineteenth and twentieth centuries, the partition of the Ottoman Empire, and the growth of Arab, Turkish, and Iranian nationalism.

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.

6133 Reform Movements in American History
(3-0) 3 hours credit.
An examination of the origins, development and achievements of selected reform movements from the eighteenth century to the present. Specific subjects will vary, but may include such attempts at reform as revivalism, abolitionism, populism, progressivism, and civil rights.
6803 Research Seminar in Ethnohistory
(3-0) 3 hours credit. Prerequisite: At least one graduate-level course in History or Anthropology or consent of instructor. An analysis of essential concepts of ethnohistory. Primary emphasis on methods employed in ethnohistorical research and their limitations. Preparation of a research paper is normally required.

6903 Research Seminar in History
(3-0) 3 hours credit. 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 usually required. May be repeated for credit when topics vary.

6911-3 Practicum in History
1 to 3 hours credit. Prerequisite: Consent of instructor. Supervised work in settings such as archives, educational institutions, and government agencies in which knowledge of history and historical methods may be applied to practical situations. May be repeated for credit, but not more than 3 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 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 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 student who obtains an M.A. degree in this program may either continue graduate education at the doctoral level or carry out professional duties as a public service archaeologist 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 Social 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 Division of Social Sciences 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 Ad-
mission to Candidacy by the Dean of the College of Humanities and Social 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 where warranted based on the nature of the program and course work 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 beginning 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, 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. Satisfactory performance on the examination is required for admission to degree candidacy and for enrolling in ANT 6983, Master’s Thesis. If the student is pursuing the non-thesis option, satisfactory performance on the comprehensive examination is required before the student enrolls in his/her last 6 hours of course 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 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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5153</td>
<td>Seminar in Mexican-American Culture</td>
<td>3 hours</td>
<td>A survey of Mexican-American culture. Special studies in ethnology, ethnography, folklore, and linguistics.</td>
</tr>
<tr>
<td>5203</td>
<td>Language, Culture, and Cultural Change</td>
<td>3 hours</td>
<td>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.</td>
</tr>
<tr>
<td>5223</td>
<td>Medical Anthropology</td>
<td>3 hours</td>
<td>Consideration of cultural factors in the practice of medicine, training of physicians, attitudes toward drugs and medical personnel. Psychological elements and value systems in traditional societies and their non-medical explanations and attitudes toward disease, trauma, curing, and preventive medicine.</td>
</tr>
<tr>
<td>5413</td>
<td>Seminar in the Prehistory of Texas and Adjacent Areas</td>
<td>3 hours</td>
<td>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.</td>
</tr>
<tr>
<td>5423</td>
<td>Archaeological Backgrounds of Mesoamerica</td>
<td>3 hours</td>
<td>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.</td>
</tr>
<tr>
<td>5433</td>
<td>Archaeological Backgrounds of the Middle East, the Mediterranean and Europe</td>
<td>3 hours</td>
<td>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.</td>
</tr>
<tr>
<td>5554</td>
<td>Field Course in Archaeology</td>
<td>4 hours</td>
<td>Prerequisite: Consent of instructor. The opportunity for advanced training in field procedures, and their applications to problem-oriented field research. Students may not enroll in other courses concurrently except for ANT 6442. May be repeated for credit.</td>
</tr>
<tr>
<td>6113</td>
<td>Seminar in the Anthropology of Mesoamerica</td>
<td>3 hours</td>
<td>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 empire, roots of Mesoamerican peasant culture, and distribution analysis of cultural and language variance. May be repeated for credit when topics vary.</td>
</tr>
<tr>
<td>6123</td>
<td>Seminar in Ethnohistory</td>
<td>3 hours</td>
<td>Survey and practicum in methods and objectives of documentary historical research in Anthropology.</td>
</tr>
<tr>
<td>6403</td>
<td>Archaeological Analysis</td>
<td>3 hours</td>
<td>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.</td>
</tr>
</tbody>
</table>
6442 Supervised Field Research
(0'12) 2 hours credit. Prerequisite: Consent of instructor.
This course must be taken concurrently with ANT 5554. 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.

6983 Master's Thesis
(3-0) 3 hours credit. Prerequisites: Admission to candidacy and permission of the Gradu-
ate 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.

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 disci-
pline, 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, transporta-
tion systems, and resource exploitation. Central place theory, Boserup's theory of agri-
cultural growth, and other theoretical matters are considered.

6153 Seminar in the Geography of Latin America
(3-0) 3 hours credit.
Intensive analysis of selected problems in Latin American geography, including compara-
tive 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 disci-
pline, 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.

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.

5603 American Local Government
(3-0) 3 hours credit.
The conflict between the subordinate legal status of local governments and the ideal of local autonomy and control. Topics may include: administrative and financial responsibilities of municipal, county and special district governments; the role of localities in shaping national policy; the politics of cooperation and conflict between units of government.

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.

5633 American State Governments
(3-0) 3 hours credit.
A comparative examination of administration, policy, and political behavior in the American states, as they reflect differences in institutions and political cultures. Special attention to Texas.
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.

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 performance. 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.

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.
COLLEGE OF MULTIDISCIPLINARY STUDIES
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 course work, the candidate will be required to pass a written and oral comprehensive examination.

Special Admission Requirements. In addition to satisfying the university-wide graduate admission requirements, students entering this program must demonstrate oral and written proficiency in English and another language by giving evidence acceptable to the Division of Bicultural-Bilingual Studies.

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.

Option I (a total of 36 semester hours, including a thesis)

Thirty (30) semester hours of course work required from the following areas:

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
MASTER OF ARTS DEGREE IN BICULTURAL-BILINGUAL STUDIES

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 Evaluation in 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

Six (6) hours of Master’s Thesis.

**Option II** (a total of 36 semester hours, non-thesis program)
Thirty (30) semester hours of course work required from the following areas:

**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 Evaluation in 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

An additional six (6) semester hours of course work 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.

**Option I** (a total of 36 semester hours, including a thesis)

Thirty (30) semester hours of course work required from the following areas:

**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 5173 History of United States Immigration  
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  
HIS 6133 Reform Movements in American History

**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 Evaluation in Bilingual and Second Language Programs

Six (6) hours of Master’s Thesis.

**Option II** (a total of 36 semester hours, non-thesis program)

Thirty-six (36) semester hours of course work required from the following areas:
MASTER OF ARTS DEGREE IN BICULTURAL-BILINGUAL STUDIES

**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 5173 History of United States Immigration
- HIS 5263 The Spanish Borderlands, 1521-1821
- HIS 5273 The Mexican Borderlands since 1821
- HIS 5403 History of Mexico and Guatemala: The Colonial Period
- HIS 5413 History of Mexico: The Republican Period
- HIS 6133 Reform Movements in American History

**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 Evaluation in Bilingual and Second Language Programs

An additional six (6) semester hours of course work in Bicultural-Bilingual Studies, English as a Second Language, or a related area.

**Concentration in English as a Second Language**

This program of study is designed for those who are concerned with teaching English as a second language (TESL) or a foreign language (TEFL). This multidisciplinary program presents systematic instruction in applied linguistics and ESL approach, method, and technique. The M.A. degree is offered under two options: thesis and non-thesis.

**Option I** (a total of 36 semester hours, including a thesis).
Thirty (30) semester hours of course work required from the following areas:

**Theory of Language and Language Acquisition** (six to nine required hours)
- ESL 5003 Linguistics for Second Language and Bilingual Specialists
- ESL 5013 Psycholinguistic Foundations of Second Language Teaching/Learning
- ESL 5023 Language Analysis for Second Language Specialists

**Methods and Materials** (nine to twelve required hours)
- ESL 5053 Second Language Teaching Methods
- ESL 5063 Second Language Teaching Techniques
- ESL 6073 Language Teaching Materials
- ESL 5033 Reading Acquisition and Techniques
OR

ESL 6063 Controlled Composition and Writing in Second Language Programs

Program Research, Design, and Evaluation (three required hours)

BBL 5053 Tests and Measurements in Bilingual and Second Language Studies

BBL 6053 Testing Members of Bicultural-Bilingual Societies

BBL 6063 Research Methodology in Bilingual and Second Language Studies

BBL 6073 Ethnographic Research Methods in Bicultural-Bilingual Studies

BBL 6153 Evaluation in Bilingual and Second Language Programs

Socio-Cultural Studies (six required hours)

BBL 5003 Foundations for Bicultural Studies

BBL 5013 Multicultural Groups in the United States

BBL 5023 Cultural Adaptation in Bilingual Societies

BBL 5073 Psychological Considerations in Bicultural-Bilingual Environments

BBL 5123 Sociolinguistic Approaches to Bilingual Education

BBL 5133 Hispanic Biculturalism in the United States

BBL 6083 Biculturalism in the Southwest

Language Assessment (three to six required hours)

ESL 6013 Error and Discourse Analysis

ESL 6053 Seminar in Second Language Test Construction

Six (6) semester hours of Master's Thesis.

Option II (a total of 36 semester hours, non-thesis program)

Thirty (30) semester hours of course work required from the following areas:

Theory of Language and Language Acquisition (six to nine required hours)

ESL 5003 Linguistics for Second Language and Bilingual Specialists

ESL 5013 Psycholinguistic Foundations of Second Language Teaching/Learning

ESL 5023 Language Analysis for Second-Language Specialists

Methods and Materials (nine to twelve required hours)

ESL 5053 Second Language Teaching Methods

ESL 5063 Second Language Teaching Techniques

ESL 6073 Language Teaching Materials

ESL 5033 Reading Acquisition and Techniques

OR

ESL 6063 Controlled Composition and Writing in Second Language Programs

Program Research, Design, and Evaluation (three required hours)

BBL 5053 Tests and Measurements in Bilingual and Second Language Studies

BBL 6053 Testing Members of Bicultural-Bilingual Societies

BBL 6063 Research Methodology in Bilingual and Second Language Studies

BBL 6073 Ethnographic Research Methods in Bicultural-Bilingual Studies

BBL 6153 Evaluation in Bilingual and Second Language Programs

Socio-Cultural Studies (six required hours)

BBL 5003 Foundations for Bicultural Studies

BBL 5013 Multicultural Groups in the United States

BBL 5023 Cultural Adaptation in Bilingual Societies

BBL 5073 Psychological Considerations in Bicultural-Bilingual Environments

BBL 5123 Sociolinguistic Approaches to Bilingual Education

BBL 5133 Hispanic Biculturalism in the United States

BBL 6083 Biculturalism in the Southwest
Language Assessment (three to six required hours)
ESL 6013 Error and Discourse Analysis
ESL 6053 Seminar in Second Language Test Construction
An additional six (6) semester hours of course work in Bicultural-Bilingual Studies, English as a Second Language, or a related area.

COURSE DESCRIPTIONS

BICULTURAL-BILINGUAL STUDIES (BBL)

5003 Foundations for Bicultural Studies
(3-0) 3 hours credit.
A study of basic concepts and principles for a multidisciplinary approach to biculturalism and multiculturalism.

5013 Multicultural Groups in the United States
(3-0) 3 hours credit.
A study of sociocultural diversity, culture maintenance and change, culture revitalization, and other aspects of ethnicity in the past, present, and future of the United States.

5023 Cultural Adaptation in Bilingual Societies
(3-0) 3 hours credit.
A study of the dynamic relationships between culture and language, with emphasis on various adaptations to the American value system.

5033 Techniques of Teaching Content in Bilingual Programs
(3-0) 3 hours credit.
A study of techniques, methods, and approaches applicable to the teaching of subject area content in bicultural-bilingual programs. 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 implementation of elementary and secondary school programs based upon the sociological reality of a culturally diverse community.
BICULTURAL-BILINGUAL STUDIES / 129

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.

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 re-
sources 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 institu-
tional 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 Evaluation in Bilingual and Second Language Programs
(3-0) 3 hours credit.
Design and implementation of program evaluation procedures, purposes and types of
evaluation related to bilingual and second language programs.

6951-3 Independent Study
1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form
available) of the instructor, the student's Graduate Advisor, and the Division Director and
Dean of the College in which the course is offered.
Independent reading, research, discussion, and/or writing under the direction of a faculty
member. For students needing specialized work not normally or not often available as
part of the regular course offerings. May be repeated for credit, but not more than 6 hours,
regardless of discipline, will apply to the Master's degree.

6971-3 Special Problems
1 to 3 hours credit. Prerequisite: Consent of instructor.
An organized course offering the opportunity for specialized study not normally or not
often available as part of the regular course offerings. Special Problems courses may be
repeated for credit when the topics vary, but not more than 6 hours, regardless of disci-
pline, 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.
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. A student can specialize in a teaching field (e.g., science education, English education) by taking some of the support work for the degree in the content area of specialization.

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 pre-adolescence. 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 children identified as mentally retarded, emotionally disturbed, or language/learning disabled. The student may elect any of the emphases above or combinations of them. The program is intended to offer the opportunity for both theoretical and conceptual understandings of students with these problems and clinical opportunities to develop and apply skills in working with them.

**The Concentration in Institutions of Higher Education**

This concentration offers the opportunity for advanced study for careers in Education 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.

**C) A program emphasis**

1. The program emphasis must consist of at least twelve (12) hours in one of the following concentrations:
   1. Cultural Foundations of Education
   2. Curriculum and Instruction (Program emphases: Master Teacher, Curricu-
ulum 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 options: 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). Twelve hours of electives may be chosen with consent of the Graduate Advisor. These may include 3 hours of socio-cultural foundations of Education — ECE 5493, ECE 6183, EDU 5403, EDU 5503, EDM 5703, EDP 6003, or BBL 5013.

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

<table>
<thead>
<tr>
<th>Option I, with thesis</th>
<th>Option II, without thesis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Core</strong></td>
<td></td>
</tr>
<tr>
<td>EDU 5003</td>
<td>EDU 5003</td>
</tr>
<tr>
<td>EDU 5103</td>
<td>EDU 5103</td>
</tr>
<tr>
<td>EDP 5003</td>
<td>EDP 5003</td>
</tr>
<tr>
<td>C&amp;I 5003</td>
<td>C&amp;I 5003</td>
</tr>
<tr>
<td></td>
<td>12 hours</td>
</tr>
<tr>
<td><strong>Concentration</strong></td>
<td></td>
</tr>
<tr>
<td>Courses required for</td>
<td>Courses required for</td>
</tr>
<tr>
<td>a program emphasis</td>
<td>a program emphasis</td>
</tr>
<tr>
<td>within a single</td>
<td>within a single</td>
</tr>
<tr>
<td>concentration</td>
<td>concentration</td>
</tr>
<tr>
<td></td>
<td>12 hours</td>
</tr>
<tr>
<td><strong>Support</strong></td>
<td></td>
</tr>
<tr>
<td>EDU 5053 or approved</td>
<td>12 hours of approved</td>
</tr>
<tr>
<td>substitution</td>
<td>elective support courses</td>
</tr>
<tr>
<td><em>Thesis (six hours)</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9 hours</td>
</tr>
<tr>
<td>Total: 33 hours</td>
<td>12 hours</td>
</tr>
</tbody>
</table>

Total: 33 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.

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.

5473  Curriculum for the Mentally Retarded Child
(3-0) 3 hours credit.
Study of curriculum models related to teaching mentally retarded children. Analysis of procedures for diagnosing the needs of mentally retarded children and methods and content of instruction.
5503 Early Childhood and Elementary School Curricula  
(3-0) 3 hours credit.  
A systematic analysis of early childhood and elementary school curricula 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.

5523 Advanced 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 the Severely Handicapped Child  
(3-0) 3 hours credit. Prerequisites: Admission to candidacy and EDP 5403 or consent of instructor.  
Programs and techniques for helping the severely handicapped child achieve maximum independence will be studied. Techniques for developing self-help, motor, social, communication, and vocational skills will be presented. Programming for continuing adult educational and sheltered work programs will be examined.

5543 Curriculum for the Mildly Handicapped Child  
(3-0) 3 hours credit. Prerequisites: Admission to candidacy and EDP 5403 or consent of instructor.  
A study of curriculum for the mildly handicapped child. Special approaches to the sequencing of goals and objectives in academic, adaptive, and vocational programs will be studied. Techniques for the preparation and implementation of individual education programs.

5603 Elementary School Curricula  
(3-0) 3 hours credit.  
A systematic analysis of elementary school curriculum. A critical study of the objectives, methods of curricular organization, and content used with elementary school children.

5703 Secondary School Curricula  
(3-0) 3 hours credit.  
A systematic analysis of secondary school curriculum. 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 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 SED 5743 may not both be taken for credit.

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, 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.

5793 **Seminar in Reading Supervision**  
(3-0) 3 hours credit. Prerequisite: Consent of instructor.  

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.

6103 **Occupational Planning in Mental Retardation**  
(3-0) 3 hours credit. Prerequisite: EDP 5413 or consent of instructor.  
Curriculum for secondary school age mentally retarded children. Attention is given to specific skills useful in possible occupations for the mentally retarded.

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.

6203 **Methods for Teaching Children with Language/Learning Disabilities**  
(3-0) 3 hours credit. Prerequisite: Consent of instructor.  
The theoretical and practical aspects of prescriptive instructional materials and techniques designed for use with LLD children.

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 for assistance in achieving 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  
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: Early Childhood through Elementary School
(3-0) 3 hours credit. Patterns of acquisition of language skills will be analyzed. Language development as influenced by social factors, linguistic structures in language models, classroom interactions, conversational systems, bilingualism, bidialectalism, and the relationship of attention, discrimination, memory, and symbolic logic to communication competencies.

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.

5493 Sociological Implications of the Elementary School
(3-0) 3 hours credit. Historical examination of the relationship of the elementary school to the society it serves, including a study of the relationship of some aspects of societal changes, e.g., groups involved, roles of individuals, to changes within the elementary school, e.g., general goals, curricular emphases.

6103 Seminar in Early Childhood Education
(3-0) 3 hours credit. Prerequisite: Admission to candidacy or consent of instructor. Analysis of historical and contemporary issues in Early Childhood Education with emphasis on current research and the role of the family in the education of children.
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.

6143 Seminar on Day-Care for Children Under Three: Social and Developmental Aspects
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Child caretaking in different social structures; day-care centers from a cross-cultural perspective; biological and social aspects of traditional families and alternative family arrangements; physical and mental characteristics of children under three; learning capacity of children under three; deprivation syndromes.

6163 Biological Basis of Child Development
(3-0) 3 hours credit. Prerequisites: One course in general biology or BIO 1033 and EDP 5013 or ECE 5123.
Theoretical aspects of behavioral biology; behavioral genetics; comparative physiology of behavior; behavioral embryology; physiological and environmental factors affecting development of behavior; early development of learning and cognitive 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 MAT 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 select the appropriate statistical procedure and interpret the results.

5103 Contemporary Educational Philosophy
(3-0) 3 hours credit.

Philosophical analysis of issues in American education. Consideration is given to ethical and epistemological implications of issues with an emphasis on the evaluation of arguments for the adoption of educational policy.

5203 Evolution of Educational Thought
(3-0) 3 hours credit.

An examination of the major educational thinkers in Western Civilization and a review of past institutional arrangements for education.

5403 Education, Cultural Differences and Acculturation
(3-0) 3 hours credit.

Educational changes and adjustments resulting from the interaction of a variety of different cultural backgrounds in the modern school. Specialized techniques, processes, and programs designed to meet unique learning needs of the non-English speaking child.

5503 Seminar in Social Foundations of Education
(3-0) 3 hours credit.

Examination and analysis of social structures, values, and culture 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.

6951-3 Independent Study
1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate Advisor, and the Division Director and Dean of the College in which the course is offered.

Independent reading, research, discussion, and/or writing under the direction of a faculty member. For students needing specialized work not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree.

6971-3 Special Problems
1 to 3 hours credit. Prerequisite: Consent of instructor.

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

6983 Master's Thesis
3 hours credit. Prerequisites: Admission to candidacy in the Master's Program and permission of the Graduate Advisor and thesis director.
Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.

**COURSE DESCRIPTIONS**

**EDUCATIONAL MANAGEMENT (EDM)**

5003 General School Administration
(3-0) 3 hours credit. Prerequisite: One year of teaching experience or consent of instructor.
The roles, tasks, and problems of district and building-level administrators; interrelationships of modern school systems and their relationship to local, state, and federal government.

5103 School Finance and Taxation
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Current problems, issues, and practices in local, state, and federal financial support for primary and secondary schools and the relation of school finance problems to broader socio-economic issues.

5203 School and Community Relations
(3-0) 3 hours credit.
Parent participation in the school and strategies for informing the community about school activities and promoting school community interactions are analyzed. Studies will be made on interrelationships among the home, schools, and community.

5303 Human Relations in Educational Administration
(3-0) 3 hours credit.
Analysis and identification of group processes and individual behavior which tend to enhance democratic interaction in the achievement of educational goals. Consideration of supportive roles requisite to the supervision of professionals in the educative process.

5403 The Principalship
(3-0) 3 hours credit. Prerequisites: One year teaching experience, and completion of EDM 5003 and EDM 5103, or consent of program coordinator.
Analysis of the principal's role as he or she interacts with his or her various referent groups. Special emphasis on behavior and on supervision of the instructional program. Applicable to elementary and secondary administration.

5503 Administration and Function of Special Programs
(3-0) 3 hours credit. Prerequisites: EDM 5003 and EDM 5103, or consent of program coordinator.
A study of the role of the administrator in initiating, developing, supervising, and supporting programs in Guidance, Vocational and Technical Education, Career Education, Special Education, Compensatory Education, and Reading.

5703 Legal Foundations of Education
(3-0) 3 hours credit.
Analysis of current legal basis and practices in the governance of education and the implications of significant court decisions pertaining to school operations. Emphasis on legislation related to the multicultural nature of society and the schools.

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 Facilities — Resources and Planning  
(3-0) 3 hours credit.  Prerequisite: Consent of instructor.  
An analysis of the building and other physical plant needs of the local public school district, including planning, financing, construction, and utilization.

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.

6942  Internship — Mid-Management  
(2-0) 2 hours credit.  Prerequisite: Consent of program coordinator.  
Supervised on-the-job experience with building-level administrators or district program specialists with related reading and study.  Must be repeated in two consecutive semesters (4 hrs. credit) to meet certification requirements.

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.

6982  Internship — District-Wide  
(2-0) 2 hours credit.  Prerequisite: Consent of program coordinator.  
Supervised on-the-job experience with district-level administrators with related reading and study.  Must be repeated in two consecutive semesters (4 hrs. credit) to meet certification requirements.

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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Notes and Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>5013</td>
<td>Learning Theories Related to Child Development</td>
<td>3-0</td>
<td>A study of developmental and learning theories related to the growth of the child from infancy through childhood.</td>
</tr>
<tr>
<td>5023</td>
<td>Learning Theories Related to Adolescent Development</td>
<td>3-0</td>
<td>A study of developmental and learning theories related to growth during the adolescent and adult period.</td>
</tr>
<tr>
<td>5203</td>
<td>The Guidance Function in Education</td>
<td>3-0</td>
<td>Admission to candidacy or consent of instructor. Focus will be on teacher, counselor, administrator roles, current and emerging practices.</td>
</tr>
<tr>
<td>5213</td>
<td>Diagnosis and Counseling</td>
<td>3-0</td>
<td>EDP 5203 or consent of instructor. Counseling theory and techniques for identification of student problems. Focus on tools and techniques for identification, counseling for personal adjustment.</td>
</tr>
<tr>
<td>5223</td>
<td>Psychometric Procedures</td>
<td>3-0</td>
<td>EDP 5203 or consent of instructor. A study of instruments used to measure personality variables. Focus on administering and interpreting instruments measuring intellectual abilities.</td>
</tr>
<tr>
<td>5233</td>
<td>Group Processes: The Individual in the Group</td>
<td>3-0</td>
<td>EDU 5003 or consent of instructor. A study of group structure and theory. Focus on group influences on behavior.</td>
</tr>
<tr>
<td>5243</td>
<td>Marriage and Family Counseling</td>
<td>3-0</td>
<td>EDP 5203 and EDP 5213 or consent of instructor. Skills and techniques for the counselor to use in working with parents of school children. Approaches covered will include Adlerian Counseling and Transactional Analysis.</td>
</tr>
<tr>
<td>5303</td>
<td>Principles and Techniques of Evaluation</td>
<td>3-0</td>
<td>Study of the role of evaluation, development of instruments for assessing the products of learning, and the techniques for interpreting and communicating evaluation results.</td>
</tr>
<tr>
<td>5393</td>
<td>Practicum in Counseling</td>
<td>3-0</td>
<td>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.</td>
</tr>
<tr>
<td>5403</td>
<td>The Exceptional Child in School</td>
<td>3-0</td>
<td>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.</td>
</tr>
<tr>
<td>5413</td>
<td>The Mentally Retarded Child</td>
<td>3-0</td>
<td>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.</td>
</tr>
<tr>
<td>5423</td>
<td>Behavior Analysis and Modification</td>
<td>3-0</td>
<td>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.</td>
</tr>
<tr>
<td>5433</td>
<td>Educational Assessment of the Exceptional Child</td>
<td>3-0</td>
<td>EDP 5403 or consent of instructor. A study of the selection, administration, and interpretation of educational and diagnostic instruments and procedures necessary to evaluate and educate exceptional children.</td>
</tr>
</tbody>
</table>
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.

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.

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.

Practicum in Mental Retardation
(3-0) 3 hours credit. Prerequisites: EDP 5403, C&I 5473, 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 implement diagnostic and curricular materials in a field setting.

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.

The Behaviorally Disordered Child
(3-0) 3 hours credit.
Designed to offer the opportunity for special educators and students in related fields with an understanding of various theories and practices in the field of behavior disorders. Research relative to the education of the behaviorally disordered child as well as its practical implications for the classroom teacher will be considered.

Assessment and Evaluation of the Severely Handicapped Child
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Designed to offer the opportunity for students with the ability to use a variety of instruments to evaluate the behavior and performance of severely handicapped individuals. Adaptive and developmental scales of assessment as well as observational systems will be emphasized. Assessment techniques in the areas of self-help, motor, social, communication and vocational skills will be covered.

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.

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.

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 programs 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 educational settings which will include planning, implementing, and evaluating appropriate experiences 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.

5693 Advanced Practicum in Counseling
(3-0) 3 hours credit. Prerequisite: EDP 5393 or consent of instructor.
The student will choose one of two options: Option A involves supervised field work in a counseling setting. Option B provides application of counseling theory and practice in a laboratory setting.

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.
COURSE DESCRIPTIONS

HIGHER EDUCATION
(HED)

5003 The Development of Higher Education in the U.S.
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
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
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
A study of current thought as it relates to the management of institutions of higher education.

5203 The American College Student
(3-0) 3 hours credit.
The college student's role in contemporary society; characteristics, basic values, peer group influence, campus culture, needs and pressures.

5303 Seminar in Governance of Higher Education
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
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
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Concepts and practices in financing, planning, program and institutional budgeting in higher education.

5603 Development and Organization of Adult and Continuing Education
(3-0) 3 hours credit.
Exploration of forms of continuing and adult education conducted by business and industry, the armed forces, educational institutions, and private foundations, including federal and state programs of support; external and alternative degree programs; the open university concept and self-study programs; general treatment of historical development.

5613 Methods in Adult and Continuing Education
(3-0) 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
(3-0) 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
(3-0) 3 hours credit.
The historical and philosophical foundations for the community junior college movement in the United States will be analyzed and utilized as a basis for understanding contemporary trends and problems of community junior colleges.
6103 **Effective Teaching in Higher Education**  
(3-0) 3 hours credit.  
A seminar that focuses on the image of the college professor and on a review of the current research on the teaching/learning process at the college or university level. Includes a review of educational psychology of the late adolescent and adult, an investigation of new and effective instructional methods, and an appraisal of evaluation procedures.

6951-3 **Independent Study**  
1 to 3 hours credit. Prerequisites: Graduate standing and permission in writing (form available) of the instructor, the student's Graduate Advisor, and the Division Director and Dean of the College in which the course is offered. 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.
The Division of Environmental Studies offers the Master of Arts degree and the Master of Science degree in Environmental Management. Each of these degrees is available with concentrations in Management of Human Resources, Management of Natural Resources, and Urban Studies.

Special Admission Requirements. Each application for admission to the Master's Degree program is evaluated by the Committee on Graduate Studies. Unconditional admission is granted a student who meets the university-wide graduate admission requirements and whose background is judged satisfactory. A student who fails to meet the university-wide requirements or whose background is judged inadequate for unconditional admission may be admitted on a conditional basis. One or more of the following courses, or others deemed necessary by the Committee on Graduate Studies, may be required as admission conditions and will be in addition to degree requirements:

- ECO 5003 Economic Theory and Policy
- EPS 5403 Earth Science
- MAT 5073 Methods of Statistics I

Degree Requirements. All candidates for the Master of Arts Degree and Master of Science Degree in Environmental Management are required to complete successfully a 36 semester hour program.

Concentration: Management of Human Resources

The Master of Arts Degree and Master of Science Degree in Environmental Management are available with a concentration in Management of Human Resources to students whose undergraduate degrees are in such areas as business, communications, economics, and the social sciences. The program is for those individuals to have the opportunity to prepare for careers in public management at the local, state, and federal levels and for people in mid-career who want to improve their professional qualifications.

Required Courses:
- ECO 5043 Public Managerial Economics
- ECO 6303 Economics of Human Resources
- ENV 5423 Employment and Training Programs
- ENV 6603 Environmental Systems Analysis
- ENV 6643 Concepts of Public and Environmental Management
- FIN 5043 Budgeting and Finance in the Public Sector

Elective Courses
Twelve (12) 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.

Required Practicum (6 hours from the following):
- ENV 6943 Workshop in Public and Environmental Management (3 or 6 hours)
MASTER OF ARTS AND MASTER OF SCIENCE DEGREES IN ENVIRONMENTAL MANAGEMENT

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 Independent Study 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.

Concentration: Management of Natural Resources

The Master of Arts Degree and Master of Science Degree in Environmental Management are available with a concentration in Management of Natural Resources 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.

Required Courses:
- ECO 5043 Public Managerial Economics
- ENV 5203 Human and Natural Resources
- ENV 5533 Environment and Systems
- ENV 6603 Environmental Systems Analysis

A minimum of 9 additional semester hours credit must be taken from the following courses:
- ENV 5723 Applied Geosciences
- ENV 6613 Applied Ecology
- ENV 6913 Decision Analysis for Public and Environmental Management
- ENV 6923 Modeling and Analysis of Environmental Systems
- CHE 5303 Environmental Chemistry
- EPS 5303 Environmental Physics

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.

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 Independent Study 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.

Concentration: Urban Studies

The Master of Arts Degree and Master of Science Degree in Environmental Management are available with a concentration in Urban Studies to students whose undergraduate degrees are in such areas as architecture, economics, engi-
neering, environmental design, and social sciences. The program is for those individuals to have the opportunity to prepare for careers in urban planning and urban design at the local, state, and federal levels and also for practicing planners who want to improve their professional qualifications.

**Required Courses:**

- ECO 5043 Public Managerial Economics
- ENV 5503 Urban Planning I
- ENV 5513 Urban Research Methods
- ENV 5523 Comparative Urban Development
- ENV 5533 Environment and Systems
- ENV 5553 Urban Planning II
- ENV 6513 Communication Skills for Public Management
- ENV 6603 Environmental Systems Analysis

**Elective Courses:**

Six (6) 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.

**Required Practicum** (6 hours from the following):

- ENV 6943 Workshop in Public and Environmental Management (3 or 6 hours)
- ENV 6963 Internship (3 to 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 Independent Study may be substituted for all or part of the Practicum requirements with the recommendation of the Committee on Graduate Studies and approval by the Division Director and Dean.

**COURSE DESCRIPTIONS**

**ENVIRONMENTAL MANAGEMENT (ENV)**

- **5203 Human and Natural Resources**
  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.

- **5323 Public Policy Formulation**
  3 hours credit.
  Processes through which public demands are generated, converted into form policy, and implemented. Focus is upon the role of the administrator and institutional-organizational contexts in which the administrator functions.

- **5353 Policy Issues in Public Services and Employment**
  3 hours credit.
  Offers the opportunity for preparation to make policy choices concerning municipal services and employment in an environment of constrained resources. Limitations of public institutions to meet public demands are reviewed. Issues such as evaluation of
public services, productivity analysis, job incentives, public awareness, budget techniques, and analysis of revenues are discussed.

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.

5383 Topics in Health Systems
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
This course covers topics in health systems. These may include: 1) consumer role in health care systems; 2) changing health care delivery patterns; 3) changing incentive structures; 4) national health insurance; and, 5) changing quality of care. May be repeated when subject matter is different.

5403 Health Effects of Environmental Pollutants
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
The effects of pollutants upon the health of human beings. Pulmonary irritants, ingested substances, and contact material in physiological systems and the effect on human health and disease.

5413 Economics of Health Systems
(3-0) 3 hours of credit.
The economics of health care financing and patterns of expenditure health care dollars. Evaluation techniques from the determination of need for medical service, availability of resources, and the public policy methods and solutions to resolve problems in health care.

5423 Employment and Training Programs
(3-0) 3 hours credit.
Explores the basic relationships that exist between unemployment, wages, inflation, and the institutions and policies which affect the labor market. The theories which explain the operation and structure of labor markets are background for analysis of policies designed to increase employment and productivity.

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.

5453 Planning and Management of Manpower Programs
(3-0) 3 hours credit. Prerequisite: ENV 5423.
The theory, history, and administration of public manpower programs is traced to the most recent Comprehensive Employment Training Act (CETA) amendments. Emphasis on structure, performance, management, and fiscal administration of manpower programs consistent with national economic goals.

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.

5513 Urban Research Methods
(3-0) 3 hours credit. Prerequisite: ENV 5503.
Study of the research process in urban and regional systems. Offers the opportunity for development of research proposals, questionnaires, and the application of analytical tools used in urban and regional systems. Areas covered include: basic information sources, survey methods, maps, aerial photographic interpretation, and economic base studies.
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 overtime. 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.

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.

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.

5553 Urban Planning II
(3-0) 3 hours credit. Prerequisites: ENV 5503, ENV 5513, or consent of instructor.
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.

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.

5733 Marine Environment and Resources
(3-0) 3 hours credit.
Study of characteristics, process, and resources of the marine environment with focus upon the application of technology in exploring and developing natural resources for the future.

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.

5823 Water Supply and Treatment
(3-0) 3 hours credit. Prerequisites: CHE 5303, a course in fluid mechanics or consent of instructor.
Discussion of the occurrence, collection, storage, distribution, transmission and quality of water; the physical and chemical methods of water treatment and conditioning; the methods involved in the design process and the selection of hardware.

5873 Water and Wastewater Treatment Unit Operations
(1-6) 3 hours credit. Prerequisites: ENV 5823, ENV 6893 or equivalent, and consent of instructor.
The application of the physical, chemical, and biological water and wastewater treatment unit processes on a bench or pilot scale. Experimentation is designed to comprehensively study the effects of operational parameters on these unit processes.

6203 Survey of Environmental Law
(3-0) 3 hours credit.
A survey of current law and statutory provisions related to environmental management. Skills in evaluating legal briefs, law reviews, and statutes will be developed.
6213  Governmental Regulation in Public and Environmental Management
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Course will concern two major aspects of governmental regulations: a) the extent and
purpose of the major federal legislation, b) the procedural operation pursuant to the
various acts as they would affect the environmental managers. The discussion of the
major state regulatory laws will be covered.

6223  Legal Regulation of Urban Systems
(3-0) 3 hours credit.
An analysis of the various legal controls that impact on land use, development and
planning practice in the U.S. Subjects include zoning, subdivision regulations, building
and housing codes, deed restriction, urban renewal, public development, and the legal
organization for planning implementation.

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.

6343  Manpower Planning and Programming: Models and Research
(3-0) 3 hours credit. Prerequisites: ENV 5423 and ENV 5453.
Prepresents technical tools utilized in planning and evaluating manpower programs.
Techniques include labor forecasting, industry-occupation analyses, input-output
methods, design of performance evaluation programs, measuring non-economic in­
puts of manpower programs, and development of manpower data sources and sys­
tems.

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.

6503  Urban Design
(3-0) 3 hours credit.
A study of the physical interrelationship among urban residential sectors, urban cores,
institutional areas, and circulation systems within the context of the natural environ­
ment. Scope of study extends from small groups of users to existing and new com­
munities.

6504  Urban Design Laboratory
(1-6) 4 hours credit. Prerequisite: ENV 6503 or consent of instructor.
The laboratory study will examine the complex interrelationships of open space, trans­
portation, infrastructure, and other major urban elements related to the economic, le­
gal, and institutional aspects of development on selected sites.

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 concep­
tualizing ideas: (1) small group programming, (2) slide video photography as a
device to portray situations, (3) writing, presenting, and producing a report.

6523  Community Planning and Development
(3-0) 3 hours credit.
Examination of the development of new communities and the redevelopment of older
areas including resource commitments and instruments for effectuation and im­
plementation.

6524  Community Planning and Development Laboratory
(1-6) 4 hours credit. Prerequisite: ENV 6523 or consent of instructor.
Field problems in the major phases of new town development and the redevelopment
of older urban areas. A practical application of previously studied tools and tech­
niques.
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.

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.

6803 Environmental Systems Analysis
(3-0) 3 hours credit. Prerequisites: MAT 1033, STA 1053; previous or concurrent enrollment in ECO 5043; 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 Natural 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.

6633 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.

6813 Water Management
(3-0) 3 hours credit.
Application of management principles to the efficient utilization of water resources by society. Study water as a resource, its value, uses and changing role over time. Formulation of public policy toward water resources is studied.

6823 Land Management
(3-0) 3 hours credit.
Analysis of alternative land uses and the methodology by which land use is evaluated. The changing role of land as a resource as it is related to human and technological development is examined. Legal dimensions of natural resources will be considered.

6833 Mineral Resources
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
The origin, geologic setting and distribution of metallic and non-metallic mineral deposits and fossil fuels. Resources and reserves. Uses, economic conditions, exploration and development methods for mineral commodities. Work with specimens, maps, sections, and mineral data.
6843 Groundwater Management
(3-0) 3 hours credit.
Study of the characteristics, occurrence, distribution, transport, quality, and consumption of groundwater resources with emphasis placed on efficient usage and conservation; flow in porous media; well hydraulics; and basin wide development and management.

6853 Energy Resources Management
(3-0) 3 hours credit. Prerequisite: Physical Science background or the consent of instructor.
The flow of energy through agricultural 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.

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 citizens' 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 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.
DIVISION OF SPECIAL PROGRAMS

The Division offers a limited number of support courses in the area of Criminal Justice.

COURSE DESCRIPTIONS

CRIMINAL JUSTICE (CRJ)

5003 Crime and Justice in America
(3-0) 3 hours credit. Prerequisite: Graduate standing.
Examination of the phenomenon of crime in America. Study of social institutions and processes through which criminal behavior is defined. Analysis of societal response to crime emphasizing the interdependence of criminal justice agencies. Critical cultural as well as administrative aspects of the criminal justice process are examined.

5043 Seminar in Criminal Ecology and Etiology
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Analysis of major theories concerning criminal and delinquent behavior ranging from legalistic to psychoanalytic explanation. Examination and evaluation of methods and programs of prevention, control, and treatment in relation to criminal justice agencies.

5063 Criminal Justice: Policy Issues
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Examines public policy issues relating to the administration of justice. Implications of interagency relationships at all levels of government; the impact of cultural milieu and social change on the development and implementation of policy by criminal justice agencies; and community involvement in the control and prevention of crime.

5163 Seminar in Security Administration
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
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. Prerequisite: Consent of instructor.
A study of correctional components of the criminal justice system including institutional and community based. Reviews impact of legal and social change on correctional agencies. Emphasis on planning and evaluation of innovative programs.

5553 Seminar in Police Administration
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
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. Prerequisite: Consent of instructor.
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 its various component parts.

5813 Seminar in Judicial Administration
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Review and analysis of problems and issues relating to the administration of the judicial component of the criminal justice system. Evaluation of relative effectiveness of various existing models.

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 six (6) hours, regardless of discipline, will apply to a Master's Degree.
COLLEGE OF SCIENCES AND MATHEMATICS
DIVISION OF ALLIED HEALTH AND LIFE SCIENCES

MASTER OF SCIENCE DEGREE IN BIOLOGY

The graduate program in biology offers opportunities to those students who desire advanced education in specialized areas of the life sciences. Two degree options are available: a thesis program offered to those desiring the opportunity to develop expertise in research design and methodology; and a non-thesis program, offered to those students who wish the opportunity to obtain the M.S. degree through course work. The thesis option offers the opportunity to gain in-depth knowledge of a specialized field of interest and is recommended for the student planning a research career. The non-thesis program is particularly suitable for individuals teaching in the life sciences.

Graduate faculty in areas such as Biochemistry, Cellular Biology, Developmental Biology, Ecology, Genetics, Immunology, Microbiology, Molecular Biology, Neurobiology, Physiology, and Plant Sciences offer the opportunity for students to gain a foundation for the Division's interdisciplinary graduate program. A special program in marine biology and ecology is available in collaboration with the Marine Science Institute of The University of Texas located at Port Aransas, Texas. Due to the multidisciplinary nature of the Division, students may pursue studies in a number of interdisciplinary areas such as Cell and Molecular Biology, Ecological Systems and Regulatory Biology. Individual programs are organized around each student's interests in consultation with the student's Graduate Advisor.

Special Admission Requirements. Ordinarily, applicants are expected to have completed an undergraduate major in biology. It is strongly recommended that students have at least one semester of organic chemistry and calculus. Students whose undergraduate preparation is not adequate to pursue the graduate program will be required to complete the necessary courses as conditions of admission. Those students who have less than full preparation should anticipate that additional time will be required to complete the degree.

Degree Requirements. All candidates for the degree are required to complete successfully 36 semester hours of graduate credit as recommended by the Committee on Graduate Studies and approved by the Division Director and Dean. 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.
2. An additional 12-15 hours of coursework as approved by the Committee on Graduate Studies and approved by the Division Director and Dean.
3. A student electing the non-thesis program is required to complete 3 hours of BIO 6951-3, Independent Study, in addition to 18 hours in organized classes in the Division.
4. If a student elects the thesis program, 6 hours of BIO 6983, Master's Thesis, must be completed in addition to the 18 hours in organized classes within the Division.

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

BIOLOGY
(BIO)

5011  Life Sciences Colloquium
(1-0) 1 hour credit. Prerequisite: Graduate standing.
Current research presented by faculty, visiting lecturers and thesis candidates. May be repeated for credit. A maximum of 2 hours credit may be applied to the M.S. degree.

5041  Graduate Seminar in Life Sciences
(1-0) 1 hour credit. Prerequisite: Graduate standing.
An opportunity for graduate students to participate in a weekly seminar program under the supervision of a faculty member. Graduate students will not only be responsible for the content of the program, but will also present the seminars. May be repeated for credit.

5052  Seminar in Life Sciences
(2-0) 2 hours credit. Prerequisite: Graduate standing.
Discussions, current literature and recent advances in specialized areas of Allied Health and Life Sciences. Seminars are organized according to areas of interest and may be repeated for credit.

5233  Environmental and Population Biology
(3-0) 3 hours credit. Prerequisite: Graduate standing or consent of instructor.
The role of the environment in population regulation and control. To include topics such as environmental cycles of the past and subsequent population changes, human alterations of the environment and their consequences.

5263  Microbial Ecology
(3-0) 3 hours credit. Prerequisite: BIO 3713.
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.

5271  Microbial Ecology Laboratory
(0-3) 1 hour credit.
Must be taken concurrently with BIO 5263.

5283  Urban Wildlife Management
(3-0) 3 hours credit. Prerequisite: Consent of instructor.
Commensal and noncommensal vertebrates that cause severe economic and health problems for mankind will be studied.

5313  Cytogenetics
(3-0) 3 hours of credit. Prerequisite: BIO 2313 or the equivalent.
An analysis of chromosome structure and function, gene location, crossing-over and variations in chromosome structure and number.

5321  Cytogenetics Laboratory
(0-3) 1 hour credit.
Must be taken concurrently with BIO 5313.

5333  Ecological Genetics
(3-0) 3 hours credit. Prerequisites: BIO 2313 and BIO 2322 or the equivalent. Biostatistics highly recommended.
An experimental approach to the interaction of genotype and environment in populations with emphasis on mutagenesis, selection, polymorphism, and adaptive mechanisms.

5341  Ecological Genetics Laboratory
(0-3) 1 hour credit.
Must be taken concurrently with BIO 5333.

5353  Molecular and Biochemical Genetics
(3-0) 3 hours credit. Prerequisites: BIO 2313 and BIO 3513 or the equivalent.
Molecular and biochemical aspects of structure, replication, mutation and phenotypic expression of genetic material.
5363  **Microbial Genetics**  
(3-0) 3 hours credit. Prerequisites: BIO 2313 and BIO 3713 or the equivalents and BIO 5353.  
A study of bacterial, fungal and viral genetics. Emphasis on the current literature, data interpretation, and experimental techniques.

5404  **Advanced Mammalian Physiology**  
(4-0) 4 hours credit. Prerequisite: BIO 3413 or the equivalent.  
Physiology of the organs and organ systems of mammals.

5412  **Advanced Mammalian Physiology Laboratory**  
(0-6) 2 hours credit.  
Must be taken concurrently with BIO 5404.

5422  **Neuroanatomy**  
(2-0) 2 hours credit. Prerequisite: Consent of instructor.  
The anatomy of the vertebrate nervous system.

5434  **Neurophysiology**  
(4-0) 4 hours credit. Prerequisites: AHS 4413 or equivalent and BIO 5422 or concurrent enrollment.  
Physiology of the mammalian nervous system. Emphasis on sensory and motor systems and neural correlations of behavior.

5463  **Reproductive Physiology**  
(3-0) 3 hours credit. Prerequisites: Courses in organ systems physiology and endocrinology or consent of instructor.  
A comparative study of mammalian reproduction with emphasis on the human, including cellular and systems mechanisms, hormonal regulation, and the effects of environmental factors.

5471  **Reproductive Physiology Laboratory**  
(0-3) 1 hour credit.  
Must be taken concurrently with BIO 5463.

5513  **Graduate 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; regulation.

5533  **Enzymes Laboratory**  
(0-9) 3 hours credit. Must be taken concurrently with BIO 5523.  
Enzyme isolation; analysis for purity and structure; enzyme kinetics.

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**  
(0-3-9) 1 to 3 hours credit. Prerequisite: Consent of instructor.  
Topics will include research methods in cell and molecular biology, ecology, and regulatory biology. May be repeated for credit as topics vary.

5633  **Cytodifferentiation**  
(3-0) 3 hours credit. Prerequisite: Graduate standing in the Life Sciences.  
Detailed study of selected areas of developmental biology relating to cellular differentiation, including nuclear-cytoplasmic interactions, induction and reversibility of differentiation.

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.
5751 **Biochemical Virology Laboratory**
(0-3) 1 hour credit. Must be taken with or following BIO 5743.

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.

6112 **Advanced Plant Physiology**
(2-0) 2 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.

6122 **Advanced Plant Physiology Laboratory**
(0-6) 2 hours credit. Must be taken concurrently with BIO 6112.
Techniques used in plant physiology, relating to ion uptake, respiration, photosynthesis, transpiration and action of plant hormones.

6132 **Methods in Field Ecology**
(2-0) 2 hours credit. Prerequisite: Consent of instructor.
Examination of techniques to collect, identify, and preserve plants and animals. Field methods used in the analysis of populations and communities will be considered.

6142 **Methods in Field Ecology Laboratory**
(0-6) 2 hours credit. Must be taken concurrently with BIO 6132.
Application of field techniques used to collect, identify, and preserve organisms, and to study populations and communities. Will involve frequent and extensive (several days) field trips to the major biomes in Texas and adjoining states.

6212 **Advanced Plant Ecology**
(2-0) 2 hours credit. Prerequisite: Undergraduate plant ecology or consent of instructor.
Interaction of terrestrial plants with their environment, allelopathy and competition, plant distribution, succession, and factors that control plant growth and dispersal. Special consideration will be given the concepts of climax and succession, and land management.

6222 **Advanced Plant Ecology Laboratory**
(0-6) 2 hours credit.
Must be taken concurrently with BIO 6212.
Techniques and quantitative measurements used in plant ecological research will be demonstrated. Field trips will include the major plant communities in Texas.

6252 **Advanced Animal Ecology**
(2-0) 2 hours credit. Prerequisite: BIO 3213 or consent of instructor.
Interaction of terrestrial animals with their environment; discussion of factors that affect animal distribution, populations, and the biotic and abiotic factors that control growth and dispersal in relation to habitat management.

6262 **Advanced Animal Ecology Laboratory**
(0-6) 2 hours credit. Must be taken concurrently with BIO 6252.
Methods and techniques used to estimate various types of animal populations. Field trips will include major habitats found in Texas.

6273 **Marine Ecology**
(3-0) 3 hours credit. Prerequisite: BIO 4003 or consent of instructor.
Marine communities and the chemical, physical, and biological factors that influence them.

6282 **Marine Ecology Laboratory**
(0-6) 2 hours credit. Must be taken concurrently with BIO 6273.
Field examination and laboratory analysis of representative marine communities in Texas. Weekend field trips required.

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.
6381 Invertebrate Physiology Laboratory
(0-3) 1 hour credit.
Must be taken concurrently with BIO 6373.

6463 Environmental Physiology
(3-0) 3 hours credit. Prerequisite: BIO 3413 or the equivalent.
Physiological responses to heat, cold, light, social stimuli and atmospheric pressure in the vertebrate organisms.

6471 Environmental Physiology Laboratory
(0-3) 1 hour credit.
Must be taken concurrently with BIO 6463.

6483 Animal Behavior
(3-0) 3 hours credit. Prerequisite: BIO 3413.
Origins and trends of major behavioral patterns with emphasis on organization and adaptive significance. Neural, endocrine, genetic and environmental factors modifying behavior will be examined.

6491 Animal Behavior Laboratory
(0-3) 1 hour credit. Must be taken concurrently with BIO 6483.

6643 Cellular and Molecular Biology
(3-0) 3 hours credit. Prerequisites: BIO 3513 and BIO 3813 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.

6671 Experimental Parasitology Laboratory
(0-3) 1 hour credit.
Must be taken concurrently with BIO 6663.

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.

6782 Diagnostic Microbiology
(2-0) 2 hours credit. Prerequisites: AHS 4792 and consent of instructor.
Recent developments in principles and techniques of diagnostic and epidemiologic microbiology with applications in the clinical laboratory.

6791 Diagnostic Microbiology Laboratory
(0-3) 1 hour credit.
Must be taken concurrently with BIO 6782.

6803 Immunology and Immunoochemistry
(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.

6813 Information Retrieval: Biomedical Applications
(3-0) 3 hours credit. Prerequisite: CS 1713 or the equivalent, or consent of instructor.
Reporting, analysis, storage retrieval of biomedical data; emphasis on application of systems analysis to epidemiology of hospital infections, environmental control, fate of clinical reports.

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.
6881  Microbial Physiology Laboratory
(0-3) 1 hour credit.
Must be taken concurrently with BIO 6873.

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, may be applied to the Master's degree.

6983  Master's Thesis
3 hours credit. Prerequisites: Admission to candidacy and permission of the Graduate Advisor and thesis director. Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress.
DIVISION OF EARTH AND PHYSICAL SCIENCES
MASTER OF SCIENCE DEGREE IN CHEMISTRY

The purpose of the graduate program in chemistry is to offer the student the opportunity to 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, inorganic chemistry, macromolecular chemistry, organic chemistry, physical chemistry and chemical physics.

Faculty expertise in each of the offered 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.

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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 5113</td>
<td>Advanced Organic Chemistry I</td>
<td>(3 semester hours)</td>
</tr>
<tr>
<td>CHE 5133</td>
<td>Advanced Inorganic Chemistry I</td>
<td>(3 semester hours)</td>
</tr>
<tr>
<td>CHE 5163</td>
<td>Advanced Instrumental Analysis</td>
<td>(3 semester hours)</td>
</tr>
<tr>
<td>CHE 5213</td>
<td>Chemical Thermodynamics</td>
<td>(3 semester hours)</td>
</tr>
<tr>
<td>CHE 5271</td>
<td>Graduate Seminar in Chemistry</td>
<td>(3 semester hours)</td>
</tr>
<tr>
<td>CHE 6983</td>
<td>Master's Thesis, including an oral defense of the written thesis.</td>
<td>(6 semester hours)</td>
</tr>
</tbody>
</table>

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.

A minimum of 6 semester hours, as recommended by the Committee on Graduate Studies and approved by the Division Director and Dean, are required from one of the following interest areas:

1. For Analytical and Environmental Chemistry:
   - CHE 5143 Advanced Analytical Chemistry
   - CHE 5303 Environmental Chemistry
CHE 5323 Chemistry and Physics of the Atmosphere
CHE 5333 Chemistry and Physics of Liquid and Solid Pollutants
CHE 5433 Computer Analysis of Instrumental Data
CHE 6143 Electrochemistry
CHE 6153 Diffraction Methods of Structural Analysis

2. For Bio-organic Chemistry:
CHE 5153 Biochemical Structure and Reactions of Organic Macromolecules
CHE 5503 Bio-organic Chemistry
CHE 5513 Biophysical Chemistry
CHE 6113 Advanced Organic Chemistry II
CHE 6173 Topics in Medicinal and Pharmaceutical Chemistry
CHE 6183 Topics in the Chemistry of Natural Products

3. For Inorganic Chemistry:
CHE 5223 Chemical Kinetics
CHE 5523 Bio-inorganic Chemistry
CHE 5613 Applications of Symmetry
CHE 6133 Advanced Inorganic Chemistry II
CHE 6153 Diffraction Methods of Structural Analysis

4. For Macromolecular Chemistry:
CHE 5423 Synthesis of Macromolecules
CHE 5443 Polymer Chemistry
CHE 5633 Physical Chemistry of Macromolecular Systems

5. For Organic Chemistry:
CHE 5413 Advanced Organic Laboratory
CHE 6113 Advanced Organic Chemistry II
CHE 6123 Methods of Organic Synthesis

6. For Physical Chemistry and Chemical Physics:
CHE 5223 Chemical Kinetics
CHE 5243 Quantum Chemistry
CHE 5613 Applications of Symmetry
CHE 5623 Statistical Thermodynamics
CHE 6143 Electrochemistry
CHE 6153 Diffraction Methods of Structural Analysis

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.
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 electrotanalytical 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**
(2-3) 3 hours credit. Prerequisites: CHE 3223 and CHE 3232. A study of theory and analytical practice of mass spectrometry, NMR, I.R., U.V., AA, liquid chromatography, fluorescence, Mossbauer and X-ray electron spectroscopy.

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 phenomenon in inorganic and organic systems.

5243 **Quantum Chemistry**
(3-0) 3 hours credit. Prerequisites: CHE 4253 and MAT 2213 or consent of instructor. A study of concepts and methods of quantum mechanics with emphasis on the nature of the chemical bond and the interaction of electromagnetic radiation with molecules.

5271 **Graduate Seminar in Chemistry**
(0-3) 1 hour credit. Prerequisite: Graduate standing in chemistry or consent of the Division Director. Current research seminars presented by faculty, visiting lecturers, and Master's candidates. Chemistry Master's Degree seeking students must register every semester while in residence, but only 3 hours of credit will apply towards the Master's Degree.

5303 **Environmental Chemistry**
(2-3) 3 hours credit. Prerequisite: One year of undergraduate chemistry or consent of instructor. An introductory course relating basic inorganic, organic, physical and biochemical principles to environmental problems. Analytical methods used in environmental control are considered.
5323 Chemistry and Physics of the Atmosphere
(3-0) 3 hours credit. Prerequisite: CHE 5303 or consent of the instructor.
Chemical and photochemical processes in the troposphere and stratosphere. Generation and chemical modifications of atmospheric pollutants, transport phenomena. Physical and chemical methods of detection of air pollutants.

5333 Chemistry and Physics of Liquid and Solid Pollutants
(3-0) 3 hours credit. Prerequisite: CHE 5303 or consent of the instructor. Polycrystalline, colloid, and clathrate aggregations, their growth and aging. Absorption, chemisorption, and ion exchange processes. Methods of detection and analysis of solid and liquid pollutants.

5413 Advanced Organic Laboratory
(0-8) 3 hours credit. Prerequisite: CHE 4243 or concurrent enrollment in CHE 5113 or the consent of the instructor. Laboratory techniques for advanced organic/bio-organic synthesis. Identification and purification of synthetic products involving multistep sequences. Study of organic/bio-organic reaction mechanisms through experimental techniques (kinetics, stereochemistry).

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.

5443 Polymer Chemistry
(3-0) 3 hours credit. Prerequisite: CHE 5423 or consent of instructor. Preparation, structure and properties of addition, condensation, block and graft polymers. Chemical modifications, cross-linking and mechanisms of polymer reactions will be discussed.

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.

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. Prerequisites: 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.

6113 **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 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.
The graduate program in Mathematics, Computer Science, and Systems Design offers opportunities for training in both mathematics and computer science. The courses recommended in computer science and systems design incorporate the basic concepts suggested by the Institute of Electrical and Electronics Engineers Computer Society and the Association for Computing Machinery curricula groups. Because of the heterogeneous backgrounds and interests of students in this area, a multi-track program is available. Students, upon consultation with the graduate advisor, may select degree programs ranging from mathematics or statistics to a computer science or digital systems design orientation. Additionally, students may supplement mathematics, statistics, computer science, and systems design courses with approved courses from other disciplines.

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 degree.

Degree Requirements. All candidates for the 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.

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 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.

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 and Human Relations
(3-0) 3 hours credit. 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.

For teachers of all disciplines who must acquire a basic course in computers so as to be able to put into perspective the issues and problems associated with computers; society; and the various disciplines.

5023 Computers and Mathematics for Teachers
(3-0) 3 hours credit. 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 course, for inservice mathematics teachers, which is a study of how mathematics may be structured and developed through computer oriented algorithms.

5033 Basic Concepts of Computer Science I
(3-0) 3 hours credit. Prerequisite: Knowledge of some programming language. May not be counted toward Master of Science Degree in Mathematics, Computer Science and Systems Design. Designed for students who have not taken 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 Master of Science Degree in Mathematics, 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, data base design, composite object construction, and hidden-surface algorithmic techniques. Specifically, the emphasis is on vector graphic devices and on the production of high-resolution images.

5233 Artificial Intelligence and Cognitive Science, an Appreciation
(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, and pattern recognition; it is also a study of topics in cognitive science such as machine learning, concepts formation, representing knowledge and natural language understanding.

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.

COURSE DESCRIPTIONS  
MATHEMATICS (MAT)

5003 Modern Mathematics for Teachers  
(3-0) 3 hours credit. 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 practical orientation concerned with the classroom uses of mathematics for teachers of K-12.

5013 Mathematics for Inservice Teachers  
(3-0) 3 hours credit. 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.  
General topics course for practicing teachers wherein the orientation is selected by both the instructor and the teacher participants.

5153 Real Analysis I  
(3-0) 3 hours credit. Prerequisite: MAT 2213; MAT 3213 recommended but not required.  
A study of the foundations of analysis, rigorous treatment of continuity, differentiation and integration.

5163 Real Analysis II  
(3-0) 3 hours credit. Prerequisite: MAT 5153.  
Continuation of MAT 5153. Areas of study include sequences and series of functions, the Stone-Weierstrass theorem, special functions, differentiation and integration of functions of several variables.

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 MAT 5163 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 2213.
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.

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.

5803 **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.  

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.

5613 **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.

5623 **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.

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.

**5213  Bioassay**  
(3-0) 3 hours credit. Prerequisite: STA 3523 or consent of instructor. Estimation of relative potency, quantitative or quantal responses, probits, normits, logits. Methods for analyzing data based on counts.

**5253  Applied Time Series Analysis**  
(3-0) 3 hours credit. Prerequisite: STA 3523 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 3523 or consent of instructor. Methods and theory of non-parametric statistics.

**5503  Probability and Statistical Theory**  
(3-0) 3 hours credit. Prerequisite: STA 3523 or consent of instructor. Axioms of probability, random variables and their distributions, mathematical techniques.

**5513  Mathematical Statistics and Inference**  
(3-0) 3 hours credit. Prerequisite: STA 5503 or consent of instructor. Theory and applications of statistics. Sampling distributions, tests of hypotheses, point and interval estimation.

**5553  Bayesian Statistics**  
(3-0) 3 hours credit. Prerequisite: STA 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. 
Basic theory of stochastic processes and applications. Second order processes, Markov chains and processes, renewal theory, queueing theory.

5713  **Linear Models I**  
(3-0) 3 hours credit. Prerequisites: STA 3523 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 3523. 
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 3523. 
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 maximum chi-square and logit chi-square, measures of association. Models for discrete data.

5903  **Theory of Reliability and Life Testing**  
(3-0) 3 hours credit. Prerequisite: STA 5503. 
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.
**COURSE DESCRIPTIONS**

**SYSTEMS DESIGN (SD)**

5203 **Mathematical Methods for Process Control**  
(2-2) 3 hours credit. Prerequisite: MAT 2213 or consent of instructor.  
Applications to data acquisition and process control of Fourier series and Fourier transforms, the fast Fourier transform, digital filtering, parameter estimation techniques.

5703 **Microprogramming I**  
(3-0) 3 hours credit. Prerequisite: SD 3843.  
Computer design philosophies based on microprogrammed architecture. Microprogram control organization, design of microprograms to implement the full instruction set of a typical minicomputer.

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 most major commercially available devices. Areas of study include the use of microcomputers for logic design, particularly I/O controllers and for process control applications.

5743 **Input-Output Subsystems for Minicomputers**  
(2-2) 3 hours credit. Prerequisite: SD 3843.  
An in-depth study of the organization and design of input-output controllers such as for discs, printers, teleprocessing; special controllers for process control applications.

6603 **Optimization Techniques in Operations Research**  
(3-0) 3 hours credit. Prerequisites: MAT 2213, MAT 2233 or consent of instructor.  
Analysis and application of optimization techniques in operations research. Emphasis on linear programming, non-linear programming, integer programming.

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.

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

**COURSE DESCRIPTIONS**

**COMPUTER SCIENCE/SYSTEMS DESIGN (CSD)**

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.
INDEX

Academic Records, release of, 63
Standing, 57
Accommodations, Living, for students, 46
Accounting and Business Data Systems Division of, 79
Accounting, course descriptions, 81
Master of Professional Accounting Degree, 79
Accreditation, 26
Adding Courses, 56
Address, change of, 64
Administration
UT San Antonio, 13
UT System, 12
Administrative Staff, 14
Admission
application dates, 53
as graduate degree-seeking students, 50
for certificate endorsements, 53
as special student at the graduate level, 51
as transient student at the graduate level, 51
of international students, 52
procedures, 53
re-admission policies and procedures, 54
for teacher certification, 53
temporary, 52
to candidacy, 68
university-wide graduate requirements, 66
Allied Health and Life Sciences Division of, 159
Anthropology
MA degree, 117
course descriptions, 118
Application
dates, 69
for a degree, 69
Art and Design Division of, 95
Art
course descriptions, 95
Art History and Criticism course descriptions, 97
Athletics, 46
Auditing
charges for, 36
courses, 57
Bad Check Charge, 35
Bicultural-Bilingual Studies
MA degree, 123
concentrations, 123
course descriptions, 128
Division of, 123
Bicultural-Bilingual Teacher Education, concentration, 123
Bicultural Studies, concentration, 125
Biology
MS degree, 159
course descriptions, 160
Board of Regents
Rules and Regulations, 44
UT System Administration, 12
Bookstore, UT San Antonio, 29
Business Administration
Master’s Degree in Business, 76
Master’s Degree in Interamerican Management, 77
Business, College of, 76
Business Law
course descriptions, 84
Cafeteria, UT San Antonio, 29
Calendar, UT San Antonio, 4
Cancellation of Enrollment, 58
Candidacy, Admission to, 68
Career Planning and Placement Center, 45
fee, 38
Catalog of Graduation, 67
Center for Learning and Development Research in Education, 28
Center for Studies in Business, Economics, and Human Resources, 27
Center for Applied Research and Technology, 28
Center for Archaeological Research, 27
Certification Student admission as a graduate-level teacher, 53
Change
of address, 64
of degree, 62
of grades, 61
of major, 62
of name, 63
Charges
  auditing courses, 36
  bad check, 35
  payment of, 32
  replacement of student identification card, 35
  transcript, 35
Chemistry
  MS degree, 165
  course descriptions, 167
Classification System, Graduate Student, 59
Class Participation Policy, 62
College Work, previous declaration of, 53
Comparative Literature
course descriptions, 109
Comprehensive Examination, 68
Computer Center, 27
Computer Science
course descriptions, 173
Computer Science/Systems Design
course descriptions, 179
Correspondence and extension courses, 67
Counseling Center, 44
Course
  numbering system, 59
Courses
  adding, 56
  auditing, 57
  correspondence and extension, 67
  counted for another degree, 67
  dropping, 56
  repeating, 60
Credit
  by examination, 67
  limitation on undergraduate credit counted toward Master's degree, 67
  time limitation on applying credit toward Master's degree, 70
  transfer of, 66
Criminal Justice
course descriptions, 158
Cultural Foundations of Education
  concentration, 132
Curriculum and Instruction
  concentration, 132
course descriptions, 135
Deans, 13
Debts Owed The University, 41
Declaration of previous college work attempted, 53
Degree
  additional, 70
  application for, 69
  change of, 62
  fee for application, 34
  limitation on undergraduate credit counted toward Master's degree, 67
  options for Master's degree, 68
  regulations, 65
  student, 59
  time limitation on applying credit toward Master's degree, 67
  University-wide requirements for Master's degree, 66
Degree Programs for 1980-82, Summary of, 72
Deposit, General Property, 38
Deposit, Library, Limited Borrower's, 35
Directory Information, 46
Dishonesty, Scholastic, 63
Division Directors, 15
Dropping Courses, 56
Duplicate Fee Receipt, 38
Early Childhood and Elementary Education
  concentration, 132
course descriptions, 138
Earth and Physical Sciences
  course descriptions, 170
Division of, 165
Economics and Finance
  Division of, 84
Economics
course descriptions, 84
Education
  MA degree, 132
  concentrations, 132
course descriptions, 140
Division of, 132
Educational Management
  concentration, 132
course descriptions, 141
Educational Psychology
course descriptions, 142
Educational Psychology/Counseling and Guidance
  concentration, 133
Health Services for Students, 44
Higher Education
  course descriptions, 146
Hispanic Culture, concentration, 105
Hispanic Literature, concentration, 105
History
  MA degree, 112
  course descriptions, 113
History of UT San Antonio, 24
Hours
  attempted, 60
  earned, 60
Humanities and Social Sciences, College of, 101
Identification Card, 46
"Incomplete," grades of, 61
Information Directory, 188
Institutions of Higher Education, concentration, 133
Insurance, Professional Liability (malpractice), 39
Interamerican Management MBA degree, 77
International Students
  admission of, 52
  tuition rate schedule for, 32
John Peace Library, 26
Laboratory Fee, 36
Late Registration, 56
Late Registration fee, 35
Library Fines, 35
Limitation on Undergraduate Credit Counted Toward a Master's degree, 70
Linguistics
  course descriptions, 110
Living Accommodations for students, 46
Lost and Found, 47
Lutcher Center, 27
Major, change of, 62
Management and Marketing
  Division of, 89
Management
  course descriptions, 89
Management of Human Resources concentration, 149
Management of Natural Resources concentration, 150
Maps, 186
Marketing
  course descriptions, 92
Master's Degrees
  additional, 70
  limitation on undergraduate credit toward, 67
  options for, 68
  thesis requirements, 69
  time limitation on applying credit toward, 70
  University-wide requirements, 66
Mathematics
  course descriptions, 174
Mathematics, Computer Science and Systems Design
  MS degree, 172
  Division of, 172
Multidisciplinary Studies, College of, 123
Music
  course descriptions, 98
  Division of, 98
  Master's degree, 98
Name, change of, 63
Nonresidents, tuition rate schedule for, 32
"No Report," grade of, 61
Numbering System, course, 59
Options for Master's degrees, 68
Organization, UT San Antonio, 25
Orientation, 47
Parking Fees, 36
Part-time student, 59
Penalty of Tuition under Incorrect Residence Classification, 34
Placement Center, 45
Political Science
  course descriptions, 121
Postponement of Final Examination Procedures, 62
Prerequisites, 60
Professional Accounting, Master's degree, 79
Purpose and Philosophy of UT San Antonio, 24
Re-admission Policies and Procedures, 54
Refund Policy, 40
Regents
  Board of, 12
  Rules and Regulations, 44
Registration, 56
  late, 56
  late fee, 35
Regulations
  Master's degree, 65
  residence, 33
Reinstatement, petition for, 59
Release of Transcripts and Academic
  Records, 63
Repeating Courses, 60
Reports, grade, 61
Requirements for Master's
  degree, University-wide, 66
Requirements for Thesis, 69
Research Center for the Arts, 28
Residence
  regulations, 33
Residents, tuition rate schedule
  for, 32
Scholastic Dishonesty, 63
Sciences and Mathematics,
  College of, 159
Secondary Education
  course descriptions, 147
Social Sciences
  Division of, 112
Sociology
  course descriptions, 122
Spanish
  MA degree, 105
  course descriptions, 106
Spanish Language
  concentration, 105
Special Programs
  Division of, 158
Statistics
  course descriptions, 177
Student
  graduate classification system, 59
  degree seeking, 59
  full-time and part-time, 59
  identification card charge, 46
  service fee, 34
Students, Institutional Policies
  Concerning
    athletics, 46
    counseling center, 44
    financial aid, 45
    handicapped, 47
    health services, 44
  identification cards, 46
  international, 47
  living accommodations, 46
  lost and found, 47
  placement center, 45
  responsibilities under the
    Rules and Regulations of the
    Board of Regents, 44
Summary of Graduate Degree
  Programs and Support Areas
  for 1980-82, 72
Supplementary and Special Fees, 36
Support Areas, Summary of, 72
Systems Design
  course descriptions, 179
Teacher Placement Service, 46
  fee, 39
Temporary Placement Service, 52
Testing Center, 44
Thesis
  binding fee, 35
  requirements, 69
Time Limitation on Applying Credit
  Toward a Master's degree, 70
Transcripts, UT San Antonio, 63
  charge for, 35
  release of, 63
Transfer of Credit, 66
Transient Student
  admission as, 51
  definition of, 51
Tuition
  concurrent, 33
  exemption from, 39
  foreign students, 32
  nonresidents, 32
  payment and refund policies, 132
  payments of, 32
  penalty under incorrect
    residence classification, 34
  residence regulations, 33
  residents, 32
  schedule of rates for residents,
    nonresidents, and international
    students, 32
Urban Studies, concentration, 150
Verification of Enrollment, 57
Withdrawal Procedures, 58
SAN ANTONIO AREA MAP
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. Offices and classrooms of the Division of Continuing Education are located on HemisFair Plaza in downtown San Antonio. The telephone number for the Division is (512) 227-9147.

Academic Advisement
  Declared majors .......................................................... College Deans
  Academic Degree Programs ............................................ College Deans

Admission
  Undergraduate and Graduate ......................................... Director of Admissions

Career Planning ............................................................. Director of Career Planning and Placement Center

Changes in Enrollment .................................................. Registrar
Continuing Education ........................................................ Dean of Continuing Education
Degree Application .......................................................... Registrar

Financial Aid, Loans, or Scholarships .................................. Director of Student Financial Aid
Financial Matters ............................................................. Business Manager
General Information .......................................................... Director of Admissions
Handicapped Students ...................................................... Director of Community and Student Affairs

Health Services ............................................................... Student Health Center
International Students ....................................................... Director of Community and Student Affairs

Parking ................................................................. University Police
Placement Service
  Teacher .................................................................. Director, Office of Teacher Certification and Placement Center
  Non-Teacher ................................................................. Director of Career Planning and Placement Center

Psychological Counseling .................................................. Director of Counseling Center
Recreational Activities ...................................................... Director of Athletics
Refunds ........................................................................ Business Manager
Registration ................................................................... Registrar
Residency ........................................................................ Registrar
Student Activities ............................................................. Dean of Students
Student Employment .......................................................... Director of Student Financial Aid
  Director of Career Planning and Placement Center
Student Services ............................................................... Dean of Students
Teacher Certification Program .............................................. Director, Office of Teacher Certification and Placement Center

Transfer of Credit ............................................................... Registrar
Transcripts ........................................................................ Registrar
Veterans’ Affairs ............................................................... Registrar
Withdrawal from University ................................................ Registrar

