With respect to the admission and education of students, with respect to the availability of student loans, grants, scholarships, and job opportunities, with respect to the employment and promotion of teaching and nonteaching personnel, and with respect to the student and faculty activities conducted on premises owned or occupied by the University, The University of Texas at San Antonio shall not discriminate either in favor of or against any person on account of sex, race, creed, color, or national origin.
This Graduate Catalog is the first official academic publication of The University of Texas at San Antonio. As such, it does not necessarily reflect in all details either the format or content of succeeding editions, when the University will have become fully operational on its permanent campus. It does, however, contain the information necessary for a prospective graduate student to plan his particular degree programs with the aid of administrative and faculty advice and to become acquainted with many of the procedures and regulations that are vital to the efficient service the University will strive to provide.

As a new institution, operating in temporary facilities for its first year, the University will be undergoing a type of learning process along with its initial student body. Consequently, it is to be expected that modifications will be made in some of the operational procedures and regulations, always in an effort to serve the students more effectively and to function with greater administrative efficiency.

This Catalog is of great importance to the beginning UTSA graduate student; of equal importance is the availability of the University's staff for personal consultation regarding any questions whatsoever. It is my personal commitment that UTSA be a student-oriented institution in the best possible sense of the term, and I encourage you to telephone or to visit personally those members of our staff who can be most helpful in connection with your interest in UTSA.

ARLEIGH B. TEMPLETON
President
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UNIVERSITY CALENDAR
Summer Session 1973

First Session
June 4  Monday. Registration.
June 5  Tuesday. Classes begin.
June 6  Wednesday. Last day to drop a course without a grade. Last day to add a course. Last day for registration.
June 8  Friday. Last day for students to withdraw and to receive a partial refund.
June 28  Thursday. Last day to drop a course.
July 4  Wednesday. Holiday.
July 12–13  Thursday–Friday. Final examinations for classes in first summer session.
July 13  Friday. End of first summer session.

Second Session
July 16  Monday. Registration.
July 17  Tuesday. Classes begin.
July 18  Wednesday. Last day to drop a course without a grade. Last day to add a course. Last day for registration.
July 20  Friday. Last day for students to withdraw and to receive a partial refund.
August 9  Thursday. Last day to drop a course.
August 23–24  Thursday–Friday. Final examinations for classes in second summer session.
August 24  Friday. End of second summer session.
UNIVERSITY CALENDAR
Fall Semester 1973

September 4-5  Tuesday–Wednesday. Registration.
September 6  Thursday. Classes begin.
September 11  Tuesday. Last day to drop a course without a grade. Last day to add a course. Last day of registration.
September 19  Wednesday. Last day for students to withdraw and to receive a partial refund.
November 22-23  Thursday–Friday. Thanksgiving Holidays.
November 29  Thursday. Last day to drop a course.
December 20-21  Thursday–Friday. Final examinations.
December 21  Friday. Semester closes.

Spring Semester 1974

January 16  Wednesday. Classes begin.
January 21  Monday. Last day to drop a course without a grade. Last day to add a course. Last day for registration.
January 29  Tuesday. Last day for students to withdraw and to receive a partial refund.
April 11-12  Thursday–Friday. Easter Holidays.
April 19  Thursday. Last day to drop a course.
May 2-3  Thursday–Friday. Final examinations.
May 3  Friday. Semester closes.
UNIVERSITY CALENDAR
Summer Session 1974

First Session
June 3  Monday. Registration.
June 4  Tuesday. Classes begin.
June 5  Wednesday. Last day to drop a course without a grade.
        Last day to add a course. Last day of registration.
June 7  Friday. Last day for students to withdraw and to receive a
        partial refund.
June 28  Friday. Last day to drop a course.
July 4  Thursday Holiday.
July 11-12  Thursday–Friday. Final examinations for classes in first
            summer session.
July 12  Friday. End of first summer session.

Second Session
July 15  Monday. Registration.
July 16  Tuesday. Classes begin.
July 17  Wednesday. Last day to drop a course without a grade.
        Last day to add a course. Last day for registration.
July 19  Friday. Last day for students to withdraw and to receive a
        partial refund.
August 1  Friday. Last day to drop a course.
August 29-30  Thursday–Friday. Final examinations for classes in second
              summer session.
August 30  Friday. End of second summer session.

1974
General Information
I. GENERAL INFORMATION

History

On June 5, 1969, legislation was signed into law creating The University of Texas at San Antonio as a semi-autonomous component institution of The University of Texas System. The creation of UTSA (along with two other components: The University of Texas at Dallas and The University of Texas of the Permian Basin) marked the first time in over forty years that the State of Texas has established a completely new public institution of higher learning serving both undergraduate and graduate students almost from its inception. The enabling legislation explicitly directed that UTSA offer “courses leading to such customary degrees as are offered at leading American universities . . . bachelor’s, master’s, and doctor’s degrees and their equivalent,” and furthermore that this University be “one of the first class.”

The transition from abstraction to reality actually began in May, 1970, when the Board of Regents of The University of Texas System accepted the gift of a permanent site for the UTSA campus: approximately 600 acres of rolling, wooded land located sixteen miles northwest of the city center of San Antonio. The Regents then appointed the first President of The University of Texas at San Antonio, Dr. Arleigh B. Templeton, who shortly thereafter established the University’s first administrative and planning offices in the former Maison Blanche building on the grounds of HemisFair Plaza.

By the end of 1970, a master conceptual plan for the permanent campus had been completed and given the Regents’ approval. By June, 1971, this concept had been translated into final plans and specifications for the first seven permanent buildings of the campus. Upon completion of site development work, construction contracts were awarded in May, 1972, with a schedule calling for completion in May, 1974.

In January, 1972, new, temporary administrative quarters were acquired in northwest San Antonio, where they will remain until completion of the permanent campus. Preliminary programming and structuring of the University, by its staff and a slate of distinguished consultants, culminated in the spring of 1972 with approval by the Regents and the Coordinating Board of the University’s proposed degree programs and academic organization.
Although the first construction phase of the permanent campus is not scheduled for completion until 1974, the University will open to graduate students in the summer of 1973. To accommodate the opening enrollment in selected programs, a building is being constructed adjacent to the present administrative offices in the Koger Executive Center near the intersection of Loop 410 and Babcock Road; it will be ready for occupancy in May, 1973. The programs to be implemented in this facility are the central concern of this Catalog.

Purpose and Philosophy

The University of Texas at San Antonio must—as must any great institution of higher learning—endeavor to be multi-purpose in its design in order to serve multiple constituencies. Of first concern are its students, as a collection of individuals rather than a student “body.” Each student’s potential for development—professional, creative, intellectual, and even social—must be nourished not only with expertise but equally with sympathy and with respect for individuality. It is in this sense that UTSA will be a “student-oriented” institution.

To achieve this purpose, the University is committed to flexibility in administrative and programmatic organization. Its faculty will be selected, above all else, on the basis of excellence in teaching, which is to be an institutional hallmark. Embodied in this philosophy is the concept of teaching; not as the mechanical instillation of knowledge, but as assistance to learn. The University recognizes that change is a characteristic of society in general and therefore of the needs of students as part of that society. It pledges itself to innovation, not for its own sake, but to achieve through experimentation with instructional methods, organization, and objectives, a greater degree of success in guiding students in their development.

The concept of flexibility is also manifested in a multidisciplinary approach to instruction. By avoiding excessive departmentalization, the University hopes to promote with greater ease the multidisciplinary atmosphere representative of a well-integrated and intellectually alive academic community. In answer to youth’s concern about the “relevancy” of present-day higher education, UTSA will strive to eliminate the isolation of academic disciplines one from another; to prevent the entrenchment of divisional self-
interests; and conversely to promote greater intellectual reciprocity among all components of the University. The fulfillment of such an objective promises a corollary advantage: the more efficient and effective utilization of all the University's resources.

As students represent one constituency of a university, the faculty to no lesser degree, represents another. UTSA promises its faculty intellectual freedom in return for intellectual responsibility and enthusiasm. The University asserts that a "community of scholars" does indeed refer to students and faculty together; that faculty should find in the university environment stimulation towards self-development; that the formal academic process is alive only when it enables the faculty to learn from, as well as impart knowledge to, their students. In this spirit, the University will regard research activities primarily as a vehicle for faculty-student interaction and cooperation in pursuit of shared achievement.

Universities are frequently identified with their constituencies in the geographical sense. UTSA as an institution will be concerned with its "image," not in a superficial way but in terms of the underlying flavor of its academic community and its larger public obligations. While striving to merit and to achieve ultimate recognition as a significant university from the national perspective, it will also strive in various ways to reflect and to serve the special characteristics of the Southwest, the State of Texas, and South and Southwest Texas as distinctive regions. This can be accomplished through special resources in the fine arts and crafts, music, literature, social sciences, languages, and various international or intercultural studies relating especially to Mexico and other Latin American nations. UTSA will, in every way possible, endeavor to be broadened, not restricted, by regional identification.

Finally, a university must enjoy a unique relationship with the community in which it is immediately located. The urban university, more than any other, has broad obligations to serve and rich opportunities to be served by the local community. The success of UTSA will, in no small measure, be determined by the pervasiveness of university-community cooperation. Mutual accessibility of library resources; the provision of internships with local professions and businesses; a dynamic program of institutes, seminars, and special courses; exchange in the arts and other cultural activities; and the utilization of local, non-university persons of special talents and abilities to enrich classroom instruction—all
these are indicators of an urban university’s role as a major cultural and community center.

**Organization**

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

The Board of Regents delegates normal 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.

Administration of the instructional operations of the University is the responsibility of the Vice President for Academic Affairs and Dean of Faculties, and under his leadership the Deans of the five Colleges of the University. Instructional programs are organized within the following format:

**College of Business**
- Division of Accounting and Business Data Systems
- Division of Economics and Finance
- Division of Management

**College of Fine and Applied Arts**
- Division of Art and Design
- Division of Music

**College of Humanities and Social Sciences**
- Division of English Language, Literatures, Linguistics
- Division of Foreign Languages, Literatures, Linguistics
- Division of Social Sciences

**College of Multidisciplinary Studies**
- Division of Advanced Studies in Education
- Division of Bicultural-Bilingual Studies
- Division of Certificate Programs in Education
- Division of Continuing Education
- Division of Environmental Studies
The University of Texas at San Antonio does not have a Graduate Dean or a Graduate School as a distinct administrative unit; direction of graduate studies is the responsibility of the Vice President for Academic Affairs and the individual Deans of the Colleges in which graduate degree programs are offered.

**Calendar**

The University operates on the semester system in accordance with the standard calendar of state-supported institutions of higher education in Texas. An academic year consists of two semesters with beginning and ending dates as specified in the University Calendar. Two summer sessions are also conducted, with credit awarded in semester hours.

**Accreditation**

The University of Texas at San Antonio has been designated a Correspondent of the Southern Association of Colleges and Schools, a classification which, for new institutions, reflects intent to work at all possible speed towards full accreditation and is based on evidence of sound planning and the resources to implement such plans.

**II. ADMISSION REQUIREMENTS**

**GRADUATE**

**General**

An applicant for admission to a graduate program must: (1) hold a Bachelor's degree from an accredited college or university in the

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1 Some graduate degree programs specify additional admission requirements. Refer to the specific degree descriptions for any admission requirements in addition to the University-wide requirements listed here.
United States or proof of equivalent training at a foreign institution, (2) satisfy the grade point requirements specified below, (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) submit scores from the Graduate Record Examination (Aptitude Test)—applicants for the MBA program are required to submit scores from the Admission Test for Graduate Study in Business in lieu of the GRE, and (5) have demonstrable writing proficiency.

An applicant with a "B" (3.0) average on all work of upper-division (junior and senior) and graduate level previously taken will be considered to have satisfied the minimum grade point requirements for admission to a graduate program. Some applications showing less than a "B" average may be accepted upon special recommendation of the academic Deans. In such cases, standardized or University examinations may be required and admission may be with conditions.

Students who desire to work towards graduate degrees in any area in which their undergraduate training is insufficient to permit full admission may be admitted with the understanding that they must undertake course work and other study to make up the deficiencies noted by the Graduate Advisor, and that such make-up work may be in addition to the regular degree requirements. When a student with less than the minimum grade point average is admitted on a conditional basis, special conditions may be assigned regarding the number of semester hours to be taken and a specific grade point average to be maintained. If these conditions are not met, the student may be barred from continuation in the graduate program.

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2 For degree programs which are multidisciplinary in nature, an individual review of the applicant's background will be made in order to ensure adequate preparation for graduate study.

3 Information on the GRE and applications for the tests, may be obtained from Educational Testing Service, Box 1502, Berkeley, California 94701. For the ATGSB, the address is Educational Testing Service, Princeton, New Jersey 08540. The institution code for UTSA is 6919-5 for the GRE and R6919 for the ATGSB.
Enrollment in Graduate Courses Without Admission to a Graduate Program

Students who do not wish to enter a graduate program or who have been denied admission to it may apply for admission as a special student with the classification “post-baccalaureate.” Post-baccalaureate students are eligible to take any courses for which they have the prerequisites, including graduate level courses, provided they have the approval of the instructors. Credit earned as a post-baccalaureate student can be applied toward a Master’s degree when approved by the Graduate Advisor and Dean.

Students seeking admission as post-baccalaureate students are not required to meet the requirements for admission to a graduate degree program, but must hold a baccalaureate degree from an accredited college or university and be in good standing at the last institution attended. Such students who later wish to enter a graduate degree program must apply to the Admissions Office and meet all requirements for admission to a graduate program.

Re-Admission

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

All former students returning to UTSA who have attended other collegiate institutions since they were last enrolled at UTSA must submit an official transcript from each collegiate institution attended since they were last enrolled.

Eligibility for re-admission for any former student will depend on the academic status at the conclusion of the student’s last UTSA enrollment and any subsequent college work attempted.

International Students

The following admission requirements pertain to all applicants
for admission who are not citizens of the United States and are in the United States on a student visa or visa other than one entitling them to immigrant status.

All applicants for admission as international students must:

1. Meet the admission requirements for all graduate students.
2. Submit a letter guaranteeing the student's ability to pay all expenses while a student at the University. The letter may be sent from a parent or guardian, a bank or other reliable institution, or a United States citizen who will accept responsibility for the student's financial needs.
3. Submit proof of adequate hospitalization insurance.
4. Submit scores from the Test of English as a Foreign Language (TOEFL). (The UTSA code is 0919.) Subsequent English tests may be required upon arrival at the University which will be used to validate the TOEFL score and for placement purposes. Students may be denied permission to register for credit until the level of English language proficiency is satisfactory.
   TOEFL scores are not required for students from Australia, the British Isles, Canada and New Zealand, if their native language is English, or United States high school graduates or graduates from accredited United States colleges with Bachelor's or Master's degrees.
5. International students will not be admitted with post-baccalaureate status; such students must be seeking a graduate degree at UTSA.

The above admission criteria serve as guidelines for admission for international students according to various classifications. All applicants will have their credentials examined on an individual basis with admission being granted only to those who show promise of success in university study in the United States and particularly at The University of Texas at San Antonio.

Summer Transient Students

A student who intends to register for courses in the summer session only and who does not intend to work toward a degree at The University of Texas at San Antonio but will transfer the credit elsewhere should apply to the Registrar for admission as a summer transient student. A degree statement and a statement of standing
from the institution last attended will be required to support the application for admission.

Summer transient students may register for any courses in which they have the prerequisites and in which space is available. Students registered in this capacity cannot be permitted to enroll in subsequent semesters unless they have been admitted as regular students. To be admitted as a regular student, the summer transient student must apply for regular student status through the Admissions Office and meet the University's admission requirements.

Application Dates

Students applying for admission as graduate or post-baccalaureate students may apply for admission according to the schedule below. Application forms and instructions will be available from the Admissions Office beginning with the "earliest date to apply" indicated below. The completed application form and all required supporting documents must be on file with the Admissions Office no later than the "last date to apply" shown below.

<table>
<thead>
<tr>
<th>Term</th>
<th>Earliest Date to Apply</th>
<th>Last Date to Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer Session I</td>
<td>January 15</td>
<td>May 15</td>
</tr>
<tr>
<td>Summer Session II</td>
<td>January 15</td>
<td>June 30</td>
</tr>
<tr>
<td>Fall Semester</td>
<td>February 15</td>
<td>August 15</td>
</tr>
<tr>
<td>Spring Semester</td>
<td>August 1</td>
<td>December 31</td>
</tr>
</tbody>
</table>

Admission Procedure

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

A student who is accepted for admission to The University of Texas at San Antonio for a given semester or summer session and does not register, must re-apply for admission. A subsequent application for admission must be in accordance with current admission requirements. New transcripts, test scores, and all other supporting documents will be required since files for admitted students who do not register are not retained.
III. EXPENSES*

Tuition

Pursuant to House Bill 43, 62nd Legislature, tuition for all students registered at UTSA will be as follows:

Residents of Texas pay tuition at the rate of $4.00 per semester hour of credit; a minimum tuition of $50.00 per semester and a minimum of $25.00 per six weeks summer session.

Nonresidents (U.S. Citizens). Nonresidents who are citizens of the United States will be charged tuition at the rate of $40.00 per semester hour of credit for which they are enrolled.

Foreign Students will be charged tuition at the rate of $14.00 per semester hour of credit for which they are enrolled with a minimum of $200.00 per semester; a minimum of $100.00 per six weeks session.

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

Residence Regulations

A student entering The University of Texas at San Antonio for the first time, or a student re-entering The University after an absence of more than one semester, must file a completed residence questionnaire. The student's status as a resident or nonresident will be made in accordance with Chapter 54, Subtitle A, Title 3 of the Texas Education Code (a detailed description of the residence regulations is in the Appendix of this Catalog). If the applicant is in any doubt about his status, he should consult the Director of Admissions and Registrar. Students who are legally classified as nonresidents of Texas must be prepared to pay the required tuition at the time of registration.

* All tuition charges and fees are subject to change without notice. A student is not registered and is not entitled to University privileges until all tuition and fees have been paid. Auditors pay the same tuition and fees as those students enrolled on a credit basis.
Fees*

Student Activity Fee
Every student registered at The University of Texas at San Antonio is required to pay a student activity fee of $12.00 for each semester and $4.00 for each six weeks summer session.

Graduation Fee
A graduation fee of $5.00 is required of all candidates for graduation. A receipt showing payment of this fee must be presented to the Registrar at the time the application for the degree is filed. The graduation fee is not refundable.

Late Registration Fee
A late registration fee of $5.00 will be charged for the first day of late registration and an additional $2.50 per day thereafter. The late registration fee is not refundable.

Bad Checks
A charge of $5.00 will be assessed for each returned check to offset the cost of handling dishonored checks.

Replacement of Student Identification Card
A charge of $2.00 will be 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.

Transcripts
A charge of $1.00 per UTSA transcript will be made. This fee must be paid before a transcript is issued.

Penalty for Payment of Tuition Under Incorrect Residency Classification
The responsibility of registering under the proper residence classification is placed upon the student. It is his duty at or before registration, if there is any possible question of his right to legal resi-

*The fees cited in this section are not necessarily typical of the fees which will be assessed students when the University is on its permanent campus. The fees in this section take into consideration the limited facilities and activities due to the University's operating in a temporary location.
dence in Texas, to raise the question with the Registrar and resolve such questions prior to registration. There can be no change in residence classification except upon the expressed authorization of the Registrar.

Any student who wrongly pays the Texas, rather than the non-resident’s, tuition is subject to a penalty of $10.00 for each violation.

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.

Exemption from Tuition and Fees

The Statutes of the State of Texas prescribe certain cases in which students can be exempted from tuition and/or certain fees. The various types of exemptions are described below; however, in each case it is the student’s responsibility to initiate the action of applying for an exemption through the Registrar’s Office and providing satisfactory evidence that all conditions required for the exemption have been met. Until such time as the exemption is granted, a student will be required to pay all tuition and fees from his 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-servicemen. A legal resident of Texas is exempted from tuition and certain required fees when he meets all the following criteria:

1. He has resided in Texas for a period of not less than twelve (12) months prior to the date of registration.

2. He 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, he must have served on active military duty (other than for training) for more than 180 days.

3. He was a bona fide legal resident of the state at the time of entering service.

4. He was 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. He is not eligible for education benefits provided for veterans by the United States Government.

Benefits for children of Texas veterans. Exemption from payment of tuition and certain fees extends 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 and the Texas Air National Guard killed since January 1, 1946, while on active duty.

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

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 certain fees.

Exemption of high-school graduates of state orphanages of Texas. Citizens of Texas who are high-school graduates of the state orphanages of Texas are exempt from tuition and certain required fees.

Low income families. Under certain circumstances a student who is a resident of Texas, is under 25 years of age, who has resided in the state for not less than twelve (12) months prior to registration, who meets certain academic requirements and whose family income was not more than $4,800 (family income means the combined gross income of the applicant and his family, if he is single, or the combined gross income of his family, himself, and his spouse, if he is married) may be awarded an exemption from tuition and certain other fees. This exemption is not applicable if the tuition and fees are, or will be, paid by the United States Government or from funds other than those of the student, his family or his guardian.

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 his support from his parent or parents, is exempted from the payment of tuition and certain fees if he 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.

**Refund Policy**

A student who officially withdraws from the University during the first ten days that classes are held in a semester (during the first four days of classes in a summer session) will automatically be refunded 50 percent of the tuition and refundable fees paid.

A student withdrawing after this date will receive no refund except when serious reason precludes a student's completing the action to withdraw during the refund period. In such cases, individual approval from the Registrar is required before a refund is authorized. Students withdrawing from the University are required to attach their student identification cards to the withdrawal form in order to be eligible for a refund. A student who registers for any term but withdraws from the University before the first day of classes will be refunded 75 percent of the tuition and refundable fees paid.

No refunds will be made to students who reduce their enrollments after registration or who do not officially withdraw from the University.

The above refunds pertain to tuition, student activity fees, and laboratory fees. The policy does not apply to fees not specifically mentioned.

No refunds will be made until 15 days have elapsed from the time fees were paid unless the fees were paid in cash or by money order. Refund checks will be mailed to the student's permanent address when the student has withdrawn from the University. Students entitled to a refund should allow ten working days after the fifteen-day clearing period for receipt of the refund.

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

**Student Financial Aid**

During the time the University is offering programs from its tem-
porary location, only limited financial aid will be available to qualified students. Students with definite need for financial assistance during this time should contact the Student Financial Aid Office.

IV. ACADEMIC REGULATIONS*

Registration
All students who attend classes must be officially registered at The University of Texas at San Antonio. Directions for the registration procedure are included in the schedule of classes for each term. Any questions regarding registration should be directed to the Registrar's Office.

The University does not guarantee the availability of particular courses or sections thereof, since admission to classes will be 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 for each semester permits students to register for classes during the first four class days of the semester (during the summer sessions, late registration is the first two days of classes). Students who register late will be charged an additional $5 the first day of late registration and an additional $2.50 per day thereafter; this fee is non-refundable. Instructions for late registration are available at the Registrar's Office. Students will not be 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 enrolled during the

*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 may incur.

* The policies, regulations and procedures stated in this catalog are subject to change without prior notice, if necessary, so that University policies are consistent with the policies of the Board of Regents of The University of Texas System.
time the course was in session prior to the students' being registered. Late registrants may be required to enroll in a reduced schedule.

**Verification of Enrollment**

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

**Cancellation of Enrollment**

Any student who fails to fulfill admission or matriculation requirements or who otherwise fails to adhere to academic or University regulations is subject to immediate administrative action which may result in his being placed on probation or having his enrollment for that term cancelled. Re-application for admission, or application for re-admission, to a subsequent term may be considered, provided the deficiency which resulted in the cancellation has been removed.

**Auditing**

Students who wish to audit a course may do so with the approval of the instructor and Dean of the College in which the course is offered. Such students should enroll in the course on a grade basis and then submit an approved Request to Audit form to the Registrar's Office no later than the add/drop period.

Auditors have only the privilege of listening. Such students may not take examinations or otherwise actively participate in classes. A student enrolled as an auditor pays the same fees as a student registered for credit. Only those individuals who have been admitted to the University may audit courses. An auditor will have no official record made of his enrollment in classes on an audit basis.

No changes to or from an audit enrollment may be made after the end of the add/drop period.

**Adding and Dropping Courses**

From the first through the fourth calendar days of a regular se-
mester (the first two calendar days of a summer session) a student may add or drop courses at the Registrar's Office. The student is responsible for filing the change with the Registrar's Office so that the action will become official. Courses dropped during this period will not appear on the student's permanent record. A grade of "F," however, will be entered on the student's permanent record if he registers for a course and discontinues attendance without filing official notification with the Registrar.

Adding courses is not permitted after the fourth calendar day of a regular semester (after the second calendar day in a summer session).

If a student finds it necessary to drop a course after the fourth calendar day of a regular semester (after the second calendar day in a summer session) it is his responsibility to initiate and complete procedures for obtaining an approved withdrawal from the course. The forms for this purpose are available at the Registrar's Office and require the approval of the instructor. In order for the action to be official, the student must file the approved form with the Registrar's Office. A student who officially drops a course after the fourth calendar day in a regular semester (after the second calendar day in a summer session) will be assigned a grade "W" if he is passing in the course at the time of withdrawal or a grade of "F" if he is failing the course at the time of withdrawal. A student who drops a course without filing the required form with the Registrar's Office will be assigned a grade of "F" in the course. Students may not withdraw from a course later than three weeks prior to the beginning of final examinations for the semester and not later than two weeks prior to the beginning of final examinations for the summer sessions.

Withdrawal from the University

A student who finds it necessary to withdraw from the University (i.e., drop all courses for which he is enrolled) may obtain the forms for this purpose from the Registrar's Office. After completing the required forms, the student must file the necessary material with the Registrar's Office in order to officially withdraw. Students who officially withdraw from college after the fourth calendar day of a regular semester (after the second calendar day of a summer session) will receive a grade of "W" for each class they are passing at that time, and a grade of "F" for each class in which they are
not passing at the time of withdrawal. Students who withdraw from all classes are subject to the academic dismissal regulations at the close of the term. (Students withdrawing should refer to the regulations on refunds of tuition and fees.)

**Change of Major or Degree**

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

**Change of Name or Address**

Currently enrolled students who have changed their names or addresses should notify the Registrar's Office by completing the appropriate form. Official notification is necessary for proper identification of students' records and for accurate mailing of correspondence, grade reports, transcripts and information pertaining to graduation requirements. The University will not be responsible for mailing correspondence to the incorrect name or address unless changes are formally filed at the Registrar's Office.

**Class Attendance Policy**

Regular attendance at all meetings of the courses for which a student is registered is expected. The implementation of this policy is the responsibility of the instructor. If occasions arise when a student has to be absent from a class, it is the student's responsibility to clear absences with each instructor, since it is the instructor's responsibility to set and to communicate to students the attendance requirements of each course.

Whenever a student is absent he must, as soon as possible, make up any work missed. The responsibility for making up class work missed as a consequence of an absence rests entirely with the student.

When, in the judgment of the instructor, a student has been absent to such a degree as to impair his status relative to receiving credit for the course, the instructor may report the absences to the Dean of the College in which the course is offered and recommend that the student be dropped from the course with a grade of "F". If the Dean approves the recommendation, he will advise the Registrar, instructor and student of the action taken.
Students absent from a test are normally graded zero on that test, unless for urgent reason the instructor grants them the privilege of taking a postponed test at a time set by the instructor.

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

A student who ceases to attend a class before he officially drops the course will be considered absent from the class and will be subject to the penalties for persistent absences.

**Prerequisites**

Prerequisites are stated for many courses listed in the course descriptions of 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 may, under exceptional conditions, obtain permission of his advisor and the instructor of the course to register. In any event, it is the student's responsibility to be sure that he has met all prerequisites before enrolling in any course. Should a student enroll in a course without the stated prerequisites, he may be required to withdraw from the course. Exceptions will not be made to academic regulations for students who register in courses without having met the stated prerequisites.

**Grade Reports**

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

**Applying for Graduation**

All degree candidates must officially apply for the degree at the Registrar's Office no later than the end of the add/drop period of the term in which they intend to graduate.

If a student does not graduate at the close of the term for which he has applied, he will automatically be transferred as a prospec-
tive graduate for the subsequent term. If the student does not graduate the following semester, or ceases to be enrolled in a subsequent semester, he must again file for the degree.

**Course Numbering System**

All courses offered by The University of Texas at San Antonio are identified by a three-digit number. The first digit indicates the course level; courses designed for graduate students are numbered 500 through 699. The second digit indicates the semester hours of credit for the courses. When the second digit is 1, 2, 3, 4 or 5, the credit for the course is the corresponding number; when the second digit is 6, 7, 8 or 9, three semester hours of credit will be awarded. When the second digit is 0, the course has variable credit.

Sequenced courses within a discipline and at the same level use the letter "A" to indicate the first half of the course and the letter "B" to indicate the second half of the course. When the sequencing extends beyond two terms, letters are used to indicate the order of the courses, i.e., "A," "B," "C," "D," and "E." The course description for each course indicates the letters used, if any.

If the order in which sequenced courses must be taken is "A" and then "B" (etc.) then no statement is made. If the order is not important, a statement to this effect is made in the course description. A student may be granted credit for each course in a series without completing the entire sequence.

Following the course title, a pair of numbers separated by a hyphen is listed to indicate the course hours per week required; the first number is the number of hours of lecture, the second is the number of hours of laboratory.

**Student Classification System**

*Post-Baccalaureate:* A student who has at least a baccalaureate degree, but who is not enrolled in a graduate degree program.

*Graduate:* A student who is enrolled for courses to be applied towards a Master's degree and who has been admitted to the graduate degree program.

*Full-time* graduate (and post-baccalaureate) students are those enrolled in eight or more semester hours of courses during a regular semester; four or more hours during a summer session.
Part-time graduate (and post-baccalaureate) students are those enrolled in less than eight hours of credit during a regular semester or less than four hours during a summer session.

Note: Upon request, the Registrar will certify students as "full-time" during the term in which they intend to graduate if they are enrolled in the number of hours required to complete the degree, irrespective of the number of hours involved.

Grading System

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Explanation</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Outstanding</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>Above Average</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Average</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>Below Average, but passing</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>Failure</td>
<td>0</td>
</tr>
<tr>
<td>IN</td>
<td>Incomplete</td>
<td>0</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal</td>
<td>0</td>
</tr>
<tr>
<td>NR</td>
<td>No Report</td>
<td>0</td>
</tr>
</tbody>
</table>

Grade Point Average

The Grade Point Average (G.P.A.) is determined by dividing the number of grade points earned by the number of semester hours of credit attempted.

Hours Earned

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

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.”

Grades of “Incomplete”

The grade "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 will not be assigned when a definite grade can be given for the work done. The "Incomplete" grade will be 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 before the completion of the student's next resident enrollment or the student's graduation, whichever is earlier, provided that not more than one year elapses from the time that the “Incomplete” grade is received until the work is completed. If the work is not completed within this time, the “Incomplete” will remain 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 courses of an individual study nature, such as research, thesis, or dissertation, except that an “Incomplete” cannot be removed after a degree is awarded. The time limit does apply to all other graduate courses in which class work is ordinarily completed in the process of the regular term. The time limit for removing an “Incomplete” grade in Special Problems 610, 620, or 630 is one year from the date of enrollment in the course, or the time of the student's graduation, whichever is the earlier.

Whenever a grade of “Incomplete” is assigned, the instructor is required to file a “Requirements for Removal of Incomplete” report with the Dean of the College in which the course is offered.

“No Report”
The grade “No Report” (“NR”) may be assigned a student only by the Registrar and only in cases in which a grade has not been reported by an instructor. This symbol is assigned when it is not possible to obtain the student's proper grade by the deadline necessary for processing grades at the close of the term and will be replaced with the official grade as soon as possible.

Change of Grades
Grade changes from “Incomplete” (“IN”) to a letter grade must be made within the time limit provisions explained under “Grades of Incomplete” 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 the form with the Registrar's Office.

Any other change of grade must be initiated by the instructor on
the required form available in the offices of the College Deans. Such petitions require the approval of the Council of Deans before the Registrar will make the change on the student's record. It is the policy of the Council of Deans to approve grade changes only in the most extraordinary circumstances and where justification of the reason can be substantiated. The Council of Deans will not consider approval of a grade change after six months from the date the original grade was assigned.

**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 units and grade points earned being counted. Neither post-baccalaureate nor graduate students may repeat courses for the purpose of raising a grade.

**Academic Dismissal**

Continuation in a graduate program is dependent upon: (1) satisfactory progress in absolving any admission conditions that were imposed and (2) maintaining a 3.0 ("B") grade point average for all upper-division and graduate courses taken in a given term. Should a graduate student make less than the 3.0 grade point average in any term or receive a grade of "D" or "F," his continuation is at the discretion of the Dean. A graduate student who, after being admitted to the graduate program, receives a total of three grades of "C" or lower will automatically be dropped from the graduate program. A graduate or post-baccalaureate student enrolled in more than three semester hours of credit and whose grade point average for any term is less than 2.0 ("C") will automatically be dismissed from the University.

Graduate students who are dismissed from a graduate program may petition the Council of Deans for re-admission. In such cases, recommendations from the student's Graduate Advisor and academic Dean will be required.

**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 bear the signature of the student whose record is requested. A fee of $1.00 will be charged for each copy of the transcript. Transcripts from other in-
stitutions submitted to UTSA will become property of the University and will not be reproduced and/or mailed to other institutions. Upon request, work in progress (i.e., a listing of classes in which the student is currently enrolled) will be included with the transcript without additional charge.

Students who have a financial obligation to the University will have transcript service withheld until the obligation is paid in full.

**Debts Owed the University**

In the event of non-payment of debts owed to the University, 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 record it is the student's responsibility to clear his obligations with the University and see that the Registrar's Office is notified before any additional services will be provided.

A student who pays tuition and fees with a check which is not subsequently honored by a bank, and the fault not being that of the bank, and who does not make payment within five days will have his registration for the term cancelled.

**Student Responsibility**

Each student is responsible for knowing the current regulations of the University. Current regulations are applicable to all students regardless of the date of admission. Interpretations or explanations contrary to the regulations in this catalog are not binding upon the University.

**Release of Information**

Transcripts or other copies of students' academic records will be released by the Registrar only upon written request from the student, and when payment of the appropriate fee is made. The following exceptions may be made:

1. In the case of an unmarried minor student, upon the written request of the student's parent or legal guardian, and upon receipt of payment of the appropriate fee.
2. In response to a court order.
3. To another institution of higher education or an accredita-
tion agency, upon request.
4. To University faculty and administrative officials, upon 
request, when the information is for University-related 
purposes and/or activities.

Directory-type information may be released upon request by any 
party. Such information may include the student’s full name, date 
of birth, the College in which the student is enrolled and his major 
field of study, dates of attendance, degrees granted, and honors 
received. Upon request from a properly identified official of a 
federal, state or local agency, a student’s permanent and local ad-
dress, telephone number, marital status, name and address of 
spouse, parent or guardian, general class rank or grade average 
(not specific grades) as well as the information available for all 
inquiries, may be released.

Any information about a student contained in a publicly dis-
tributed directory may be released without the student’s specific 
consent.

In any event, information about a student may be released to 
avoid harm to him or to avoid harm to the public good, and for 
legitimate historical and educational research.

In the event of non-payment of debts owed the University, the 
University may withhold transcripts and/or refuse to release in-
formation about the student. Other actions which may be taken are 
described under “Debts Owed the University.”

V. GENERAL REGULATIONS, MASTER’S DEGREES

Every Master’s degree program is based on the assumption that 
the students participating in it already possess a general college 
education to the baccalaureate degree level. Accordingly, entering 
students, as described under “Admission Requirements,” are re-
quired to hold a baccalaureate degree from an accredited college 
or university in the United States or proof of equivalent training at 
a foreign institution. Entering students are required to have a 
minimum of 18 semester hours in the area in which the graduate 
degree is sought, at least 12 of these hours are to be of upper-
division level, and to submit results from certain standardized examinations. In addition, the writing proficiency and grade point requirements specified as admission requirements to graduate programs must be met. Students without adequate preparation may be admitted on a conditional basis with the understanding that they must undertake course work and other study in order to demonstrate their abilities to perform at the graduate level, and that such work may be in addition to the regular degree requirements.

**Entering Examinations**

The Dean of the College in which students' major areas fall may appoint a committee to examine students on their undergraduate preparation before applications to enter the program are approved.

Students admitted to graduate programs are expected to demonstrate proficiency in written and spoken English; admission to some areas of graduate study requires a student to pass an examination in English and/or a foreign language. Students lacking the required level of English proficiency will be denied candidacy.

**Transfer of Credit**

Ordinarily all work for the Master's degree must be done at The University of Texas at San Antonio. However, a maximum of six semester hours of graduate course work may be transferred from another accredited institution upon the approval of the Dean of the College in which the major area is located. All work submitted for transfer credit 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 UTSA, however, must be approved by the student's advisor and Dean.

**Correspondence Courses**

Courses completed by correspondence are not accepted for graduate credit and may not be applied to a graduate degree program.
Extension Courses
Work completed in extension classes may be allowed for graduate credit; however, no more than six semester hours of extension credit may be applied to the degree. It is required that the following conditions be met for extension credit to be allowed.

1. The applicant, before taking the course, has been accepted for admission to the graduate program,
2. The course has the prior approval of the student's Graduate Advisor and the Dean, and
3. The extension course is identified as a course designed primarily for graduate students.

Courses Counted for Another Degree
No courses counted toward another degree may be applied to a graduate degree, either directly or by substitution. 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 and Dean.

Time Limits and Catalog of Graduation
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 credits may be accepted upon approval of the candidate's Graduate Advisor and Dean; in all cases, a comprehensive examination will be required as a condition for validating credit.

General and specific requirements for graduate degrees may be altered in successive catalogs, but the student is bound only by the requirements of the catalog in force at the time of his admission to the graduate program, and within the six year limit. At the student's discretion, the requirements as stated in a subsequent catalog may be elected.

Graduation Dates
Degrees are conferred only at the end of each semester and at the end of each summer session, but formal public ceremonies are held only at the conclusion of the spring semester. Students who wish to participate in the commencement ceremonies at the close of the spring and who have graduated during the previous summer or fall terms may do so. Information on the procedures to be followed is available in the Registrar's Office.
Final Examination
A candidate for a Master's degree must, in addition to all other requirements, pass a final 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. Final examinations will be given only to those students who have been admitted to candidacy for the degree.

Candidacy Requirements
Only those students who show promise of capacity to do work of the high standard set for graduate credit will be admitted as candidates for the Master's degree. A student desiring to become a candidate must make application for candidacy in the Dean's Office prior to the deadline of the semester in which he desires to receive his degree. The Dean, or a committee appointed by the Dean, has the right to examine the student on his preparation in his area and related subjects, and may require him to make up any deficiencies before his application is approved. This examination may be either oral or written at the discretion of the examiners. The applicant will be recognized as a candidate only when he has satisfied the scholarship requirements and when his application and course of study have been approved by the Graduate Advisor and Dean.

Application for Candidacy
All candidates for the Master's degree must file an Application for Candidacy, signed by the student's Graduate Advisor, with the Dean no later than the first 30 calendar days of the final semester or first 10 calendar days of the final summer session. The Application for Candidacy 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. Advancement to candidacy is a degree requirement.

Options for Master's Degrees
Two options are available for each Master's Degree Program.

Option I. The candidate for a Master of Arts or Master of Science degree is required to complete 30 semester hours of credit (36 semester hours for the Master of Business Administration degree) approved by the Graduate Advisor and Dean, including six semester hours of credit for a thesis. The thesis is subject to approval by the student's Graduate Advisor, Thesis Committee 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 semesters) 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 Program under Option II, a student can meet the requirements for a Master's degree without writing a thesis but instead is required to complete a program of 36 semester hours of course work approved by the student's Graduate Advisor and Dean.

At the beginning of the student's master's program he should select the option most suitable to his needs in consultation with his Graduate Advisor. The degree plan approved by the Graduate Advisor and Dean will be used at the time the student applies for candidacy as the basis for evaluation.

Should a student elect to change options after being admitted to candidacy, he will need to apply for candidacy under the new option and provide a full explanation for the change in degree plan.

Additional Regulations

With the approval of the student's Graduate Advisor and Dean, a candidate for a Master's degree may apply a maximum of six semester hours of credit for upper-division (junior or senior) courses to a Master's degree; no courses below upper-division level may be applied to the degree.

No courses in which grades of "D" were earned may be applied to a graduate degree. A maximum of two courses in which the grade "C" was earned may be applied to a Master's degree.

A candidate for a Master's degree must have a 3.0 ("B") grade point average in all credit which is part of the degree program.

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 Advisor, who is also Chairman of the Thesis Committee. The Thesis Committee consists of the advisor and two additional members of the
Graduate Faculty appointed by the Dean. The student is expected to work closely with his Thesis Advisor in selecting his thesis topic and in completing other details of his study.

2. Submit a preliminary draft for approval by the Thesis Advisor 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 academic Dean.

3. Upon concurrence of the Thesis Committee the draft may be approved. This step is intended to signify that the thesis meets the required standards for content, expression, format, spelling and general 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 Dean's Office 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 copy and will be submitted to the Thesis Advisor and Thesis Committee members for the final endorsement. Final approval is the prerogative of the Dean. If the thesis is found to be acceptable, the thesis will be returned to the candidate at which time it is to be reproduced in order that the two required copies may be filed.

6. File two bound copies of thesis. Degree candidates must file two copies of the thesis with their Dean's Office for binding. One copy must be the original; the second copy a reproduced copy. One copy will be retained by the Dean's Office and one by the Library. Students may submit any number of additional copies for binding at additional cost for their personal use, if they so desire. Copyright, at the author's expense, may be arranged in the Dean's Office.

7. The completed, approved thesis must be submitted to the Dean's Office at least ten days prior to the last day of classes of the term in which the degree is to be awarded.
VI. GRADUATE DEGREE PROGRAMS
Academic Year 1973–74

The following graduate degree programs will be available during 1973–1974. The detailed requirements for each degree will be found on the following pages.

Master of Business Administration Degree
Business

Master of Arts Degree
Advanced Studies in Education
Concentrations: 1) Cultural Foundations of Education
2) Curriculum and Instruction
3) Early Childhood and Elementary Education
4) Educational Management
5) Institutions of Higher Education

Bicultural-Bilingual Studies
Concentrations: 1) Bicultural Studies
2) Bilingual Teacher Education

English
Concentration: 1) English as a Second Language

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

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

*These degree programs are scheduled beginning with the 1973 Summer Sessions; however, due to resource limitations and demand it may be necessary to implement the various programs on a staggered basis during the academic year or to postpone some programs and support courses until the University is on its permanent campus.
Master of Science Degree

Bicultural-Bilingual Studies
- Concentration: 1) Bilingual Medical Interpreting

Environmental Management
- Concentration: 1) Management of Physical Resources

Mathematics and Systems Design

The following additional graduate degree programs for academic year 1974-75 will be offered when the University is on its permanent site. These programs are subject to change without notice and will become available only if the University is operational on its campus.

<table>
<thead>
<tr>
<th>Programs</th>
<th>Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art</td>
<td>MFA</td>
</tr>
<tr>
<td>Bicultural-Bilingual Media Interpreting</td>
<td>MA, MS</td>
</tr>
<tr>
<td>Biology</td>
<td>MS</td>
</tr>
<tr>
<td>Chemistry</td>
<td>MS</td>
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<tr>
<td>English Language Literatures</td>
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<td>History</td>
<td>MA</td>
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<td>Interamerican Management</td>
<td>MBA</td>
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</table>
College of Business

The College of Business recognizes the traditional responsibility to prepare its students for careers throughout business and society through a program of excellence. Beyond this, it assumes the responsibility of offering a forward looking curriculum which considers least cost combinations, the problems associated with the factors of production, and delineates potential methods to determine viable solutions relevant to the business world of today and tomorrow.

The primary focus of the College of Business will be on providing quality instruction. The instruction of students in a program of excellence assumes that the theoretical backgrounds of students and faculty alike will be supplemented by research and other allied activities in the world of business.
MASTER OF BUSINESS ADMINISTRATION DEGREE

The Master of Business Administration degree is designed to provide intensive training 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 MBA program but will be required to complete a series of foundation courses as a condition of admission. The foundation courses are in addition to the degree requirements.

Special Admission Requirements. Applicants for admission to the MBA program will be required to meet the University-wide admission requirements, except that the minimum of 18 semester hours in business is waived because of the dual program. In addition, all applicants must take the Admission Test for Graduate Study in Business* (ATCSB) and submit results to the Director of Admissions well in advance of the desired date of admission. The score on the ATCSB will be considered in determining the applicant's eligibility for admission to the program.

Some or all of the following foundation courses may be required as conditions for students with a non-business background, or for other applicants whose previous training is insufficient to permit full admission to the program:

- ACCT 530. The Theory, Method and Use of Accounting.
- ACCT 531. Costs and Budgets.
- ECON 530. Theories of Economics Survey.
- MGMT 530. Foundations of Management.
- MGMT 533. Legal Environment for Business.
- MGMT 537. Foundations of Quantitative Methods for Business.
- MRKT 530. Foundations of Marketing.

Degree Requirements. All candidates for the MBA degree will, in addition to the General Regulations for Master's Degrees, be

* Applications for the ATCSB, or information on the test, may be obtained from Educational Testing Service, Princeton, New Jersey 08540.
required to successfully complete the following core of 21 semester hours.

ECON 561. Business Economics.
FIN 561. Financial Management.
MRKT 561. Marketing Management.

Students selecting Option I (a total of 36 semester hours including a thesis is required) will, in addition, be required to successfully complete 9 semester hours of credit in elective courses approved by the Graduate Advisor and Dean and 6 semester hours of credit in thesis, Business 691. Students selecting Option II (36 semester hours without a thesis are required) will be required to successfully complete 15 semester hours of credit in electives approved by the Graduate Advisor and Dean.

COURSE DESCRIPTIONS

ACCOUNTING
(ACCT)

530 THE THEORY, METHOD AND USE OF ACCOUNTING.
(3-0) 3 hours credit.
An introductory course for MBA candidates without previous work in accounting. Emphasis is on accounting as a tool to communicate financial information, for planning, for analyzing and controlling business enterprises. Methods and procedures are covered.

531 COSTS AND BUDGETS.
(3-0) 3 hours credit.
Theory and techniques of cost accounting for product costing, control, and decision-making. Consideration of prime costs, overhead, budgeting, and transfer pricing.

535 MANAGEMENT INFORMATION SYSTEMS.
(3-0) 3 hours credit.
A course in programming and computer systems for graduate students who have not had undergraduate training in this area.

561 ACCOUNTING ANALYSIS FOR DECISION-MAKING.
(3-0) 3 hours credit. Prerequisite: ACCT 530 or the equivalent.
The study of accounting and its uses by management in the decision-making process.

562 MANAGERIAL ACCOUNTING.
(3-0) 3 hours credit. Prerequisite: ACCT 561 or the equivalent.
A detailed analysis of financial statements and corporate accounts.
Accumulation of cost information and interpreting of the results as an aid to managerial decisions.

610, 620, 630 SPECIAL PROBLEMS.
1 to 3 hours credit.
May be repeated, but not more than 6 hours will apply to a Master's degree. All work required for credit must be submitted to the instructor two weeks prior to the final examination period and must be completed no later than one year from the date of enrollment in the course. Requires permission of the instructor.

635 CURRENT ACCOUNTING THEORY.
(3-0) 3 hours credit. Prerequisites: ACCT 562 and consent of instructor.
Current accounting literature; accounting bulletins of the American Institute of Certified Public Accountants, Securities Exchange Commission accounting releases and other relevant material.

COURSE DESCRIPTIONS

BUSINESS
(BUS)

691 MASTER'S THESIS.
(3-0) 3 hours credit.
May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Permission of the instructor is required. Enrollment in 691 is required each term the thesis is in progress.

COURSE DESCRIPTIONS

ECONOMICS
(ECON)

530 THEORIES OF ECONOMICS SURVEY.
(3-0) 3 hours credit.
An intensive one semester course in theories of economics for students entering the MBA program who have not had an adequate undergraduate foundation in economics. Micro as well as macro economic concepts are studied. Specific areas covered are: the
price system as it functions under competition, monopoly and partial monopoly; collective bargaining, international trade; national income, measurement and determination; business cycles; money and banking, monetary policy; fiscal policy and economic development.

561 BUSINESS ECONOMICS.
(3-0) 3 hours credit. Prerequisite: ECON 530 or the equivalent. The application of price theory to problems of the firm. Actual case studies will be utilized.

571 ECONOMICS OF HUMAN RESOURCES.
(3-0) 3 hours credit. Prerequisite: ECON 530 or the equivalent. An economic study of the education process, rates of return and investment in human resources such as health and on-the-job training. Educational planning, production and economic growth are analyzed.

575 URBAN ECONOMICS.
(3-0) 3 hours credit.
A study of the economic dimensions of cities. Specific areas covered are location theory, alternative uses of existing natural resources, the labor force, transportation, poverty, and other factors related to the economic development of urban areas.

581 INTERNATIONAL BUSINESS ECONOMICS.
(3-0) 3 hours credit. Prerequisite: ECON 530 or the equivalent. The use of economic concepts in the solution of international business problems. Actual cases will be utilized to allow the student an opportunity to apply the tools of economic theory.

591 SOCIAL CONTROL OF BUSINESS.
(3-0) 3 hours credit. Prerequisite: ECON 530 or the equivalent. An extensive study of current regulatory problems being faced by business firms. Extensive reading assignments on current developments and case studies will be utilized.

610, 620, 630 SPECIAL PROBLEMS.
1 to 3 hours credit.
May be repeated, but not more than 6 hours will apply to a Master's degree. All work required for credit must be submitted to the instructor two weeks prior to the final examination period and must be completed no later than one year from the date of enrollment in the course. Requires permission of the instructor.

632 MANPOWER POLICY.
(3-0) 3 hours credit.
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 utilization of human resources.

634 ECONOMICS OF POVERTY.
(3–0) 3 hours credit.
A study of the causes of poverty and of the ways society provides the means of livelihood for those who are unable to care for themselves, due to unemployment, age, illness, or other disabilities.

636 LABOR ORGANIZATIONS.
(3–0) 3 hours credit.
A study of the origins of organized labor movements and their evolution over time. Management problems facing organized labor as they relate to society such as collective bargaining, economic security, leisure and technological change are examined.

COURSE DESCRIPTIONS

FINANCE (FIN)

531 BUSINESS FINANCE.
(3–0) 3 hours credit.
A study of the financial dimensions of a business enterprise. Areas covered are business financial organizational structures; financing of business enterprises; capitalization; refunding and reorganization.

561 FINANCIAL MANAGEMENT.
(3–0) 3 hours credit. Prerequisite: FIN 531 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.

571 FINANCIAL INSTITUTIONS.
(3–0) 3 hours credit.
The “money market” and the development, organization, and operation of the supporting financial institutions.

581 CAPITAL FORMATION AND BUDGETING.
(3–0) 3 hours credit.
Analysis of the cost-of-capital concepts and capital budgeting as these are associated with the micro and macro approach to finance.

591 INVESTMENT PROBLEMS.
(3–0) 3 hours credit.
Measuring and evaluating risk possibilities as they relate to public and private debt, government regulation of securities markets and taxation.
610, 620, 630 SPECIAL PROBLEMS.
1 to 3 hours credit.
May be repeated, but not more than 6 hours will apply to a Master's degree. All work required for credit must be submitted to the instructor two weeks prior to the final examination period and must be completed no later than one year from the date of enrollment in the course. Requires permission of the instructor.

663 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.

COURSE DESCRIPTIONS

MANAGEMENT

(MGMT)

530 FOUNDATIONS OF MANAGEMENT.
(3-0) 3 hours credit.
Areas of management theory studied are: organizational structure, planning, staffing, controlling and external relationships of business enterprises.

533 LEGAL ENVIRONMENT FOR BUSINESS.
(3-0) 3 hours credit.
An intensive course for students entering the graduate program without a basic undergraduate course in business law. Areas covered are the law of contracts, negotiable instruments, sales, insurance, bankruptcy, agencies, partnerships and corporations.

537 FOUNDATIONS OF QUANTITATIVE METHODS FOR BUSINESS.
(3-0) 3 hours credit.
A course covering business and economic statistics for students who have not had undergraduate training in this area. Quantitative tools used in the management decision process are studied.

561 QUANTITATIVE METHODS IN BUSINESS.
(3-0) 3 hours credit. Prerequisite: MGMT 537 or the equivalent. The application of mathematical statistical techniques to the solution of business and economic problems. The course is intended to provide the quantitative methods foundations needed for students
in the MBA program in order to permit a better understanding of operations analysis, management as a science and research in the social sciences.

565 BUSINESS RESEARCH METHODS.
(3–0) 3 hours credit. Prerequisite: Graduate standing.
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.

571 MANAGEMENT STRATEGY AND TACTICS.
(3–0) 3 hours credit. Prerequisite: MGMT 530 or the equivalent.
An intensive course covering current literature relating to management theory and enterprise leadership.

610, 620, 630 SPECIAL PROBLEMS.
1 to 3 hours credit.
May be repeated but no more than 6 hours will apply to a Master's degree. All work required for credit must be submitted to the instructor two weeks prior to the final examination period and must be completed no later than one year from the date of enrollment in the course. Requires permission of the instructor.

671 MANAGEMENT POLICY, PROBLEMS, AND TRENDS.
(3–0) 3 hours credit. Prerequisite: Permission of the Graduate Advisor.
A case study course intended to provide a capstone coverage of material taken in the MBA program, as well as broadening the horizons of the student beyond the focus on the firm. The macroeconomic aspects of our economy and contemporary problems and trends of business are covered.

COURSE DESCRIPTIONS

MARKETING
(MRKT)

530 FOUNDATIONS OF MARKETING.
(3–0) 3 hours credit.
Marketing is studied as a function of business with intensive study in price determination, distribution of goods, promotion and organizational policies.

561 MARKETING MANAGEMENT.
(3–0) 3 hours credit. Prerequisite: MGMT 530 or the equivalent.
A study of current problems in the area of marketing management.
Marketing practices and thought are analyzed along with an intensive evaluation of the current literature.

571 MARKETING ADMINISTRATION METHODOLOGY. (3-0) 3 hours credit. Prerequisite: MRKT 561.
Problems in obtaining and analyzing internal and external marketing information using various instruments, design and techniques germane to marketing.

581 PROBLEMS IN MARKETING MANAGEMENT. (3-0) 3 hours credit. Prerequisite: MRKT 561.
Case problems in marketing. Designed to give the student an opportunity to utilize the material and analytical tools that have been acquired.

610, 620, 630 SPECIAL PROBLEMS.
1 to 3 hours credit.
May be repeated, but not more than 6 hours will apply to a Master's degree. All work required for credit must be submitted to the instructor two weeks prior to the final examination period and must be completed no later than one year from the date of enrollment in the course. Requires permission of the instructor.
The College of Fine and Applied Arts will provide the best possible professional education in the visual arts and music at undergraduate and graduate levels. The major fields of study will prepare students for careers in art, design, crafts, and music education. Conceptual and visual awareness as well as technical ability are at the core of the programs of study which will stress, ultimately, creative and intellectual development.

Pending completion of permanent facilities, courses in the College of Fine and Applied Arts will be limited to graduate courses in the history of art.
COURSE DESCRIPTIONS

ART

561 ART AND ARCHITECTURE OF MEXICO AND MEXICAN AMERICA.
(3-0) 3 hours credit.
A study of the missions, the Santos, and the works of twentieth century Mexican muralists and Mexican American artists. Cultural and artistic rather than present political boundaries are used as a basis for spatial definition of this study. The art of the American Southwest is treated as an integral part of New Spanish and Mexican art.

562 PRE-COLUMBIAN ART AND ARCHITECTURE OF Meso­AMERICA.
(3-0) 3 hours credit.
An art historical study of the architecture, sculpture, and painting of the Olmec, Izapan, Classic Maya, Zapotec, Classic Veracruz, Teotihuacán, Toltec-Maya, Mixtec, and Aztec peoples of Ancient Mexico and Guatemala. A course stressing a definition of styles, their durations, and extensions. Linguistic, geographic, and ethnic designations for these styles are retained for classificatory purposes only.

565 THE CATHEDRAL IN SPAIN AND SPANISH AMERICA.
(3-0) 3 hours credit.
A study of the major Spanish and Spanish American cathedrals, principally those of Santiago de Compostela, Burgos, Toledo, Córdoba, Sevilla, Cádiz, Granada, León (Spain), Mexico City, Puebla, Oaxaca, Mérida, Morelia, Zacatecas (New Spain), Antigua (Guatemala), Caracas, Bogotá, Quito (New Granada), Cajamarca, Lima, Cuzco (Peru), and La Paz (Upper Peru).

571 TWENTIETH CENTURY ART OF LATIN AMERICA.
(3-0) 3 hours credit.
A comparative study of twentieth century painting in Venezuela, Colombia, Peru, Chile, Argentina, and Mexico.

575 COLONIAL ART OF MEXICO, GUATEMALA, AND PERU.
(3-0) 3 hours credit.
A study of the art and architecture of New Spain, Guatemala, New Granada, Peru, and Upper Peru. A course stressing architectural spaces and volumes as well as painting and sculpture of the retablos, yescerias (gilded and polychromed stucco decorations), and retablo facades.
561 MAN'S CREATIVITY.
(3-0) 3 hours credit.
An examination of the biographies and works of highly creative people in the Fine Arts whose lives and works have helped man better appreciate individuality, beauty in his environment, and have significantly contributed to the advancement of society.

571 THE HISPANIC FINE ARTS.
(3-0) 3 hours credit.
An examination of the development of music, art, and drama in Hispanic Cultures with special emphasis on Iberia and the confluence of the Fine Arts in Spanish America.

575 SEMINAR IN FINE ARTS IN COLONIAL SPANISH AMERICA.
(3-0) 3 hours credit.
A study of architecture, painting, sculpture, music, and drama encompassing the confluence of pre-Columbian cultures and the Spanish manifestations in Spanish America during the Colonial period.
College of Humanities and Social Sciences

Programs in the College of Humanities and Social Sciences aim at developing an appreciation of the multidisciplinary nature of knowledge and the abilities and willingness to use skills, methods, information, and theories developed by disciplines outside one's own field. The College will provide much of what is fundamental to a well-rounded, liberal education as well as its own degree specializations.

Undergraduate offerings are designed to develop general abilities in analytical thinking, and furnish the attitudes and information necessary to put these abilities into action. A simultaneous goal is to spark and develop broad interests in the student which will make him a self-generating person. Graduate offerings will particularly emphasize the multidisciplinary cultural approach with intense, specialized career preparation—at the same time providing tailor-made degree plans commensurate with individual goals and objectives.
MASTER OF ARTS DEGREE IN ENGLISH

Concentration in English as a Second Language

The Master of Arts Degree in English with a concentration in English as a Second Language is designed to train teachers in the elementary and secondary schools, social workers, and others to deal effectively with the problems of teaching English to persons whose primary language is other than English. During 1973-74 this program will concentrate on English as a second language for individuals whose primary language is Spanish. The program will be expanded to include other foreign language groups as the need arises and the resources become available.

Special Admission Requirements. In addition to the University-wide admission requirements, students entering this program must demonstrate proficiency in both the Spanish and English languages by satisfactorily passing an examination in these languages. It is required that applicants for this program have the equivalent of an undergraduate minor in Spanish and the equivalent of an undergraduate minor in English.

Degree Requirements. All candidates for the Master of Arts Degree in English with a concentration in English as a Second Language will, in addition to the General Regulations for the Master's Degree, be required to successfully complete either Option I or Option II as indicated below.

Option I (a total of 30 semester hours including a thesis is required):

ANTH 560. Language, Culture, and Culture Change.
ENSL 531. Linguistic Approach to English as a Second Language.
ENSL 532. Comparative Linguistic Structures of Spanish and English.
ENSL 562. Reading Techniques in English as a Second Language.
FL 531. Basic Research Design in Foreign Languages.

Six (6) semester hours of supportive coursework, as approved by the Graduate Advisor and Dean (ENCL 833, FL 581, BCBL 532 are suggested).
Option II (a total of 36 semester hours of approved course work is required):

ANTH 500. Language, Culture, and Culture Change.
ENSL 531. Linguistic Approach to English as a Second Language.
ENSL 532. Comparative Linguistic Structures of Spanish and English.
ENSL 561. Teaching English as a Second Language.
ENSL 562. Reading Techniques in English as a Second Language.
ENSL 881. Internship.
FL 531. Basic Research Design in Foreign Languages.

Nine (9) semester hours of supportive course work, as approved by the Graduate Advisor and Dean (ENGL 633, FL 561, BCBL 532 are suggested).
Six (6) semester hours of course work in related area (Spanish, English, Bicultural-Bilingual Studies are suggested areas), as approved by the Graduate Advisor and Dean.

MASTER OF ARTS DEGREE IN SPANISH

The Master of Arts in Spanish focuses on the various aspects of intellectual and creative development in Spain, Spanish America and the U. S. Southwest as reflected in language, literature and cultural patterns. Through training in the principles of the disciplines and supportive areas and in bibliographical methods, and comparative literary or cultural analysis, students become specialists capable of producing integrated and authoritative studies in the various fields. They are prepared for careers in scholarship; in teaching at the elementary, high school, or college levels; or in various branches of government, business, law, and social service.

Three concentrations are available in the program to fit the varying needs and interests of prospective students. These are in Hispanic Literatures, Hispanic Culture, and Spanish Language.

Special Admission Requirements. In addition to the University wide admission requirements, applicants are expected to have a bachelor's degree with a major in Spanish or the equivalent and an adequate command of both written and oral Spanish. Also recommended is a minimum of four semesters of work in a second foreign language and broad acquaintance with Hispanic Culture.

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**Degree Requirements.** All candidates for the degree will, in addition to satisfying the General Regulations for the Master's Degree, be required to successfully complete:

a. the core courses,

b. the required courses for a concentration,

c. the remaining requirements for either Option I or Option II.

**Core Courses:**
- BCBL 531. Foundations of Hispanic Cultures.
- SPAN 531. Cultural and Structural Dimensions of the Spanish Language.
- SPAN 532. The Hispanic Literary Heritages.

**Concentrations:**

- **Hispanic Culture**
  - FA 571. The Hispanic Fine Arts.
  - SPAN 573. The History of Ideas in Spain and Spanish America.

- **Hispanic Literatures**
  - SPAN 560. Masterpieces of Hispanic Literatures.
  - SPAN 561. Contemporary Hispanic Literature.
  - SPAN 565. Seminar in Hispanic Literatures.

- **Spanish Language**
  - SPAN 584. History of the Spanish Language.
  - SPAN 585. Stylistics and Syntax.

**Option I:**
Six (6) semester hours of course work in a second field, as approved by the Graduate Advisor and Dean, and completion of an acceptable thesis (Spanish 691, six hours).

**Option II:**
Nine (9) semester hours of course work in a second field, as approved by the Graduate Advisor and Dean.
Nine (9) semester hours of course work in the concentration, a second field, or from a related area, as approved by the Graduate Advisor and Dean.
COURSE DESCRIPTIONS

ANTHROPOLOGY
(ANTH)

531 THE ARCHAEOLOGY OF MESOAMERICA.
(3-0) 3 hours credit.
A survey of the major features of the native cultures of Mexico and Guatemala. Emphasis will be put on cultural evolution, the growth and decline of civilizations, relationships with natural settings, interaction among the cultures, and continuities into the historical present.

532 ARCHAEOLOGICAL BACKGROUNDS OF THE MIDDLE EAST, THE MEDITERRANEAN, AND EUROPE.
(3-0) 3 hours credit.
Examination of the major events of prehistory in the area, the establishment of agricultural life, the development of urbanism, and the interaction of the various zones of the area in the evolution of civilization.

533 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 will all be considered.

535 THE ARCHAEOLOGY OF SOUTH AMERICA.
(3-0) 3 hours credit.
A consideration of the major features of native cultures of South America, Central America and the Caribbean. Emphasis on the variety of cultural forms and cultural evolution. The roles of demography, subsistence systems, militarism, religion, and other factors in the rise of South American cultures will be discussed.

536 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 will be the colonial through the recent period although emphasis will be on the latter. Community studies of traditional communities, social structural and economic systems studies, urban anthropology, and other sources will be utilized.

560 LANGUAGE, CULTURE, AND CULTURE CHANGE.
(3-0) 3 hours credit.
Analysis of the nature and function of language and non-verbal communication. Problems of cross-cultural communication and acculturation in relation to cultural conflict with particular emphasis on the Mexican-American. Includes cultural dynamics and directed change.

585 CULTURAL ECOLOGY.
(3-0) 3 hours credit.
A systems approach to the inter-relationships between man, culture, and the natural world.

580 MEDICAL ANTHROPOLOGY.
(3-0) 3 hours credit.
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.

581 SEMINAR IN MEXICAN-AMERICAN CULTURE.
(3-0) 3 hours credit.
A survey of Mexican-American culture. Special studies in ethnology, ethnography, folklore, and linguistics.

631 SEMINAR IN ANTHROPOLOGY OF MESOAMERICA.
(3-0) 3 hours credit. Prerequisite: ANTH 531.
Topical focus will vary, but concentration will be on problems of anthropological interest in ethnology, archaeology or ethno-history. May be repeated for credit.

COURSE DESCRIPTIONS

ENGLISH

530 STUDIES IN RENAISSANCE DRAMA.
(3-0) 3 hours credit.
Reading and analysis of plays by Marlowe, Shakespeare, Ben Jonson, Kyd, Beaumont, Fletcher, and others.

531 STUDIES IN VICTORIAN POETRY.
(3-0) 3 hours credit.
A consideration and analysis of poetry by the Brownings, Tennyson, Swinburne, Morris, Rosetti, and others.

532 STUDIES IN 19TH CENTURY AMERICAN FICTION.
(3-0) 3 hours credit.
Critical analysis of works by Melville, Hawthorne, Howell, James, Twain, Poe, and others.

533 STUDIES IN THE FICTION OF THE GREATER SOUTH-WEST.
(3–0) 3 hours credit.
Consideration of the works of Dobie, LaFarge, "The Santa Fe School," Steinbeck, Bret Harte, and others.

535 MODERN AMERICAN SHORT STORY.
(3–0) 3 hours credit.
An in-depth study of the short story from the point of view of structure, theme, and style. Such writers as Hemingway, Welty, Porter, Faulkner, Singer, Updike and others will be considered.

610, 620, 630 SPECIAL PROBLEMS.
1 to 3 hours credit.
May be repeated but not more than 6 hours will apply to a Master's degree. All work required for credit must be submitted to the instructor two weeks prior to the final examination period and must be completed no later than one year from the date of enrollment in the course. Requires permission of the instructor.

633 SEMINAR: ENGLISH LINGUISTICS.
(3–0) 3 hours credit.
May be repeated for credit when topics vary. Topics: sociolinguistics, phonological analysis, grammatical analysis, grammar of written English.

COURSE DESCRIPTIONS

ENGLISH AS A SECOND LANGUAGE
(ENSL)

531 LINGUISTIC APPROACH TO ENGLISH AS A SECOND LANGUAGE.
(3–0) 3 hours credit.
Phonemic and morphemic analysis. Theoretical background to the techniques, and their application as tools to the problems of bilingualism. Consideration of such matters as transformational grammar will be included. Practicum work is required.

532 COMPARATIVE LINGUISTIC STRUCTURES OF SPANISH AND ENGLISH.
(3–0) 3 hours credit. Prerequisite: ENSL 531.
Detailed analysis and comparison of linguistic structures of the two languages with an emphasis on problem areas of bilinguals. Means of dealing with these problems will be emphasized.
561 TEACHING ENGLISH AS A SECOND LANGUAGE.
(3-0) 3 hours credit.
Survey of the basic philosophies and approaches in methodologies in teaching the oral aspects of English as a second language. Includes practice in techniques for developing oral language and incidental learning.

562 READING TECHNIQUES IN ENGLISH AS A SECOND LANGUAGE.
(3-0) 3 hours credit.
The teaching of reading English as a second language with emphasis on the development of audio-lingual mastery as a basis of reading development—all within a cross-cultural context. Exploration of testing techniques and the use of audio-lingual materials applicable to the development of cognition skills.

610, 620, 630 SPECIAL PROBLEMS.
1 to 3 hours credit.
May be repeated but not more than 6 hours will apply to a Master's degree. All work required for credit must be submitted to the instructor two weeks prior to the final examination period and must be completed no later than one year from the date of enrollment in the course. Requires permission of the instructor.

681 INTERNSHIP.
(0-9) 3 hours credit. Prerequisite: Approval of the Dean.
An opportunity will be provided the student to work in an environment setting which will permit—him to apply the knowledge learned in the formal institution part of the program.

691 MASTER'S THESIS.
(3-0) 3 hours credit.
May be repeated for credit but not more than 6 hours will apply to the Master's degree. Permission of the instructor is required. Enrollment in ENSL 691 is required each term the thesis is in progress.

COURSE DESCRIPTIONS
FOREIGN LANGUAGES
(FL)

531 BASIC RESEARCH DESIGN IN FOREIGN LANGUAGES.
(3-0) 3 hours credit. Prerequisite: A basic statistics course.
Consideration of basic concepts of research design, strategies and sources. An examination of tests and measurements, multivariate statistics, and computer-assisted instruction. Includes field experience and data analysis.
561 FOREIGN LANGUAGE MEDIA INSTRUCTION.
(3–0) 3 hours credit.
Consideration of all media in implementation of foreign language instruction and curriculum, survey of the basic philosophies and approaches in methodology in the teaching of foreign language.

COURSE DESCRIPTIONS

GEOGRAPHY
(GEOG)

535 THE REGIONAL GEOGRAPHY OF THE GREATER SOUTHWEST.
(3–0) 3 hours credit.
The physical and cultural characteristics of the American Southwest, including Texas, and the adjacent parts of Mexico. Both Pre-Hispanic and European periods will be considered.

561 CULTURAL AND PHYSICAL GEOGRAPHY OF NORTH AMERICA.
(3–0) 3 hours credit.
Physical and cultural characteristics of the human use of the North American continent both in aboriginal times and after European contact. Ecological zoning, settlement patterning, demographic developments, cultural influence and modification of the landscape will be among the topics covered.

563 CULTURAL AND PHYSICAL GEOGRAPHY OF MIDDLE AMERICA.
(3–0) 3 hours credit.
Physical and cultural characteristics of human occupation of the area between the Greater Southwest and South America. Ecological and cultural diversity, economic interdependence, demographic history, aboriginal and European land use will be included in the course.

565 CULTURAL AND PHYSICAL GEOGRAPHY OF SOUTH AMERICA.
(3–0) 3 hours credit.
Characteristics of aboriginal and post-European land use and interaction among the varying ecological settings of South America. Contrasts between the settlement patterns and land use of the tropical forest zones, the Andes, and the llanos of the Southwest.

567 CULTURAL AND PHYSICAL GEOGRAPHY OF THE MEDITERRANEAN AND EUROPE.
(3–0) 3 hours credit.
Consideration of the prehistoric and historic periods in ecological interaction with human populations. Such matters as central place theory, etc., will be used to explain settlement patterns and economic developments. Topics such as the Roman subsistence dependence on North Africa will be included.

581 ECONOMIC GEOGRAPHY.
(3-0) 3 hours credit.
Substantive and theoretical consideration of the economic implications of geography. Topics include the development of industrial patterns, subsistence patterns, transportation systems, and resource exploitation. Central place theory, Boserup's theory of agricultural growth, and other theoretical matters will be considered.

631 SEMINAR IN THE GEOGRAPHY OF LATIN AMERICA.
(3-0) 3 hours credit.
May be repeated for credit when topics vary.

COURSE DESCRIPTIONS

HISTORY
(HIST)

530 SEMINAR IN AMERICAN STATE AND LOCAL HISTORY.
(3-0) 3 hours credit.
The nature of history and its writing; the relationship of local and immediate events to national and regional affairs; the possibilities for classroom use of local history in stimulating student interest in broader historical matters; use of local source materials such as county, community, and private documents.

531 SEMINAR IN TEXAS HISTORY.
(3-0) 3 hours credit.
Intensive examination of the major issues of Texas History.

532 READINGS SEMINAR IN AMERICAN HISTORY FOR TEACHERS.
(3-0) 3 hours credit.
Individually tailored programs of readings for high school history teachers, coordinated in a seminar.

533 COLLOQUIUM ON MAJOR ISSUES IN AMERICAN HISTORY.
(3-0) 3 hours credit.
A series of related presentations by staff and outside scholars on current controversies, major interests, trends, and new research in American History. Students will be expected to prepare for each colloquium by appropriate reading.
560 HISTORY OF SOUTH AMERICA: THE COLONIAL PERIOD.
(3-0) 3 hours credit.
Includes consideration of the Caribbean; covers 1492 to 1810. 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.

561 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.

570 EUROPEAN HISTORY: THE AGE OF EXPLORATION.
(3-0) 3 hours credit.
Focuses on 15th and 16th century European contacts and discovery of the other parts of the world. Political, economic, and cultural impacts.

571 EUROPEAN HISTORY: A SURVEY OF ENGLISH HISTORY.
(3-0) 3 hours credit.
Consideration of the major features on English cultural, political, economic, and military history. Detailed examination of selected eras and events, such as the Elizabethan period, the Industrial Revolution, the establishment of the Indian Empire, and the Puritan Revolution.

(3-0) 3 hours credit.
Restructuring of European politics after Waterloo; nationalist movements, Italy and Greece; the Pan-Slavic movement; the Franco-Prussian War; Socialist movements and Marxism; rise of Germany; colonial and imperial rivalries; World War I; the Russian Revolution; between the world wars; dictatorships and totalitarian movements; World War II.

580 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 viceregalty.

581 HISTORY OF MEXICO AND GUATEMALA: THE EARLY REPUBLICAN PERIOD.
(3–0) 3 hours credit.
The background of the War of Independence; the wars themselves; economic and social changes and developments in republican times; European interventions; the War with the United States; conservative and liberal conflicts; the Porfiriato. The Central American Federation. European immigration to Guatemala in the 19th century.

582 HISTORY OF MEXICO AND GUATEMALA: THE MODERN PERIOD.
(3–0) 3 hours credit.
The revolution of 1910 in Mexico; Madero, Obregon, Zapata, Villa; intervention; Calles and the anti-clerical movement; stabilization; Cardenas and the Petroleum Crisis. Guatemala and the dictatorship of Ubico; World War II and changes in Mexico and Guatemala. Post-war developments. Indigenismo.

587 SEMINAR IN THE HISTORY OF MEXICO.
(3–0) 3 hours credit.
May be repeated for credit when topics vary.

590 THE GREATER SOUTHWEST.
(3–0) 3 hours credit.
A study of the regional events of the area and their relationships to larger matters in Mexico and the United States during the nineteenth and twentieth centuries. Historical perspectives of U.S. and Mexico relations in which political, intellectual, and economic developments are interwoven with sociological and demographic questions.

591 AMERICAN HISTORY: SEMINAR IN SOUTHWEST HISTORY.
(3–0) 3 hours credit.
May be repeated as topics vary.

COURSE DESCRIPTIONS

POLITICAL SCIENCE
(POSC)

531 AMERICAN POLITICAL PARTIES.
(3–0) 3 hours credit.
An introductory analysis of the institutions, processes, and techniques of political management in the United States. Emphasis will be on the contemporary era and its historical evolution.

533 COMPARATIVE POLITICAL INSTITUTIONS AND PROCESSES.
(3-0) 3 hours credit.
A cross-national analysis of specific institutions, processes, and problems. Topics include: political parties, interest groups, bureaucracies, legislatures, political socializations, political leadership, political system performance, etc.

535 CONTEMPORARY ISSUES IN AMERICAN GOVERNMENT.
(3-0) 3 hours credit. Prerequisite: Graduate standing.
An in-depth examination of the contemporary issues and problems involving government and politics in American society.

562 POLITICAL ORGANIZATION OF URBAN CENTERS.
(3-0) 3 hours credit.
An analysis of the alternative types of governmental organizations available to operate cities. The various alternative systems as they affect the development of cities and regions are evaluated.

610, 620, 630 SPECIAL PROBLEMS.
1 to 3 hours credit.
May be repeated but not more than 6 hours will apply to a Master's degree. All work required for credit must be submitted to the instructor two weeks prior to the final examination period and must be completed no later than one year from the date of enrollment in the course. Requires permission of the instructor.

COURSE DESCRIPTIONS

SOCIOLOGY
(SOC)

635 SOCIO-PSYCHOLOGICAL DIMENSIONS OF WORK.
(3-0) 3 hours credit.
Problems faced by members of the labor force in an industrialized society and the accompanying stresses that human specialization, 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.

636 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.

637 SEMINAR IN FAMILY RELATIONS.
(3-0) 3 hours credit.
Examination of specialized areas within the family studies area such as adult education for marriage and workshop sessions for teachers of family courses in public schools.

638 SEMINAR IN ADVANCED SOCIAL PSYCHOLOGY.
(3-0) 3 hours credit.
Study of theoretical and substantive bases of social action groups, together with a consideration of the influence of cultural patterns upon individual action patterns.

639 SEMINAR IN APPLIED SOCIAL SCIENCE.
(3-0) 3 hours credit.
The application of social science materials, methods, and theories to problems of society at large, government, and small group relations will be evaluated. Case studies will be presented and discussed.

COURSE DESCRIPTIONS

SPANISH
(SPAN)

531 CULTURAL AND STRUCTURAL DIMENSIONS OF THE SPANISH LANGUAGE.
(3-0) 3 hours credit.
A consideration of the cultural dimensions of the Spanish language as revealed through the study of the principles of lexical and grammatical change. The theory and application of phonemic and morphemic analysis.

532 THE HISPANIC LITERARY HERITAGES.
(3-0) 3 hours credit.
A chronological and eclectic study of the foundations and evolution of Hispanic Literatures through the study of literary genres and movements. Consideration of the contributions of Hispanic Literatures to World Literature.

560 MASTERPIECES OF HISPANIC LITERATURES.
(3-0) 3 hours credit.
An in-depth study of selected works from Spain and Spanish America. Correlated study of literary analysis and bibliographical research.
561 CONTEMPORARY HISPANIC LITERATURE.
(3–0) 3 hours credit.
A philosophical and artistic analysis of the major writers and works
in each literary genre of the 20th Century. Special emphasis will
be placed on the philosophical development of the Hispanic man
as he invents himself in the current century. One-third of the
course will deal with the Nobel Laureates.

565 SEMINAR IN HISPANIC LITERATURES.
(3–0) 3 hours credit. Prerequisite: SPAN 560 and SPAN 561.
Readings and discussions in Hispanic Literatures. May be re­
peated for credit when topics vary. A maximum of 6 hours may be
applied to a Master’s degree. (May be taken in any order.)
565A Seminar in Hispanic Literatures: El Modernismo.
565C Seminar in Hispanic Literatures: Spanish American Short
Story.
565D Seminar in Hispanic Literatures: The Generation of '98.
565E Seminar in Hispanic Literatures: Renaissance and Golden
Age Literature.
565F Seminar in Hispanic Literatures: 19th Century Spanish
Literature.

573 THE HISTORY OF IDEAS IN SPAIN AND SPANISH AMER­
ICA.
(3–0) 3 hours credit.
A concentrated, intensive study of the cultural and ideological cur­
rents especially as they are manifested in the works of major es­
sayists and other writers of Spain and Spanish America. Topics
include Hispano-Arabic culture, European thought in Spanish
America, Renaissance, Oriental influences in Spain, search for
identity in Mexico, and others.

576 SEMINAR IN SPANISH CULTURE AND CIVILIZATION.
(3–0) 3 hours credit.
An examination of the evolution of intellectual and artistic de­
velopments in Spain as reflected in the Mudejar, Medieval, and
Renaissance periods and their influence on Spanish culture and
civilization.

577 SEMINAR IN CONTEMPORARY HISPANIC CULTURES.
(3–0) 3 hours credit.
Consideration of contemporary changes in culture and civilization
in Spain and Spanish America. Special emphasis on the concept of
mestizaje as a synthesis of western and oriental man.

580 SEMINAR IN MEXICAN-AMERICAN LITERATURE.
(3–0) 3 hours credit.
An examination of the distinct genres of Mexican-American Literature as a unique intellectual and creative evolution and as an abridgment of Hispanic culture and literature.

584 HISTORY OF THE SPANISH LANGUAGE.  
(3–0) 3 hours credit.  
A systematic, chronological survey of the development of the Spanish language to the present time. Special emphasis on events and consequent modifications in the language by the realities of state, nation, institutions, science and art, including brief philosophical and etymological interpretations.

585 STYLISTICS AND SYNTAX.  
(3–0) 3 hours credit.  
A study of the optional variations in the sounds, forms, or vocabulary in the Spanish language as characterized by different users of the language, distinct situations of use, or different literary types. Also, a consideration of the optional variations and the expression of predicative, qualifying and other word relations according to established use.

586 SEMINAR IN SPANISH LINGUISTICS.  
(3–0) 3 hours credit. Prerequisites: SPAN 584 and SPAN 585. Research on selected topics. May be repeated for credit when topics vary. A maximum of 6 hours may be applied to a Master's degree. (May be taken in any order.)

586B Seminar in Spanish: Phonology.  
586C Seminar in Spanish Linguistics: Morphology.  

610, 620, 630 SPECIAL PROBLEMS IN SPANISH LANGUAGE.  
1 to 3 hours credit.  
Individual directed readings and conferences on select problems or topics in Spanish Language. May be repeated but not more than 6 hours will apply to a Master's degree. All work required for credit must be submitted to the instructor two weeks prior to the final examination period and must be completed no later than one year from the date of enrollment in the course. Requires permission of the instructor.

611, 621, 631 SPECIAL PROBLEMS IN HISPANIC CULTURES.  
1 to 3 hours credit.  
Individual directed readings and conferences on select problems or topics in Hispanic Cultures. May be repeated but not more than 6 hours will apply to a Master's degree. All work required for credit must be submitted to the instructor two weeks prior to the final
examination period and must be completed no later than one year from the date of enrollment in the course. Requires permission of the instructor.

612, 622, 632 SPECIAL PROBLEMS IN HISPANIC LITERATURES.
1 to 3 hours credit.
Individual directed readings and conferences on select problems or topics in Hispanic Literatures. May be repeated but not more than 6 hours will apply to a Master's degree. All work required for credit must be submitted to the instructor two weeks prior to the final examination period and must be completed no later than one year from the date of enrollment in the course. Requires permission of the instructor.

691 MASTER'S THESIS.
(3-0) 3 hours credit.
May be repeated for credit but not more than 6 hours will apply to the Master's degree. Permission of the instructor is required. Enrollment in 691 is required each term the thesis is in progress.
The College of Multidisciplinary Studies, in many ways, epitomizes the spirit and direction of UTSA as an academic community. For the most part, this College offers only graduate degrees even though it pervades the entire University by providing non-traditional and relevant courses which are vital to the University's total curriculum. The programs offered in this College are blends of several disciplinary areas, welded into a specialty that is dependent upon specific knowledge in each area. Many of the innovative and experimental programs generated by the University will find their places within the College of Multidisciplinary Studies.
MASTER OF ARTS DEGREE
IN ADVANCED STUDIES IN EDUCATION

Concentrations:
Cultural Foundations of Education
Curriculum and Instruction
Early Childhood and Elementary Education
Educational Management
Institutions of Higher Education

The Master of Arts Degree in Advanced Studies in Education offers five areas of concentration so that students may choose a program of study most suitable to their needs and objectives. Degree plans are designed to prepare competent personnel for public and private elementary and secondary schools, junior colleges and senior colleges and universities, as well as governmental agencies. At the heart of each degree program is the concept of flexibility which enables the degree program to be tailor-made to the particular needs of individual students.

The concentration in Cultural Foundations of Education is suitable for students who intend to complete a Master's degree preparatory to pursuing a Ph.D. degree in Education. The degree program provides broad based expertise in professional education. Research capabilities and cultural investigations are integrated throughout the program. Opportunities are included in the program for students to expand their proficiencies in related and supporting areas.

The concentration in Curriculum and Instruction is one of the most important parts of professional education at the graduate level. The student in this concentration will have an understanding of the integration of the total school program and will have the opportunity to develop special expertise in an academic area. Throughout the program the concepts of curricular innovation and excellence of teaching will be stressed. Classroom teachers will find this concentration of particular interest because of the opportunities to blend subject matter, curricular and instructional concepts with applied research and, as a result, demonstrate educational leadership.

The Early Childhood and Elementary Education concentration will stress human growth and development since a large amount
of the adult the child becomes is determined long before he reaches first grade. Included in the program is learning theory and familiarization with current research and research methods. Students in this program will learn how to observe and identify symptoms of learning problems as well as knowing how to cope with them effectively. This concentration is designed primarily for experienced classroom teachers at the early childhood and elementary levels.

The concentration in Educational Management is designed for those individuals who desire careers in public and private school systems, the elementary schools and secondary schools in administrative positions. This concentration will prepare individuals to understand instructional problems and educational philosophies as well as to develop expertise in management and the applications of management to educational settings. Sufficient flexibility is provided to allow students in this program to obtain additional training in related areas which will increase effectiveness in the educational setting while increasing their broad knowledge of the elementary and secondary educational processes. Students seeking administrative certification will be able to complete the requirements for this concentration while obtaining professional certification in administration and supervision.

The Institutions of Higher Education concentration is designed for those individuals seeking a career in the increasingly important areas of administration at the junior college, college or university levels. While many professionals will continue beyond the Master's level and seek the Ph.D. degree in this area, this program serves both the student for whom the MA degree is terminal and the student who is pursuing the MA degree as an intermediate program leading to the doctorate. Sufficient flexibility is incorporated in the program to allow students to obtain an understanding of the role, scope, and interactions of institutions of higher education, along with specialized areas in which professional competency will be required. In addition to the particular characteristics of institutions of higher education and the multitude of critical issues involved, students will complete considerable work outside the area of professional education which is especially applicable to the particular areas of administration sought.

Special Admission Requirements. Students seeking admission to
the Master of Arts Degree in Advanced Studies in Education will be required to meet the University-wide admission requirements. Students who are teachers, or who anticipate careers in teaching, should have completed certification requirements prior to pursuing the Master's degree. Individuals without adequate preparation in Education may be required to satisfactorily complete preparatory courses as a condition of admission; however, UTSA will not offer preparatory work until the University is on its permanent campus.

Degree Requirements. All candidates for the Master of Arts Degree in Advanced Studies in Education will, in addition to the General Regulations for the Master's Degree, be required to select a concentration and successfully complete either Option I or Option II for that concentration as indicated on the following pages.

Concentration in Cultural Foundations of Education

Option I (a total of 30 semester hours including thesis is required):

EDUC 530. Research Methods in Education.
EDUC 532. Evolution of Educational Thought.
EDUC 563. Socio-Economic Problems in Education.
EDUC 571. Legal Foundations of Education.
EDUC 581. Contemporary Educational Philosophy.
EDUC 583. Cultural Foundations of Education.
EDUC 691 (6 hours). Master's Thesis.
Six (6) semester hours of course work in a supporting area, as approved by the Graduate Advisor and Dean.

Option II (a total of 36 semester hours of course work is required):

EDUC 530. Research Methods in Education.
EDUC 532. Evolution of Educational Thought.
EDUC 563. Socio-Economic Problems in Education.
EDUC 571. Legal Foundations of Education.
EDUC 581. Contemporary Educational Philosophy.
EDUC 583. Cultural Foundations of Education.
Nine (9) hours of course work in a field outside of Education, as approved by the Graduate Advisor and Dean.
Nine (9) hours of electives, as approved by the Graduate Advisor and Dean.
**Concentration in Curriculum and Instruction**

**Option I** (a total of 30 semester hours including thesis is required):

- EDUC 530. Research Methods in Education.
- EDUC 531. Inferential Educational Statistics.
- EDUC 581. Contemporary Educational Philosophy.

Two of the following:

- CURR 561. Early Childhood and Elementary School Curricula.
- EDUC 691 (6 hours). Master's Thesis.

Six (6) semester hours of course work in a supporting area, as approved by the Graduate Advisor and Dean.

**Option II** (a total of 36 semester hours of course work is required):

- EDUC 530. Research Methods in Education.
- EDUC 531. Inferential Educational Statistics.
- EDUC 581. Contemporary Educational Philosophy.

Two of the following:

- CURR 561. Early Childhood and Elementary School Curricula.

Nine (9) hours of course work in a second field, as approved by the Graduate Advisor and Dean.

Nine (9) hours of electives, as approved by the Graduate Advisor and Dean.

**Concentration in Early Childhood and Elementary Education**

**Option I** (a total of 30 semester hours including a thesis is required):

- ECED 561. Seminar on Development in Early Childhood and Infancy.
EDUC 530. Research Methods in Education.
Either "A" or "B" below:

A

ECED 571. Diagnostic and Corrective Reading Techniques.


EDUC 581. Contemporary Educational Philosophy.

B

ECED 575. Language Development During Early Childhood.


EDUC 585. Education, Culture Differences and Acculturation.

EDUC 691 (6 hours). Master's Thesis.
Six (6) hours of course work in a supporting area, as approved by the Graduate Advisor and Dean.

Option II (a total of 36 semester hours of approved course work is required).

ECED 561. Seminar on Development in Early Childhood and Infancy.

ECED 565. Behavior Disorders in Children.

EDUC 530. Research Methods in Education.
Either "A" or "B" below:

A

ECED 571. Diagnostic and Corrective Reading Techniques.


EDUC 581. Contemporary Educational Philosophy.

B

ECED 575. Language Development During Early Childhood.


EDUC 585. Education, Culture Differences and Acculturation.

Nine (9) hours of course work in a second field, as approved by the Graduate Advisor and Dean.
Nine (9) hours of electives, as approved by the Graduate Advisor and Dean.

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Concentration in Educational Management

Option I (a total of 30 semester hours including a thesis is required):
- EDUC 530. Research Methods in Education.
- EDUC 581. Contemporary Educational Philosophy.
- MGMT 530. Foundations of Management.
- EDMG 561. School Finance and Taxation.
- EDMG 571. School and Community Relations.
- EDMG 581. Personnel Administration.
- EDUC 691 (6 hours). Master’s Thesis.

Six (6) hours of course work in a supporting area (a field in Business is strongly recommended), as approved by the Graduate Advisor and Dean.

Option II (a total of 36 semester hours of course work is required):
- EDUC 530. Research Methods in Education.
- EDUC 581. Contemporary Educational Philosophy.
- MGMT 530. Foundations of Management.
- EDMG 561. School Finance and Taxation.
- EDMG 571. School and Community Relations.
- EDMG 581. Personnel Administration.

Nine (9) hours of course work in a second field (a field in Business is strongly recommended), as approved by the Graduate Advisor and Dean.

Nine (9) hours of electives, as approved by the Graduate Advisor and Dean.

Concentration in Institutions of Higher Education

Option I (a total of 30 semester hours including a thesis is required):
- EDUC 530. Research Methods in Education.
- MGMT 530. Foundations of Management.
- HED 571. Resource Allocations in Higher Education.
- HED 581. Seminar in Governance of Higher Education.
- HED 591. The American College Student.
- HED 595. Contemporary Thought in Higher Education.
- EDUC 691 (6 hours). Master’s Thesis.

Six (6) hours of course work in a supporting area (a field in Business is strongly recommended), as approved by the Graduate Advisor and Dean.
Option II (a total of 36 semester hours of course work is required):
EDUC 530. Research Methods in Education.
MGMT 530. Foundations of Management.
HED 571. Resource Allocations in Higher Education.
HED 581. Seminar in Governance of Higher Education.
HED 591. The American College Student.
HED 595. Contemporary Thought in Higher Education.
Nine (9) hours of course work in a second field (a field in Business is strongly recommended), as approved by the Graduate Advisor and Dean.
Nine (9) hours of electives, as approved by the Graduate Advisor and Dean.

MASTER OF ARTS DEGREE
IN BICULTURAL-BILINGUAL STUDIES

Concentrations in:
Bicultural Studies
Bilingual Teacher Education

The Master of Arts Degree in Bicultural-Bilingual Studies represents a unique venture in meeting several societal needs. The concentration in Bilingual Teacher Education carries beyond the baccalaureate degree in Early Childhood and Elementary Education and leads to intensive language training and associated cultural studies. The concentration in Bicultural Studies is designed for students with a variety of undergraduate backgrounds and offers multi-cultural studies with intensive specialization in a combination of two cultures (initially American and Spanish/Latin American). Graduates will attain an in-depth familiarity with the physical, social, and economic environment of the cultures studied. Some work in the degree plan is in the area of the student's undergraduate major with special attention given to the chosen culture setting.

Special Admission Requirements. Students entering this program must, in addition to the University-wide admission requirements, demonstrate proficiency in both the Spanish and English languages by satisfactorily passing an examination in these languages.

Degree Requirements. All candidates for the Master of Arts Degree in Bicultural-Bilingual Studies will, in addition to the Gen-
eral Regulations for the Master's Degree, be required to select a concentration and successfully complete either Option I or Option II for their concentration as indicated below.

**Concentration in Bicultural Studies**

**Option I** (a total of 30 semester hours including a thesis is required):

- **BCBL 530.** Cultural Dimensions of the Spanish and English Languages.
- **BCBL 531.** Foundations of Hispanic Cultures.
- **BCBL 532.** Biculturalism: U.S.-Mexico.
- **SPAN 580.** Seminar in Mexican-American Literature.
- **HIST 590.** The Greater Southwest.
- **BCBL 691 (6 hours).** Master's Thesis.

One of the following:

- **ART 561.** Art and Architecture of Mexico and Mexican America.
- **ART 562.** Pre-Columbian Art and Architecture of Mesoamerica.

Six (6) semester hours of course work in a supporting area, as approved by the Graduate Advisor and Dean.

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

- **BCBL 530.** Cultural Dimensions of the Spanish and English Languages.
- **BCBL 531.** Foundations of Hispanic Cultures.
- **BCBL 532.** Biculturalism: U.S.-Mexico.
- **SPAN 580.** Seminar in Mexican-American Literature.
- **HIST 590.** The Greater Southwest.

One of the following:

- **ART 561.** Art and Architecture of Mexico and Mexican America.
- **ART 562.** Pre-Columbian Art and Architecture of Mesoamerica.

Nine (9) semester hours of course work in a second field, as approved by the Graduate Advisor and Dean.

Nine (9) semester hours of course work in Bicultural-Bilingual Studies, or from a second field, or in a related area, as approved by the Graduate Advisor and Dean.
Concentration in Bilingual Teacher Education

Option I (a total of 30 semester hours including a thesis is required):

- BCBL 530. Cultural Dimensions of the Spanish and English Languages.
- BCBL 531. Foundations of Hispanic Cultures.
- BCBL 561. Advanced English and Spanish Conversation and Rhetoric.
- BCBL 691 (6 hours). Master's Thesis.

Nine (9) semester hours of supporting course work, as approved by the Graduate Advisor and Dean.

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

- BCBL 530. Cultural Dimensions of the Spanish and English Languages.
- BCBL 531. Foundations of Hispanic Cultures.
- BCBL 561. Advanced English and Spanish Conversation and Rhetoric.
- BCBL 575. Techniques of Teaching to Develop Bilingualism.

Nine (9) semester hours of course work in a second field, as approved by the Graduate Advisor and Dean.

Nine (9) semester hours of course work in Bicultural-Bilingual Studies, the second field, or from a related area, as approved by the Graduate Advisor and Dean.

MASTER OF SCIENCE DEGREE
IN BICULTURAL-BILINGUAL STUDIES

Concentration in Bilingual Medical Interpreting

The Master of Science Degree with a concentration in Bilingual Medical Interpreting is a unique graduate program designed to prepare specialists who combine fluency in English and one other language (initially Spanish) with a solid foundation in the life sciences and medical concepts and terminology. The problems encountered in health care delivery systems with non-English
speaking patients can be remedied only by the availability of specialized interpreters. This program will prepare individuals to serve as gatherers, interpreters, and managers of medical data in bilingual settings in which both oral and written sources of information are studied.

Special Admission Requirements. In addition to the University-wide admission requirements, students entering this program must demonstrate proficiency in both the Spanish and English languages by satisfactorily passing an examination in these languages. Instead of the requirement of a minimum of 18 hours of specific undergraduate work, an individual review of the applicant's background will be made in order to ensure adequate preparation for graduate study.

Degree Requirements. All candidates for the Master of Science Degree in Bicultural-Bilingual Studies, with a concentration in Bilingual Medical Interpreting will, in addition to the General Regulations for the Master's Degree, be required to successfully complete the following courses.

- BMI 530. Socio-Cultural Foundations of Medicine.
- BIOL 533A. Medical Life Sciences I.
- BIOL 533B. Medical Life Sciences II.
- BMI 561A. Medical Terminology I.
- BMI 561B. Medical Terminology II.
- ANTH 580. Medical Anthropology.
- BMI 581. Gathering, Reporting, and Management of Medical Data.
- BMI 633. Seminar in Bilingual Medical Interpreting.
- BMI 660A, B, C. Internship.

Under certain circumstances and with the approval of the Graduate Advisor and Dean, students may select Option I in which six hours of thesis may be substituted for six hours of required course work and the program adjusted to a minimum of 30 semester hours of credit including the thesis.

Students who have previously completed the equivalent of any of the above courses will be permitted to substitute other related courses, as approved by the Graduate Advisor and Dean.
MASTER OF ARTS DEGREE
IN ENVIRONMENTAL MANAGEMENT

Concentrations in:
Management of Human Resources
Urban Studies

The Master of Arts Degree in Environmental Management with concentrations in Management of Human Resources and Urban Studies is available to students whose undergraduate degrees are in a variety of areas. Upon completion of one of the concentrations, the graduate can look forward to a career with government agencies, industry, or planning organizations. The concentration in Management of Human Resources is especially well-suited for those individuals who wish to prepare for careers in manpower management in the public or private sectors. The concentration in Urban Studies is intended for those individuals seeking positions in city government and with governmental planning organizations.

Special Admission Requirements. There are no special admission requirements in addition to the University-wide requirements which apply for admission to the Master of Arts Degree program in Environmental Management. Instead of the requirement of a minimum of 18 hours of specific undergraduate work, an individual review of the applicant's background will be made in order to ensure adequate preparation for graduate study.

Degree Requirements. Each candidate for the Master of Arts Degree in Environmental Management will, in addition to the General Regulations for the Master's Degree, be required to successfully complete a concentration in Management of Human Resources or Urban Studies and either Option I or Option II for that concentration as indicated below.

Concentration in Management of Human Resources

Option I (a total of 30 semester hours including thesis is required):

- ENVN 562. Human and Natural Resources.
- ECON 571. Economics of Human Resources.
ECON 632. Manpower Policy.
ENVN 633. Manpower Training.
ENVN 691 (6 hours). Master's Thesis.
Six (6) semester hours of course work in a supporting area, as approved by the Graduate Advisor and Dean.

*Option II* (a total of 36 semester hours of approved course work is required):

ENVN 560. Investigative Methods in Environmental Studies.
ENVN 562. Human and Natural Resources.
ECON 571. Economics of Human Resources.
ECON 632. Manpower Policy.
ENVN 633. Manpower Training.
ENVN 681A. Internship.
Nine (9) semester hours of course work in a second field, as approved by the Graduate Advisor and Dean.
Six (6) semester hours of course work in Environmental Management or the second field, or from a support area, as approved by the Graduate Advisor and Dean.

*Concentration in Urban Studies*

*Option I* (a total of 30 semester hours including thesis is required):

ECON 575. Urban Economics.
ENVN 560. Investigative Methods in Environmental Studies.
ENVN 562. Human and Natural Resources.
ENVN 691 (6 hours). Master's Thesis.
POSC 562. Political Organization of Urban Centers.
Six (6) semester hours of course work in a supporting area, as approved by the Graduate Advisor and Dean.

*Option II* (a total of 38 semester hours of approved course work is required):

ECON 575. Urban Economics.
ENVN 560. Investigative Methods in Environmental Studies.
ENVN 562. Human and Natural Resources.
ENVN 665. Urban Research.
ENVN 681A. Internship.
POSC 562. Political Organization of Urban Centers.

Six (6) semester hours of course work in a related field, as approved by the Graduate Advisor and Dean.
Six (6) semester hours of course work in Environmental Management, from the related field, or from another supportive area, as approved by the Graduate Advisor and Dean (ENVN 666 and FIN 663 are suggested).

MASTER OF SCIENCE DEGREE
IN ENVIRONMENTAL MANAGEMENT

Concentration in Management of Physical Resources

The Master of Science Degree in Environmental Management with a concentration in the Management of Physical Resources is designed for individuals whose backgrounds are in the sciences or management. Students are prepared for positions as managers of operations involving the utilization of natural resources. Both the macro society approach and the macro institutional aspects are studied throughout the program.

Because of the multidisciplinary approach to this program, two avenues are available. One is for those who have undergraduate degrees in the sciences or have a satisfactory foundation in the sciences. A second plan for the degree program is for students whose background in the sciences is not at a level which would enable them to proceed in the graduate program without additional study in the sciences. For students following this plan, foundation courses will be available which serve as prerequisites for the courses required for this degree.

Special Admission Requirements. There are no special admission requirements in addition to the University-wide requirements which apply for admission to the Master of Science Degree program in Environmental Management. Instead of the requirement of a minimum of 18 hours of specific undergraduate work, an individual review of the applicant's background will be made in order to ensure adequate preparation for graduate study.
**Degree Requirements.** Some or all of the following foundation courses may be required as conditions for students whose backgrounds in the sciences are insufficient to permit full admission to the graduate degree program:

- PHSC 530A. Physical Science Studies I.
- PHSC 530B. Physical Science Studies II.

All candidates for the Master of Science Degree in Environmental Management will, in addition to the General Regulations for the Master's Degree, be required to successfully complete either Option I or Option II as indicated below.

**Option I** (a total of 30 semester hours including a thesis is required):

- ENVN 563. Economics of Natural Resources.
- ENVN 571. Water Management.
- ENVN 575. Land Management.
- ENVN 691 (6 hours). Master's Thesis.

Six (6) hours of course work in a related field, as approved by the Graduate Advisor and Dean.

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

- ENVN 563. Economics of Natural Resources.
- ENVN 571. Water Management.
- ENVN 575. Land Management.
- ENVN 585. Economic Geology.
- ENVN 681A. Internship.

Nine (9) semester hours of elective course work approved by the Graduate Advisor and Dean.
COURSE DESCRIPTIONS

BICULTURAL-BILINGUAL STUDIES  
(BCBL)

530 CULTURAL DIMENSIONS OF THE SPANISH AND ENGLISH LANGUAGES.  
(3-0) 3 hours credit.  
Philological, phonetic, and historical linguistic survey of Spanish and English. Their relationship to each other and to other Indo-European languages and in the case of Spanish also to the indigenous languages of Mexico, Central America and South America. Cultural factors influencing linguistic change.

531 FOUNDATIONS OF HISPANIC CULTURES.  
(3-0) 3 hours credit.  
A study of Iberian history and the confluence of cultures resulting from the colonization of America. A survey of the content of intellectual and artistic development as evidenced in the utilization of the physical, cultural, spiritual and human resources of the Iberian Peninsula and Spanish America. Methods and techniques of cultural analysis.

532 BICULTURALISM: U.S.-MEXICO.  
(3-0) 3 hours credit.  
U.S.-Mexico based biculturalism: the multicultural antecedents. The pre-Columbian, colonial, and contemporary worlds of Mexico and the American Southwest are studied through the art, architecture, literature, and music. Political, economic, and religious developments in the area are also treated.

561 ADVANCED ENGLISH AND SPANISH CONVERSATION AND RHETORIC.  
(3-0) 3 hours credit.  
Intensive practice in the art of writing and speaking Spanish and English as a means of communication or persuasion. Skills developed in the effective use of speech in both languages.

571 CULTURAL ADAPTATION SUPPORTIVE OF BILINGUALISM.  
(3-0) 3 hours credit.  
The study of institutions, artifacts, fine arts, and their implications for assimilation into bilingual language patterns. Special techniques of explanation of cultural concepts unfamiliar to kindergarten and primary grade children will be explored.

573 BICULTURAL FOUNDATIONS OF LEARNING.  
(3-0) 3 hours credit.
A consideration of the philosophies, research, and theories of the bicultural environment's effect on student self-concept and self-awareness, as it relates to the learning process of individual children. Special consideration on designing individualized instruction in bilingual education.

575 TECHNIQUES OF TEACHING TO DEVELOP BILINGUALISM.
(3-0) 3 hours credit.
A study of the different methodologies and techniques and the utilization of media in developing bilingualism. Curricular materials and supplemental reading will be compared and presented in both languages to assure teacher comprehension of the delicacy of communication of thoughts expressed in one language and comprehended in another.

610, 620, 630 SPECIAL PROBLEMS.
1 to 3 hours credit.
May be repeated but not more than 6 hours will apply to a Master's degree. All work required for credit must be submitted to the instructor two weeks prior to the final examination period and must be completed no later than one year from the date of enrollment in the course. Requires permission of the instructor.

691 MASTER'S THESIS.
(3-0) 3 hours credit.
May be repeated for credit but not more than 6 hours will apply to the Master's degree. Permission of the instructor is required. Enrollment in BCBL 691 is required each term the thesis is in progress.

COURSE DESCRIPTIONS

BILINGUAL MEDICAL INTERPRETING
(BMI)

(Courses may be taught in English or Spanish or both, depending on the needs of the students.)

530 SOCIO-CULTURAL FOUNDATIONS OF MEDICINE.
(3-0) 3 hours credit. Prerequisite: Graduate standing.
A course dealing with the role of medicine in society studied from historical as well as contemporary points of view. Specific areas covered are the contributions of medicine to human betterment, preparation of physicians, role of medical research, changing role of medical technology, and the economics of medical care. The student is given a comprehensive overall view of the various branches of medical activity.
561A MEDICAL TERMINOLOGY I.
(3–0) 3 hours credit.
An intensive study of important medical terminology and concepts. Students will be expected to be bilingual in English and Spanish in conveying an understanding of this medical knowledge.

561B MEDICAL TERMINOLOGY II.
(3–0) 3 hours credit.
A continuation of 561A in which additional terminology and concepts will be studied as well as reinforcement of the bilingual aspects of communicating this information.

571 HEALTH CARE DELIVERY SYSTEMS.
(3–0) 3 hours credit. Prerequisite: BMI 530.
An examination of medical centers, hospitals, clinics, and private physicians' offices as they function to provide needed health services for the population. Special emphasis will be made to give the student an understanding of the organization and functions of hospitals and medical centers, both public and private.

581 GATHERING, REPORTING, AND MANAGEMENT OF MEDICAL DATA.
(3–0) 3 hours credit.
A study of patient interviewing techniques and analysis of the information for eventual use by the physician. The management of this data for maintenance and ready accessibility is examined.

610, 620, 630 SPECIAL PROBLEMS.
1 to 3 hours credit.
May be repeated but not more than 6 hours will apply to a Master's degree. All work required for credit must be submitted to the instructor two weeks prior to the final examination period and must be completed no later than one year from the date of enrollment in the course. Requires permission of the instructor.

633 SEMINAR IN BILINGUAL MEDICAL INTERPRETING.
(3–0) 3 hours credit.
A course intended to provide the student with an opportunity to study current problems relating to this area of medicine.

660A, B, C. INTERNSHIP.
(0–9) 3 hours credit each. Prerequisite: Approval of Dean.
An opportunity is provided the student to work in a health care delivery setting in a situation which permits him to apply the knowledge learned in the formal instruction part of the program. Enrollment in the internship must not exceed a total of 6 hours in any one semester, nor more than 3 hours in any one summer session. Enrollment is required for at least two semesters or one semester and two 6-weeks summer sessions.
691 MASTER'S THESIS.
(3–0) 3 hours credit.
May be repeated for credit but not more than 6 hours will apply to
the Master's degree. Permission of the instructor is required. En­
rollment in BMI 691 is required each term the thesis is in progress.

COURSE DESCRIPTIONS

CURRICULUM AND INSTRUCTION
(CURR)

561 EARLY CHILDHOOD AND ELEMENTARY SCHOOL CURR­
ICULA.
(3–0) 3 hours credit. Prerequisite: EDUC 530.
A systematic analysis of early childhood and elementary school
curricula. A critical study of objectives, methods of organiza­
tion, content, methods, and materials of learning used with young
children.

571 SECONDARY SCHOOL CURRICULA.
(3–0) 3 hours credit. Prerequisite: EDUC 530.
A systematic analysis of secondary school curricula. A critical
study of objectives, methods of organization, content, methods and
materials of learning used with youth.

581 HIGHER EDUCATION CURRICULA.
(3–0) 3 hours credit. Prerequisite: EDUC 530.
A systematic analysis of higher education curricula. A critical study
of objectives, methods of organization, content, methods and ma­
terials of learning used with college students.

591 SEMINAR IN CURRICULUM BUILDING.
(3–0) 3 hours credit. Prerequisite: EDUC 561 or EDUC 571 or
EDUC 581.
Selection and organization of the content, materials and methods
of instruction, teaching and learning in specialized areas of subject
matter are critically evaluated. Students will be required to de­
velop curricula and establish plans for implementation.

595 DEVELOPMENT OF INSTRUCTIONAL MATERIALS.
(3–0) 3 hours credit.
A course dealing with the development and implementation of
instructional materials. Special attention will be given to designing
programs suitable for audio-visual tutorial, self-paced instruction
that will permit flexibility for different student learning styles.
610, 620, 630 SPECIAL PROBLEMS.
1 to 3 hours credit.
May be repeated but not more than 6 hours will apply to a Master's degree. All work required for credit must be submitted to the instructor two weeks prior to the final examination period and must be completed no later than one year from the date of enrollment in the course. Requires permission of the instructor.

COURSE DESCRIPTIONS

EARLY CHILDHOOD AND ELEMENTARY EDUCATION
(ECED)

561 SEMINAR ON DEVELOPMENT IN EARLY CHILDHOOD AND INFANCY.
(3-0) 3 hours credit.
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.

563 PRE-SCHOOL LEARNING THEORIES.
(3-0) 3 hours credit.
Analysis of ideas and practices advocated by leading contemporary early childhood specialists. Evaluation of these approaches through the observation of children to determine the degree of adequacy and practicality of these theories.

565 BEHAVIOR DISORDERS IN CHILDREN.
(3-0) 3 hours credit. Prerequisite: EDUC 530.
A careful analysis of the total array of the learning strengths and weaknesses of the child at each stage of development as the basis of his curricular diet.

571 DIAGNOSTIC AND CORRECTIVE READING TECHNIQUES.
(3-0) 3 hours credit.
Diagnosis of reading disabilities, remedial measures, and work with clinical cases. Incentives and skills used to teach the poor reader.

575 LANGUAGE DEVELOPMENT DURING EARLY CHILDHOOD.
(3-0) 3 hours credit.
Patterns of acquisition of language skills among the young of diverse ethnic groups will be analyzed in order to identify experiences that promote language development in early childhood.

581 SPECIALIZED INSTRUCTION IN THE ELEMENTARY SCHOOL.
(3-0) 3 hours credit. Prerequisite: EDUC 530.
Depth investigations of experimental programs in special areas of knowledge such as Mathematics, Science, Social Studies, will be made. Students will complete a field study.

610, 620,630 SPECIAL PROBLEMS.
1 to 3 hours credit.
May be repeated but not more than 6 hours will apply to a Master's degree. All work required for credit must be submitted to the instructor two weeks prior to the final examination period and must be completed no later than one year from the date of enrollment in the course. Requires permission of the instructor.

COURSE DESCRIPTIONS

EDUCATION
(EDUC)

530 RESEARCH METHODS IN EDUCATION.
(3-0) 3 hours credit. Prerequisite: Admission to graduate program.
Source for locating research information, basic concepts of research design, strategies of historical, descriptive, and experimental research, and descriptive statistics. A field study will be required.

531 INFERENTIAL EDUCATIONAL STATISTICS.
(3-0) 3 hours credit. Prerequisite: EDUC 530.
A study of inferential statistics and the application to the fields in education. Field study.

532 EVOLUTION OF EDUCATIONAL THOUGHT.
(3-0) 3 hours credit.
An analysis of the educational writings and teachings of Plato, Aristotle, the Scholasticists, Comenius, Dewey, Froebel, Herbart, Kant, Locke, Pestalozzi, Rousseau, and Spencer and the impact on contemporary educational theory and practice.

561 PSYCHOLOGICAL BASIS FOR LEARNING.
(3-0) 3 hours credit. Prerequisite: EDUC 530.
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.
563 SOCIO-ECONOMIC PROBLEMS IN EDUCATION  
(3–0) 3 hours credit. Prerequisite: EDUC 530.  
Identification and analysis of the major socio-economic problems in 
education, evaluation of attempted historical solutions, and policy 
formation.

565 LEARNING THEORIES RELATED TO HUMAN DEVELOPMENT.  
(3–0) 3 hours credit.  
Based on the observation of students and the study of learning 
theories, the relationships of age group characteristics, developmental tasks, behavioral changes from pre-school through high school to academic achievement are studied.

571 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.

581 CONTEMPORARY EDUCATIONAL PHILOSOPHY.  
(3–0) 3 hours credit.  
A critical examination of selected contemporary philosophies and an evaluation of their assimilation into educational thought and practices.

583 CULTURAL FOUNDATIONS OF EDUCATION.  
(3–0) 3 hours credit.  
An analysis of the role of the school in American society with special emphasis on its status, role, activities and relationships both within the school and as related to culture, the economy, technology, and change.

585 EDUCATION, CULTURE 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 for the pre-school and primary levels to meet unique learning needs of the non-English speaking child.

610, 620, 630 SPECIAL PROBLEMS.  
1 to 3 hours credit.  
May be repeated but not more than 6 hours will apply to a Master's degree. All work required for credit must be submitted to the instructor two weeks prior to the final examination period and must be completed no later than one year from the date of enrollment in the course. Requires permission of the instructor.
691 MASTER'S THESIS.
(3-0) 3 hours credit.
May be repeated for credit but not more than 6 hours will apply to the Master's degree. Permission of the instructor is required. Enrollment in EDUC 691 is required each term the thesis is in progress.

COURSE DESCRIPTIONS

EDUCATIONAL MANAGEMENT
(EDMG)

561 SCHOOL FINANCE AND TAXATION.
(3-0) 3 hours credit.
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.

571 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 inter-relationships among the home, schools, and community.

581 PERSONNEL ADMINISTRATION.
(3-0) 3 hours credit. Prerequisite: MGMT 530.
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.

610, 620, 630 SPECIAL PROBLEMS.
1 to 3 hours credit.
May be repeated but not more than 6 hours will apply to a Master's degree. All work required for credit must be submitted to the instructor two weeks prior to the final examination period and must be completed no later than one year from the date of enrollment in the course. Requires permission of the instructor.

660A, B INTERNSHIP IN EDUCATIONAL MANAGEMENT.
(0-9) 3 hours credit each. Prerequisite: Permission of Dean.
Supervised on-the-job experience with related reading and study. The intern will work with school administrators in applying management fundamentals to an ongoing school program. Students are exposed to decision-making processes such as program development, plant utility, financial and personnel management.
560 INVESTIGATIVE METHODS IN ENVIRONMENTAL STUDIES.  
(3–0) 3 hours credit. Prerequisite: A statistics course.  
A course intended to give the student the quantitative tools to  
gather, analyze, present, and interpret information dealing with  
human and natural resources. An effort is made to apply analytical  
tools to the interaction of these resources in an urban environment.

561 APPLIED ECOLOGY.  
(3–0) 3 hours credit.  
The impact of economic and related activity on the environment as  
it pertains to its effect on water, land, animal, and human resources. An evaluation of programs available and possible future undertakings to preserve a healthy environment which will be compatible with economic progress.

562 HUMAN AND NATURAL RESOURCES.  
(3–0) 3 hours credit.  
A study of the various dimensions of population as a resource or study emphasizing demographic variables such as birth rates, health, skills, and the role of humans in the environment. Natural resources are viewed from the contribution they make to the growth process of society. Major natural resources covered are water, land, and wildlife. The changing role of human and natural resources as they relate to technology over time is analyzed.

563 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.

564 CONCEPTS FOR ENVIRONMENTAL MANAGEMENT.  
(3–0) 3 hours credit.  
The application of management concepts as they relate to the development of human and natural resources and as they apply to urban growth. The initiation, organization, and development of programs to utilize efficiently human and natural resources in urban growth are examined.

571 WATER MANAGEMENT.  
(3–0) 3 hours credit.  
An application of management principles to the efficient utiliza-
tion of water resources by society. A study of water as a resource, its value, uses and changing role over time, as a result of ecological change. The formulation of public policy toward water resources is studied.

575 LAND MANAGEMENT.
(3-0) 3 hours credit.
An analysis of the various alternative uses of land and the methodology by which land is evaluated so as to put it to its most productive uses. The changing role of land as a resource as it is related to human and technological development is examined. Legal dimensions of natural resources.

585 ECONOMIC GEOLOGY.
(3-0) 3 hours credit.
The use of mineral resources as viewed from an economic dimension. Location of resources, transportation aspects, processing, and the role of changing technology as it relates to the value of these resources are analyzed.

591 BUSINESS DIMENSIONS OF ENVIRONMENTAL MANAGEMENT.
(3-0) 3 hours credit.
A course intended to give the student a survey introduction into the role of business tools in the areas of accounting, marketing, management, and finance as they relate to the efficient utilization of natural resources. The subject is approached from a public sector rather than from a business firm point of view.

610, 620, 630 SPECIAL PROBLEMS.
1 to 3 hours credit.
May be repeated but not more than 6 hours will apply to a Master's degree. All work required for credit must be submitted to the instructor two weeks prior to the final examination period and must be completed no later than one year from the date of enrollment in the course. Requires permission of the instructor.

633 MANPOWER TRAINING.
(3-0) 3 hours credit.
A course dealing with the various dimensions of training of a labor force to meet the changing needs of the economy and society. The causes of human obsolescence, availability of resources to combat this problem and evaluation of various alternative solutions are studied.

637 ECONOMICS OF HEALTH SYSTEMS.
(3-0) 3 hours credit.
The need for medical services, availability of resources, proposed
public policy solutions along with demographic and technological impacts are studied.

664 ECOLOGICAL DIMENSIONS OF URBAN SYSTEMS.  
(3–0) 3 hours credit.  
The theory of urban growth is studied in relation to the spatial relationships of towns and cities. The role of ecological factors in city planning and development. The impact of ecology as it affects the quality of city life is considered and contrasted to the economic dimensions of these decisions.

665 URBAN RESEARCH.  
(3–0) 3 hours credit.  
The development of specific analytical tools used in the analysis of urban activity and the application of these tools to analyze case histories. Model building using the systems approach is utilized.

666 SEMINAR IN URBAN HOUSING.  
(3–0) 3 hours credit.  
An analysis of housing problems, their causes and attempted solutions.

667 URBAN PLANNING.  
(3–0) 3 hours credit.  
The evolution of city planning, conceptual tools available to the planner and the roles of technology and aesthetics in social change and city planning.

668 COMPARATIVE URBAN DEVELOPMENT.  
(3–0) 3 hours credit.  
A comparative study of the interaction of culture, economics, and natural environment as they affect urban development over time. Areas covered include: pre-industrial cities in the Mediterranean, Medieval Europe, and Pre-Hispanic America. The impact of industrialization on traditional cities and of European influence on non-Western cities will be considered.

671 SEMINAR IN NATURAL RESOURCE MANAGEMENT.  
(3–0) 3 hours credit.  
A selection of current topics of interest and importance in the area of natural resource management.

881A, B INTERNSHIP.  
(0–9) 3 hours credit each. 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 institution part of the program.

891 MASTER'S THESIS.  
(3–0) 3 hours credit.
May be repeated for credit but not more than 6 hours will apply to the Master's degree. Permission of the instructor is required. Enrollment in ENVN 691 is required each term the thesis is in progress.

COURSE DESCRIPTIONS

HIGHER EDUCATION (HED)

561 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.

571 RESOURCE ALLOCATIONS IN HIGHER EDUCATION.
(3–0) 3 hours credit.
Concepts and practices in financing, planning, program and institutional budgeting in higher education.

581 SEMINAR IN GOVERNANCE OF HIGHER EDUCATION.
(3–0) 3 hours credit.
Analysis of current practices and issues in the governance of higher education which affect students, faculty, administration, scope and role of colleges and universities.

591 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.

595 CONTEMPORARY THOUGHT IN HIGHER EDUCATION.
(3–0) 3 hours credit.
A study of current thought as it relates to the management of institutions of higher education.

610, 620, 630, SPECIAL PROBLEMS.
1 to 3 hours credit.
May be repeated but not more than 6 hours will apply to a Master's degree. All work required for credit must be submitted to the instructor two weeks prior to the final examination period and must be completed no later than one year from the date of enrollment in the course. Requires permission of the instructor.
635 THE DEVELOPMENT OF HIGHER EDUCATION IN THE U.S.A.
(3–0) 3 hours credit.
A study of the transition from patterns of European institutions of higher learning to the development of uniquely American institutions. Relates the development of resources, human and physical, to the changing role of higher education in American society.

COURSE DESCRIPTIONS

SECONDARY EDUCATION (SED)

591 PROBLEMS OF TEACHING IN SECONDARY EDUCATION.
(3–0) 3 hours credit.
Case studies and seminar approach to theory and practice of teaching in secondary schools for experienced teachers. An advanced intensive study of classroom organizational patterns, communication patterns, leadership roles, experimental programs, and the selection and use of instructional materials will be among the problems investigated.

610, 620, 630 SPECIAL PROBLEMS.
1 to 3 hours credit.
May be repeated but not more than 6 hours will apply to a Master's degree. All work required for credit must be submitted to the instructor two weeks prior to the final examination period and must be completed no later than one year from the date of enrollment in the course. Requires permission of the instructor.
The College of Sciences and Mathematics will, when fully operative, offer professional training at both the graduate and undergraduate levels. Degree programs will be available in the sciences, quantitative studies, and allied health professions. A broad-based core of courses contributing to the total education of the University's non-science majors will be provided. The College is dedicated to programs which provide training in the theoretical aspects of the disciplines, stressing the applicational aspects. Whenever possible, the multidisciplinary concept is utilized in instruction.

Pending completion of permanent facilities, graduate programs and courses in the sciences and mathematics will be limited to those which can be offered in the temporary facilities.
MASTER OF SCIENCE DEGREE
IN MATHEMATICS AND SYSTEMS DESIGN

The graduate program in Mathematics and Systems Design is directed to those individuals who have backgrounds in both mathematics and computers and will enable graduates of the program at the Master’s level to perform as applied mathematicians capable of utilizing sophisticated computer systems. While the graduate will be a mathematician, he will be able to serve in a computer application capacity. Unlike the typical Master’s level mathematician who has a combination of theoretical and applied mathematics in his background, the graduate of this program will have proficiency in computers from the standpoint of systems organization and design, thus offering him the opportunity to utilize automata as a tool of mathematics and mathematics as a tool of automata.

Because of the heterogeneous backgrounds of students in this program, a dual track program is available. The first program is designed for those students whose backgrounds in either mathematics or computers represent less than the baccalaureate level. Under this plan, students will be able to take foundation courses at a sophisticated level to enrich their backgrounds so that graduate study is within their reach. Foundation courses will be in addition to those courses required for the MS degree in Mathematics and Systems Design.

The second plan of the program is for students whose backgrounds in mathematics are at the baccalaureate level and who are familiar with computer equipment and programming. These students will be able to embark immediately upon the MS degree program.

Some or all of the following foundation courses may be required as conditions for students whose backgrounds in either mathematics or computers are insufficient to permit full admission to the graduate degree program:

MATH 530A. Introduction to Computing.
MATH 530B. Introduction to the Theory of Programming.
MATH 531. Advanced Calculus.
MATH 533. Introduction to Abstract Algebra and Analysis.
MATH 534. Introduction to Linear Algebra and Matrix Theory.
MATH 535. Applications of Mathematics.
MATH 538. Mathematical Statistics.

Special Admission Requirements. There are no special admission requirements for the Master of Arts Degree in Mathematics and Systems Design other than the University-wide requirements. Since this program is a dual track program, students whose undergraduate preparation is not satisfactory to pursue the graduate program will be required to complete certain courses as conditions of admission. It is highly recommended that at least a minor in mathematics, through the undergraduate calculus series, be completed as preparation. 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 will, in addition to the General Regulations for the Master's Degree, be required to successfully complete either Option I or Option II as indicated below.

Option I (a total of 30 semester hours including a thesis is required):

MATH 567. Numerical Analysis.
MATH 568. Simulation Techniques.
MATH 570. Theory of Functions of a Real Variable.
MATH 591. Linear Algebra and Matrix Theory.
MATH 691 (6 hours). Master's Thesis.

Three (3) semester hours of electives in mathematics approved by the Graduate Advisor and Dean.

Option II (a total of 36 semester hours of approved course work is required):

MATH 567. Numerical Analysis.
MATH 568. Simulation Techniques.
MATH 570. Theory of Functions of a Real Variable.
MATH 571. Theory of Functions of a Complex Variable.
MATH 575. Ordinary Differential Equations.
MATH 590. Modern Algebra.
MATH 591. Linear Algebra and Matrix Theory.
MATH 631. Advanced Probability.
Three (3) semester hours of electives in mathematics approved by the Graduate Advisor and Dean.

COURSE DESCRIPTIONS

BIOLOGICAL SCIENCE
(BIOL)

531 FUNDAMENTALS OF LIFE SCIENCE.
(3–0) 3 hours credit.
The inter-relatedness of diverse populations is studied. Emphasis is on the similarities and differences in structure, function, and life cycles of living matter as it relates to energy and health requirement of ecosystems. Man-initiated disruptions of energy requirements of ecosystems are examined.

533A MEDICAL LIFE SCIENCES I.
(3–0) 3 hours credit. Prerequisite: An undergraduate course in biological science.
A study of developmental human anatomy with the basic processes of fertilization, growth, determination, differentiation in human beings in the molecular, cellular, tissue, and organismic levels. The systems and gross concepts of human anatomy will be studied.

533B MEDICAL LIFE SCIENCES II.
(3–0) 3 hours credit. Prerequisite: BIOL 533A.
An introduction to human physiology in which the functions of the human body are studied. Includes various systems such as respiratory, digestive, skeletal, circulatory, nervous, and hormonal.

537 RECENT DEVELOPMENTS IN LIFE SCIENCE.
(3–0) 3 hours credit.
Studies of the current developments in the life sciences and suggestions for their implementation. The course is intended for individuals teaching Life Science.
COURSE DESCRIPTIONS

EARTH SCIENCE

(ERTH)

532 FUNDAMENTAL EARTH SCIENCE STUDIES.

(3-0) 3 hours credit.
The course is designed to help the student learn terminology and energy relationships that are used in earth science. Emphasis is on those phenomena which have a direct impact on the habitat and survival of living organisms such as adiabatic changes, insulation, isostasy, thermal gradients and zenith angle. Students will also examine geological models used to explain the earth’s history. The well-being of man and other living organisms as affected by geological principles and phenomena will be studied.

COURSE DESCRIPTIONS

MATHEMATICS AND SYSTEMS DESIGN

(MATH)

530A INTRODUCTION TO COMPUTING.

(3-0) 3 hours credit. Prerequisite: Series of undergraduate courses in analytic geometry and calculus.
An introduction to the properties of digital computers, implementation of mathematical algorithms on a computer, assembly languages; arrays and lists; data processing algorithms. May not be taken for credit by students who have completed MATH 561, or who have completed 6 hours of credit in programming.

530B INTRODUCTION TO THE THEORY OF PROGRAMMING.

(3-0) 3 hours credit. Prerequisite: MATH 530A, or the equivalent.
Design and construction of computer programs, use of specific programming languages to solve problems of a wide range of applications, especially mathematical applications. Students will be required to demonstrate proficiency in at least two programming languages. Not intended for students with substantial knowledge of programming.

531 ADVANCED CALCULUS.

(3-0) 3 hours credit. Prerequisites: Graduate standing and series of undergraduate courses in analytic geometry and calculus. Calculus of real valued functions of one and several variables, real numbers and completeness, continuity, derivatives, Riemann integral, surface integrals, Jacobians, Laplace transforms, and other special functions.
533 INTRODUCTION TO ABSTRACT ALGEBRA AND ANALYSIS.
(3–0) 3 hours credit. Prerequisite: Series of undergraduate courses in analytic geometry and calculus.
An introduction to abstract mathematics including the real number system, sets, mappings, algebraic structures, mathematical induction, unique factorization, Gaussian integers, and an introduction to the theory of integration. May not be taken for credit by students who have completed MATH 590, or the equivalent.

534 INTRODUCTION TO LINEAR ALGEBRA AND MATRIX THEORY.
(3–0) 3 hours credit. Prerequisite: An undergraduate course in differential equations.
Matrices and linear transformations, vector spaces, and applications to the solution of differential equations. May not be taken for credit by students who have completed MATH 591, or the equivalent.

535 APPLICATIONS OF MATHEMATICS.
(3–0) 3 hours credit. Prerequisites: Undergraduate course in modern algebra and abstract analysis, or MATH 533 and MATH 534.
Applications of abstract algebras, geometry and analysis to the natural, social and physical sciences.

538 MATHEMATICAL STATISTICS.
(3–0) 3 hours credit. Prerequisites: Series of undergraduate courses in analytic geometry and calculus.
An introduction to the mathematical theory of probability and statistics. Includes the concept of probability and sampling, probability and sample spaces, principles of estimation, properties of estimators, sampling distributions, bivariate normal, random variables and distribution functions. May not be taken for credit by students who have completed MATH 631.

561 COMPUTER ORGANIZATION, EQUIPMENT AND LANGUAGE.
(3–0) 3 hours credit. Prerequisite: MATH 530B, or the equivalent.
A study of hardware and the functional characteristics of each, including I/O devices, CPU and various storage media; a study of software and support systems including the assembly process, compilers, operating systems, data structures and application packages; a study of the applicational uses, the strengths and weaknesses of each language, including assembly, FORTRAN, APL, COBOL, RPG, etc.
562 PROGRAMMING TECHNIQUES AND FILE DESIGN AND MANIPULATION.
(3-0) 3 hours credit. Prerequisite: MATH 561, or the equivalent.
Includes the types of file access methods such as random, sequential, and indexed organization; control methods; the relationship of the data base to file maintenance; modular programming, data collection and preparation; program system documentation; and the flow of information from input to on-line real time information systems.

567 NUMERICAL ANALYSIS.
(3-0) 3 hours credit. Prerequisites: Graduate standing and MATH 531, or the equivalent.
The analysis of methods for solving mathematical problems on digital computers including the solution of nonlinear equations, approximation of functions, numerical differentiation and integration. Analysis of convergence and estimation of error, functions of several variables, iterative methods, linear programming and testing, and automation of methods on a digital computer.

568 SIMULATION TECHNIQUES.
(3-0) 3 hours credit. Prerequisite: MATH 567, or the equivalent.
A study of the methods available to simulate realistic and theoretical situations and models from business, the physical and natural sciences, and mathematics. Each student will be required to develop an extensive simulation from his field of interest.

569 APPLIED MATHEMATICS.
(3-0) 3 hours credit. Prerequisite: Graduate standing.
Finite difference calculus, manipulation of sums and products, property of bilinear coefficients, Stirling numbers, harmonic numbers, Fibonacci numbers, uses of generating functions to solve complex recurrence relations, asymptotic expansions, analysis of computing algorithms. The emphasis is on obtaining closed-form solutions to problems when it is possible to do so.

570 THEORY OF FUNCTIONS OF A REAL VARIABLE.
(3-0) 3 hours credit. Prerequisite: MATH 531, or the equivalent.

571 THEORY OF FUNCTIONS OF A COMPLEX VARIABLE.
(3-0) 3 hours credit. Prerequisite: MATH 531, or the equivalent.
Complex integration, Cauchy's theorem, calculus of residues, power series, infinite products, entire functions, Picard's theorem, Riemann mapping theorem.
575 ORDINARY DIFFERENTIAL EQUATIONS.
(3-0) 3 hours credit. Prerequisites: MATH 531 and MATH 534, or the equivalent.
Ordinary differential equations in the real and complex domains, existence and uniqueness theorems; linear systems, analysis of singular points, Sturm-Liouville theorem, asymptotic expansions.

576 PARTIAL DIFFERENTIAL EQUATIONS.
(3-0) 3 hours credit. Prerequisites: MATH 571, MATH 575, and MATH 591, or the equivalent.
The theory of initial value and boundary value problems for hyperbolic, parabolic, and elliptic partial differential equations, with emphasis on nonlinear equations. More general types of equations and systems of equations.

581 GENERAL TOPOLOGY.
(3-0) 3 hours credit. Prerequisite: MATH 531, or the equivalent.
This course will cover some of the basic properties of metric and topological spaces, compactness, connectedness and continuity. Special attention will be paid to the Euclidean spaces, and the fixed-point and degree of mapping theorems will be developed.

590 MODERN ALGEBRA.
(3-0) 3 hours credit. Prerequisite: MATH 533, or the equivalent.
Topics include: groups, rings and fields, Galois theory, ideal theory, introduction to algebraic geometry, representation of groups and algebras, multilinear algebra.

591 LINEAR ALGEBRA AND MATRIX THEORY.
(3-0) 3 hours credit. Prerequisite: MATH 534, or the equivalent.
A study of the algebraic properties of matrices and their geometric interpretations. Topics include linear dependence, bases and coordinate systems, linear transformations and matrices, similarity and eigenvalues, reduction of quadratic forms, invariant subspaces, Hermitian and unitary matrices, and multilinear algebra. Emphasis will be on the use of computers in solutions.

610, 620, 630 SPECIAL PROBLEMS.
1 to 3 hours credit.
May be repeated but not more than 6 hours will apply to a Master's degree. All work required for credit must be submitted to the instructor two weeks prior to the final examination period and must be completed no later than one year from the date of enrollment in the course. Requires permission of the instructor.

631 ADVANCED PROBABILITY.
(3-0) 3 hours credit. Prerequisite: MATH 538, or the equivalent.
Fundamental concepts, weak and strong laws of large numbers,
convergence of distributions, the central limit theorem, infinitely divisible distributions and stable law.

632 STOCHASTIC PROCESSES.
(3-0) 3 hours credit. Prerequisites: MATH 591 and MATH 631. Includes basic concepts, random walks, recurrent events, Markov chains, boundary theory, branching and queuing processes, Brownian motion, a study of statistical inference for these processes, and computer applications.

661 OPERATIONS RESEARCH.
(3-0) 3 hours credit. Prerequisites: An undergraduate course in economics, a course in linear algebra, linear programming and mathematical probability.
An introduction to deterministic and stochastic models in operations research. Emphasis will be on nonlinear and dynamic programming problems and optimization for finding optimum values of design or operating variables affecting a given economic objective. Project management and administration will be included. Numerous applications to industry and business, including forecasts, investment strategies, risk analysis, return on investments, and other applications for management will be covered and the subject of required individual projects.

691 MASTER'S THESIS.
(3-0) 3 hours credit.
May be repeated for credit but not more than 6 hours will apply to the Master's degree. Permission of the instructor is required. Enrollment in MATH 691 is required each term the thesis is in progress.

COURSE DESCRIPTIONS

PHYSICAL SCIENCE
(PHSC)

530A PHYSICAL SCIENCE STUDIES I.
(3-0) 3 hours credit.
A non-calculus approach to principles of physical science dealing with the energy requirements of chemical and physical changes. Methods of investigating and evaluating energy utilizations and measuring matter and physical phenomena will be studied. Students will read basic books and journal articles that relate energy changes to ecosystems in addition to studying basic principles of physical science.

530B PHYSICAL SCIENCE STUDIES II.
(3-0) 3 hours credit.
A continuation of investigating energy requirements in chemical and physical changes including studies of carbon containing molecules, polymerizations, hydrolysis and energy transport systems found in nature. The functioning of physical principles in biological systems is examined. Man's standard of living as it relates to the amount of energy available is studied.

535 RECENT DEVELOPMENTS IN PHYSICAL SCIENCE.

(3–0) 3 hours credit.
Studies of the current developments in the physical sciences and suggestions for their implementation. The course is intended for individuals teaching chemistry, earth science or physics.
Appendix and Index
APPENDIX

RESIDENCE REGULATIONS

A student entering The University of Texas at San Antonio for the first time, or a student re-entering the University after an absence of more than one semester, should carefully read the rules governing the determination of residence, as stated below, so that he may be prepared, in the event of his classification as a nonresident of Texas, to pay the required tuition fee. This fee must be paid at the time of registration.

Chapter 54, Subtitle A, Title 3 of the Texas Education Code sets forth the regulations governing nonresident students in institutions of senior collegiate rank.

1. Minors.

Statute: Section 54.052 (b) An individual, under twenty-one (21) years of age, who is living away from his family and whose family resides in another state or has not resided in Texas for the 12-month period immediately preceding the date of registration shall be classified as a nonresident student;

Section 54.052 (c) An individual twenty-one (21) years of age or under whose family has not resided in Texas for the 12-month period immediately preceding the date of registration shall be classified as a nonresident student regardless of whether he has become the legal ward of residents of Texas or has been adopted by residents of Texas while he is attending an educational institution in Texas, or within a 12-month period before his attendance, or under circumstances indicating that the guardianship or adoption was for the purpose of obtaining status as a resident student;

Section 54.055 An individual 21 years of age or under whose parents were formerly residents of Texas is entitled to pay the resident tuition fee following the parents' change of legal residence to another state, as long as the individual remains continuously enrolled in a regular session in a state-supported institution of higher education.

A. Death or Divorce of Parents. The legal residence of a minor under 21 years of age is usually that of the father. Upon the death of the father, the legal residence of the minor is that of the mother.
Upon divorce or legal separation of the parents, the residence of the minor is determined by the residence of the parent with whom the minor is making his home at the time of registration.

**B. Custody by Court Order.** If the custody of the minor has been granted by court order (e.g., divorce decree, child custody action, guardianship or adoption proceedings) to some person other than the parent, the residence of that person shall control; provided, however, that such grant of custody was not ordered during or within a year prior to the minor's enrollment in an institution of higher education (defined as any public junior college, public senior college or university, medical or dental unit or other agency of higher education) and was granted under circumstances indicating that such guardianship was not for the purpose of obtaining status as a resident student.

If the minor is not making his home with either parent, and there is no court-appointed guardian, the residence of the parent with whom the minor last resided shall be presumed to control. If, however, the minor has made his home with, and has been dependent upon a grandparent for more than a year prior to enrollment in an institution of higher education, the residence of the natural guardian shall be regarded as his residence. The residence of a person other than a parent or a natural or legal guardian, who may furnish funds for payment of tuition, fees, or living expenses shall in no way affect the residence classification of a minor.

**C. Abandoned Child.** In the case of an abandoned child, the residence of a person who has stood in loco parentis for a period of time may determine the residence of such abandoned child. The fact of abandonment must be clearly established and must not have been for the purpose of affecting the residence of the minor, and the minor must have actually resided in the home of such person for two years immediately prior to registering in an institution of higher education in Texas and must have received substantially all of his support from such person. In the event that the in loco parentis relationship has not existed for the full two year period, a lesser period of time is acceptable in unusual hardship cases, such as death of both parents.

**D. Orphan.** An orphan who has lived for longer than a year in an established orphan's home in Texas operated by a fraternal, religious, or civic organization and has been graduated from the
orphan's home shall be considered a resident of Texas provided he remains in Texas from the time of such graduation until he enters an institution of higher education.

E. Emancipated Child. Under certain circumstances, a minor may become emancipated or freed from parental control. If the minor has broken completely with his parents, is in fact residing apart from them, and has been entirely independent and wholly self-supporting, he may establish that he is "emancipated."

If emancipation is clearly proved, the residence classification of the minor is determined by the residence of the minor rather than the residence of the parents, and after 12 months in Texas under such circumstances, the minor may be classified as a resident, if he otherwise satisfies the statutory requirements applicable to those over 21 (e.g., see presumption arising from residence while a student). Proof of this emancipation is the responsibility of the minor.

F. Married Minors. A minor male who is married shall have the power and capacity of a single person of full age and is entitled to select his own place of legal residence. After 12 months' residence in Texas under such circumstances the minor may be classified as a resident if he otherwise satisfies the statutory requirements applicable to those over 21 years of age. The legal residence of a minor female who is married is controlled by the legal residence of her husband. The residence classification for tuition purposes of either a nonresident male or female who marries a Texas resident shall be governed by the provisions of the tuition statute and of these rules and regulations as hereinafter set out.

G. Minors Whose Parents Moved to Another State or Foreign Country. If the parents of a minor who is enrolled as a resident student move their legal residence to another state or foreign country on, or after August 15, 1971, the minor shall be classified as a nonresident at all subsequent registration periods. Under provision of Section 54.055, the minor will be entitled to pay the resident tuition fee as long as he remains continuously enrolled in a regular session in a public institution of higher education. The minor student must re-enroll for the next available regular semester immediately following the parents' change of legal residence to another state.
If the parents of a minor move to another state or foreign country, or reside outside the state or in a foreign country at the time of enrolling in an institution of higher education, but claim legal residence in Texas, conclusive evidence must be presented that the father is still claiming legal residence in the State of Texas and that he has the present intent to return to the state. A certificate from the employer of the parents that the move outside the state was temporary and that there are definite plans to return the parents to Texas by a determinable future date may be considered in this connection.

If a minor whose parents have moved their legal residence to another state or foreign country resides in Texas for 12 consecutive months following his 21st birthday and by his actions clearly indicates that his intention is to establish permanent residence in the state, he may be classified as a resident student effective with the beginning of the term or semester following his 22nd birthday despite the fact that his entire period of residence in Texas has been as a student.

When the parents of a minor who have established their legal residence in another state or foreign country return and reestablish their legal residence in Texas the minor must be classified as a nonresident until the first registration after the parents have resided in the state for a 12-month period following their return.

II. Residence of Individuals Over Twenty-One.

Statute: Section 54.052 (d) An individual twenty-one (21) years of age or over who has come from outside Texas and who is gainfully employed in Texas for a 12-month period immediately preceding registration in an educational institution shall be classified as a resident student as long as he continues to maintain a legal residence in Texas; and

Section 54.052 (e) An individual twenty-one (21) years of age or over who resides out of the state or who has come from outside Texas and who registers in an educational institution before having resided in Texas for a 12-month period shall be classified as a nonresident student.

Section 54.054 A nonresident student classification is presumed to be correct as long as the residence of the individual in the state is primarily for the purpose of attending an educational institution. After residing in Texas for at least twelve (12) months a nonresi-
dent student may be reclassified as a resident student as provided in the rules and regulations adopted by the Coordinating Board, Texas College and University System. Any individual reclassified as a resident student is entitled to pay the tuition fee for a resident of Texas at any subsequent registration as long as he continues to maintain his legal residence in Texas.

Establishment of Residence. Any individual 21 years of age or over who moves into the state and who is gainfully employed within the state for a period of 12 months prior to enrolling in an educational institution (defined as any institution of higher education, public or private, above the high school level) is entitled to classification as a resident. If such 12 months' residence, however, can be shown not to have been for the purpose of establishing legal residence in the state but to have been for some other purpose, the individual is not entitled to be classified as a resident. Any student registering in an educational institution prior to having resided in the state for 12 months shall be classified as a nonresident for tuition purposes.

A person classified as a nonresident student upon his first enrollment in an institution of higher education is presumed to be a nonresident for the period during which he continues as a student. If such nonresident student withdraws from school and resides in the state while gainfully employed for a period of 12 months, upon re-entry into an institution of higher education he will be entitled to be reclassified as a resident for tuition purposes. Accumulations of summer and other vacation periods do not satisfy this requirement. A student is not entitled to reclassification after a residence in the state for 12 months merely on the basis of his or his wife's employment, registration to vote, registration of a motor vehicle and payment of personal property taxes thereon, or the securing of a Texas driver's license. The presumption of a "nonresident" is not a conclusive presumption, however, and other facts may be considered to determine if the presumption has been overcome. Material to this determination are business or personal facts or actions unequivocally indicative of a fixed intention to reside permanently in the state including, but not limited to, the length of residence and full-time employment prior to registering in the institution, the fact of full-time employment and the nature of such employment (regular industrial, business or professional employment as distinguished from student-type employment) while a student,
purchase of a homestead with substantial down-payment, and
marriage to a resident of Texas. All of these facts are weighed in
the light of the fact that a student's residence while in school is
primarily for the purpose of education and not to establish resi-
dence, and that decisions of an individual as to residence are gen-
erally made after the completion of an education and not before.

III. Married Students.
Statute: Section 54.056 A nonresident who marries and remains
married to a resident of Texas, classified as such under this Act at
the time of the marriage and at the time the nonresident registers,
is entitled to pay the resident tuition fee regardless of the length
of time he has lived in Texas, and any student who is a resident of
Texas who marries a nonresident is entitled to pay the resident
tuition fee as long as he does not adopt the legal residence of the
spouse in another state.

Nonresident Who Marries a Resident of Texas. The nonresident
male or female student who marries a resident of Texas is entitled
to pay the resident tuition at the registration period next following
the date of marriage upon submission of evidence of such marriage
and of the spouse's legal residence in Texas. The legal residence of
a wife, regardless of her age, follows that of her husband. There-
fore, a woman who is a resident of Texas and who marries a non-
resident shall be classified as a nonresident for all enrollment peri-
ods subsequent to her marriage; provided, however, that she shall
be permitted to pay the resident tuition so long as she does not
affirmatively by her actions adopt the legal residence of her hus-
band (for example, registering to vote in another state).
In the event a nonresident male or female student who marries a
resident of Texas, and subsequently, is divorced, such nonresident
student shall be classified as a nonresident for all enrollment peri-
ods subsequent to the date of such divorce.

IV. Military Personnel and Veterans.
Statute: Section 54.058 (a) Military personnel are classified as pro-
vided by this section in the following manner:

(b) An officer, enlisted man or woman, selectee or draftee of the
Army, Army Reserve, Army National Guard, Air National Guard,
Texas State Guard, Air Force, Air Force Reserve, Navy, Navy Re-
serve, Marine Corps, Marine Corps Reserve, Coast Guard, or Coast
Guard Reserve of the United States, who is assigned to duty in Texas is entitled to register himself, his spouse, and their children in a state institution of higher education by paying the tuition fee and other fees or charges required of Texas residents, without regard to the length of time he has been assigned to duty or resided within the state. However, out-of-state Army National Guard or Air National Guard members attending training with Texas Army or Air National Guard members under National Guard Bureau regulations may not be exempted from nonresident tuition by virtue of that training status nor may out-of-state Army, Air Force, Navy, Marine Corps, or Coast Guard Reserves training with units in Texas under similar regulations be exempted from nonresident tuition by virtue of such training status. It is the intent of the legislature that only those members of the Army or Air National Guard, Texas State Guard, or other reserve forces mentioned above be exempted from the nonresident tuition fee and other fees and charges only when they become members of Texas units of the military organizations mentioned above.

(c) As long as they reside continuously in Texas, the spouse and children of a member of the Armed Forces of the United States who has been assigned to duty elsewhere immediately following assignment to duty in Texas are entitled to pay the tuition fees and other fees or charges provided for Texas residents.

(d) If nonresident military personnel are attending an institution of higher education under a contract between the institution and any branch of the Armed Forces of the United States, in which the tuition of the member of the military is paid in full by the United States Government, the student shall pay the nonresident tuition fee;

(e) A Texas institution of higher education may charge to the United States Government the nonresident tuition fee for a veteran enrolled under the provisions of a Federal law or regulation authorizing educational or training benefits for veterans;

(f) The spouse and children of a member of the Armed Forces of the United States who dies or is killed are entitled to pay the resident tuition fee, if the wife and children become residents of Texas within 60 days of the date of death; and

(g) If a member of the Armed Forces of the United States is stationed outside Texas and his spouse and children establish resi-
In Texas by residing in Texas and by filing with the Texas institution of higher education at which they plan to register a letter of intent to establish residence in Texas, the institution of higher education shall permit the spouse and children to pay the tuition, fees, and other charges provided for Texas residents without regard to length of time that they have resided within the State.

A. Certification of Assignment to Duty in Texas. Subsection (b) provides that military personnel assigned to duty within the State of Texas, their husband or wife as the case may be, and their children, shall be entitled to pay the same tuition as a resident of Texas regardless of the length of their physical presence in the state. To be entitled to pay the resident tuition fees, such military personnel shall submit at the time of each registration a statement from his commanding officer or personnel officer certifying that he is then assigned to duty in Texas and that same will be in effect at the time of such registration in an institution of higher education. This subsection also provides that a nonresident member of an out-of-state National Guard unit who is temporarily training with a Texas National Guard unit will not be entitled to pay the resident tuition.

B. Spouse and Children of Member of Armed Services. Subsection (c) provides that the spouse and children of a member of the armed forces assigned to duty outside the State of Texas immediately after assignment in Texas may be entitled to pay the resident tuition as long as they reside continuously in Texas.

Subsection (g) provides that the spouse and children of a member of the armed forces who is assigned to duty outside the State of Texas and sends his family to the State of Texas may be entitled to pay the resident tuition if they file with the institution of higher education at which the student intends to register a letter of intent, an affidavit or other evidence satisfactory to the institution stating that they intend to become permanent residents of Texas.

Subsection (f) provides that a member of the immediate family (which shall include spouse or children) of a member of the armed forces who dies or is killed in action while in military service may qualify to pay the resident tuition if they become residents of Texas within 60 days of the date of death. To qualify under this provision, the student shall submit to the institution of higher education satisfactory evidence establishing the date of death and residence in Texas.
The military personnel spouse and children enumerated in (b), (c), (f), and (g) are classified as nonresidents but shall be entitled to pay the resident tuition regardless of their length of residence in Texas if they comply with the provisions of the statute and these rules and regulations.

C. Nonresident Military Personnel Attending College Under Contract. Subsection (d) provides that nonresident military personnel attending an institution of higher education under a contract with any branch of the armed forces where the tuition is paid in full under the provisions of such contract shall be charged nonresident tuition even though such military personnel may be assigned to duty pursuant to military orders at an institution of higher education.

D. Nonresidents Attending College Under Benefits Programs for Veterans. Subsection (e) provides that the institution of higher education may charge the nonresident tuition fee for a nonresident veteran to the United States Government under the provisions of any federal law or regulation authorizing educational or training benefits for veterans.

E. Legal Residence of Person in Military Service. A person in military service is presumed to maintain during his entire period of active service the same legal residence which was in effect at the time he entered military service. A person stationed in a state on military service is presumed not to establish a legal residence in that state because his presence is not voluntary but under military orders. It is possible for a member of the military service to abandon his domicile of original entry into the service and to select another, but to show establishment of a new domicile during the term of active service, there must be clear and unequivocal proof of such intent. An extended period of service alone is not sufficient. The purchase of residential property is not conclusive evidence unless coupled with other facts indicating an intent to put down roots in the community and to reside there after termination of military service. Evidence which will be considered in determining this requisite intent includes, but is not limited to a substantial investment in a residence and the claiming of a homestead exemption thereon, registration to vote, and voting in local elections, registration of an automobile in Texas and payment of personal property taxes thereon, obtaining a Texas driver's license, main-
aining checking accounts, savings accounts, and safety deposit boxes in Texas banks, existence of wills or other legal documents indicating residence in Texas, change of home-of-record and designation of Texas as the place of legal residence for income tax purposes on military personnel records, business transactions or activities not normally engaged in by military personnel, membership in professional or other state organizations, and marriage to a resident of Texas. Purchase of property during terminal years of military service preceding retirement generally is given greater weight than a similar purchase made prior to such terminal period.

F. Residence Classification of Veterans Upon Separation from Military Service. A person who enrolls in an institution of higher education following his separation from military service must be classified as a nonresident student unless, (1) he was a legal resident of Texas at the time he entered military service and has not relinquished that residence, (2) he can prove that during his military service he has, in fact, established a bona fide, legal residence in Texas at a time at least 12 months prior to his registration, or (3) he has resided in Texas other than as a student for 12 months prior to his registration and subsequent to his discharge from service.

V. Employees of Institutions of Higher Education Other Than Students.

Statute: Section 54.059 A teacher, professor, or other employee of a Texas institution of higher education is entitled to register himself, his spouse, and their children in a state institution of higher education by paying the tuition fee and other fees or charges required for Texas residents without regard to the length of time he has resided in Texas. A teacher, professor, or other employee of a Texas institution of higher education is any person employed at least one-half time on a regular monthly salary basis by a state institution of higher education.

A person employed at least half-time on a regular monthly salary basis (not an hourly employee) by any public institution of higher education, with an effective date of employment on or before the 12th class day of a regular semester or the 4th class day of a summer term, may pay the same tuition as a resident of Texas for himself, his husband or wife as the case may be and their children, regardless of the length of residence in the state. To be entitled to
pay the resident tuition fees such employee must submit prior to
the time of each registration a statement from the Director of Per-
sonnel or a designated representative of the institution of higher
education for which he is employed certifying that such employ-
ment will be in effect at the time of registration.

VI. Student Employees.
Statute: Section 54.051 (o) A teaching assistant, research assistant,
or other student employee of any institution covered by this section
is entitled to register himself, his spouse, and their children in a
state institution of higher education by paying the tuition fees and
other fees or charges required for Texas residents, without regard
to the length of time he had resided in Texas; provided that said
student employee is employed at least one-half time in a position
which relates to his degree program under rules and regulations
established by the employer institution. This exemption shall con-
tinue for students employed two consecutive semesters through
the summer session following such employment if the institution
is unable to provide employment and, as determined under stand-
ards established by the institution, if the employee has satisfac-
torily completed his employment.

A student employed at least half-time by any public institution of
higher education in a position which relates to his degree program,
with an effective date of employment on or before the 12th class
day of a regular semester, or the 4th class day of a summer term,
may pay the same tuition as a resident of Texas for himself, his
husband or wife as the case may be, and their children regardless
of the length of residence in the state. The institution which em-
loys the student shall determine whether or not the student's job
relates to his degree program. If a student is employed by an insti-
tution of higher education for consecutive Fall and Spring semes-
ters and he was further eligible to pay the tuition charged to Texas
residents during those Fall and Spring semesters because of the
provisions of this subsection, then the student may continue to pay
the resident tuition rate during the summer session following the
Spring employment if the institution is unable to provide em-
ployment and if the student has satisfactorily completed his
employment.

VII. Competitive Scholarships.
Statute: Section 54.051 (p) A nonresident student holding a com-
petitive scholarship of at least $200 for the academic year or summer for which he is enrolled is entitled to pay the fees and charges required of Texas residents without regard to the length of time he has resided in Texas, provided that he must compete with other students, including Texas residents, for the scholarship and that the scholarship must be awarded by a scholarship committee officially recognized by the administration of the institution of higher education.

An official scholarship committee or committees of a public institution of higher education may award competitive scholarships in amounts of $200 or more for the academic year, the summer session or both. If a nonresident student obtains one of these competitive scholarships, he may pay the same tuition as a resident of Texas during the registration period in which the scholarship is in effect. The student must present a statement from the official scholarship committee certifying that such scholarship will be in effect at the time of registration.

VIII. Citizens of Any Country Other Than the United States of America.

Statute: Section 54.057 An alien who is living in this country under a visa permitting permanent residence or who has filed with the proper Federal immigration authorities a declaration of intention to become a citizen has the same privilege of qualifying for resident status for fee purposes under this Act as has a citizen of the United States. A resident alien residing in a junior college district located immediately adjacent to Texas boundary lines shall be charged the resident tuition by that junior college.

Citizens of any country other than the United States of America who are in this country on a student visa or a visa other than one entitling them to immigrant status and who enroll in an institution of higher education covered by Section 54.051 of the Texas Education Code shall be classified as "... students who are citizens of any country other than the United States of America..." for purposes of Section 1 (a) (7) of Article 2854c, V.T.C.S. Such a student who is in this country on an immigrant visa can be classified as a resident student if he has resided in the state for a period of 12 months under circumstances indicating his intention to reside permanently in Texas and not merely to complete his education. To this extent a citizen of any country other than the United States of America
residing in Texas on an immigrant visa shall be in no different position than the citizen of the United States who has been a resident of another state. A citizen of any country other than the United States of America residing in the United States of America in a state other than Texas on an immigrant visa and has established his intent to reside permanently in such other state shall be classified as a nonresident.

IX. Reciprocity Clause Applicable to Junior Colleges.
Statute: Section 54.060 The nonresident tuition fee prescribed in this Act does not apply to a nonresident student who is a resident of a state situated adjacent to Texas and who registers in any Texas public junior college situated immediately adjacent to the state in which the nonresident student resides. The nonresident student described in this Subsection shall pay an amount equivalent to the amount charged a Texas student registered at a similar school in the state in which the nonresident student resides.

X. Student Responsibilities.
A. Student Responsibility to Register Under Proper Classification. The responsibility of registering under the proper residence classification is that of the student, and if there is any question of his right to classification as a resident of Texas, it is his obligation, prior to or at the time of his registration, to raise the question with the administrative officials of the institution in which he is registering and have such officially determined.

B. Notification Upon Becoming a Nonresident. Every student who is classified as a resident student but who becomes a nonresident at any time by virtue of a change of legal residence by his own action or by the person controlling his domicile is required to notify the proper administrative officials of his institution at once.

XI. Official Change of Residence Status.
A. Application for Reclassification. Every student classified as a nonresident student shall be considered to retain that status until such time as he shall have made written application for reclassification in the form prescribed by the institution and shall have been officially reclassified in writing as a resident of Texas by the proper administrative officers of the institution.

B. Reclassification as a Nonresident. Every person who has been classified as a resident of Texas shall be reclassified as a nonresi-
dent student whenever he shall report, or there is found to exist, circumstances indicating a change in legal residence to another state. If any student who has been classified as a resident of Texas shall be found to have been erroneously so classified, he shall be reclassified as a nonresident and shall be required to pay the difference between the resident and nonresident fees for such semesters in which he was so erroneously classified. In addition, he shall be required to pay back all monies borrowed from the Texas Opportunity Plan Fund.

C. Reclassification as a Resident. If any student has been erroneously classified as a nonresident student and subsequently proves to the satisfaction of the appropriate officials of an institution of higher education that he should have been classified as a resident student, he shall be reclassified as a resident of Texas and shall be entitled to a refund of the difference between the residence and nonresident fees for the semester in which he was so erroneously classified.

XII. Penalties.

Statute: Section 54.053 The governing board of each institution required by this Act to charge a nonresident tuition or registration fee is subject to the rules, regulations, and interpretations issued by the Coordinating Board, Texas College and University System, for the administration of the nonresident tuition provisions of this Act. The rules, regulations, and interpretations promulgated by the Coordinating Board shall be furnished to the presidents or administrative heads of all Texas public senior and junior colleges and universities.

Section 54.061 The governing board of an institution of higher education may assess and collect from each nonresident student who fails to comply with the rules and regulations of the boards concerning nonresident fees a penalty not to exceed $10 a semester.

Student Compliance with Institutional Rules and Regulations. Each institution has been authorized by statute to assess and collect from each nonresident student failing to comply with the provisions of the tuition statute and with these interpretations concerning nonresident fees a penalty not to exceed $10.00 a semester. In addition, if a student has obtained residence classification by virtue of deliberate concealment of facts, or misrepresenta-
tion of fact, he may be subject to appropriate disciplinary action, in accordance with the rules and regulations that may be adopted by the governing boards of the respective institutions of higher education.

XIII. University Regulations.

Effect of Absence from the University. Every student returning to the University after an absence of more than one semester is required to file a residence questionnaire on a form furnished by the Registrar.
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DIRECTORY FOR CORRESPONDENCE

Requests for information should be directed to the offices shown below. The University's address is: The University of Texas at San Antonio, 4242 Piedras Drive East, Suite 250, San Antonio, Texas 78284. The telephone number is (512) 732-2141.

Admission
(Undergraduate and graduate) Director of Admissions
Financial Aid, Loans or
Scholarships Office of Student Financial Aid
Financial Matters Office of Fiscal Services
General Information Director of Admissions
International Students Director of Admissions
Registration Registrar
Residency Registrar
Student Employment Office of Student Financial Aid
Student Services Dean of Students
Transcripts Registrar
Veterans Affairs Registrar